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U.S. Army Corps of Engineers

Omaha District
Offutt AFB, Nebraska

SENECA ARMY DEPOT ACTIVITY
TIME SENSITIVE GEOPHYSICAL INVESTIGATION
ROMULUS, NEW YORK

Contract No. DACA45-98-D-0004
Task Order No. 0037

FINAL
SITE-SPECIFIC PROJECT REPORT
SEAD 45/115 OPEN DETONATION GROUNDS
ORDNANCE AND EXPLOSIVES REMOVAL
PHASE I GEOPHYSICAL SURVEY AND COST ESTIMATE

March 2005

01M-0007

WESTON SOLUTIONS
Restoring Resource Efficiency

SENECA ARMY DEPOT ACTIVITY
TIME SENSITIVE GEOPHYSICAL INVESTIGATION
ROMULUS, NEW YORK

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Contract No. DACA45-98-D-0004
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Prepared for:

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
Offutt AFB, Nebraska

Prepared by:

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Manchester, New Hampshire 03101-1501

March 2005

W.O. No. 20074.515.037

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LIST OF ACRONYMS

ACRs	ammunition consumption reports
AOIs	areas of investigation
bgs	below ground surface
DID	data item description
DQOs	data quality objectives
EE/CA	environmental evaluation/cost analysis
EM	electromagnetic
EOTI	Explosive Ordnance Technologies, Inc.
ft	foot/feet
GPO	geophysical prove-out
GPS	global positioning system
MEC	munitions and explosives of concern
mm	millimeter
MOFBs	miniature open front barricades
mV	millivolts
ODG	open detonation grounds
Parsons	Parsons Engineering
QA	quality assurance
QC	quality control
RTK	real time kinematics
SEDA	Seneca Army Depot Activity
SOW	scope of work
TO	task order
USACE	United States Army Corps of Engineers
UXO	unexploded ordnance
WESTON®	Weston Solutions, Inc.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

A time-sensitive geophysical investigation was conducted at the Seneca Army Depot Activity, SEAD 45/115 Open Detonation Grounds (ODG) between 2 June 2003 and 27 August 2003. The primary objective of this project was to conduct a time-sensitive geophysical investigation and anomaly identification between the 1,000-foot (ft) and 2,500-ft radial limits of the ODG. The purpose for collecting this information was to generate mapping and database information that could be used to refine acreage estimates for the remedial zones outlined in the *Environmental Evaluation/Cost Analysis* (Parsons, 2001), and to develop a cost estimate for future munitions and explosives of concern (MEC) removal actions at the site. Activities required to accomplish these objectives included a MEC avoidance inspection, vegetation clearing, surveying, and both digital and manual geophysical mapping. Weston Solutions, Inc. (WESTON®) performed this work for the United States Army Corps of Engineers (USACE), Omaha District under Rapid Response Contract No. DACA-45-98-D-0004, Task Order No. 0037. Direct oversight was provided by USACE, New York District. Additional support was provided by USACE (Huntsville) and USACE (Baltimore) for quality assurance.

A *Geonics, Ltd.* EM-61 MK2™ towed-array system was used to collect digital geophysical mapping data in all non-wooded/open areas (213 acres) between the 1,000-ft and 2,500-ft radial limits of the ODG. A manual "mag & flag" approach using hand-held *Schonstedt* Magnetometers was used to locate subsurface anomalies in wooded/transect areas (9.65 acres). Results of the digital and manual geophysical surveys indicate that approximately 599 targets per acre exist in non-wooded areas between 1,000 feet (ft) and 1,500 ft from the ODG Center, approximately 139 targets per acre exist in non-wooded areas between 1,500 ft and 2,500 ft from the ODG Center, and approximately 208 targets per acre exist in wooded (transect) areas.

A total of 512 items were manually excavated from target anomaly locations identified using the EM-61 MK2 in non-wooded/open areas of the ODG. Approximately 97% of these items were found at a maximum depth of 12 inches below ground surface (bgs). No items were excavated from a depth exceeding 20 inches bgs.

Based on the results obtained from the Phase I geophysical mapping activities, WESTON has estimated a cost of $126 per target for Phase II MEC removal and disposal. This unit cost will invariably increase or decrease based on the location of the target relative to the ODG center, vegetation conditions (i.e., wooded or non-wooded areas), and depth of the target. Phase II work began in September 2003, and is currently ongoing between the 1,500-ft and 2,500-ft radial limits of the ODG.

SECTION 1

INTRODUCTION

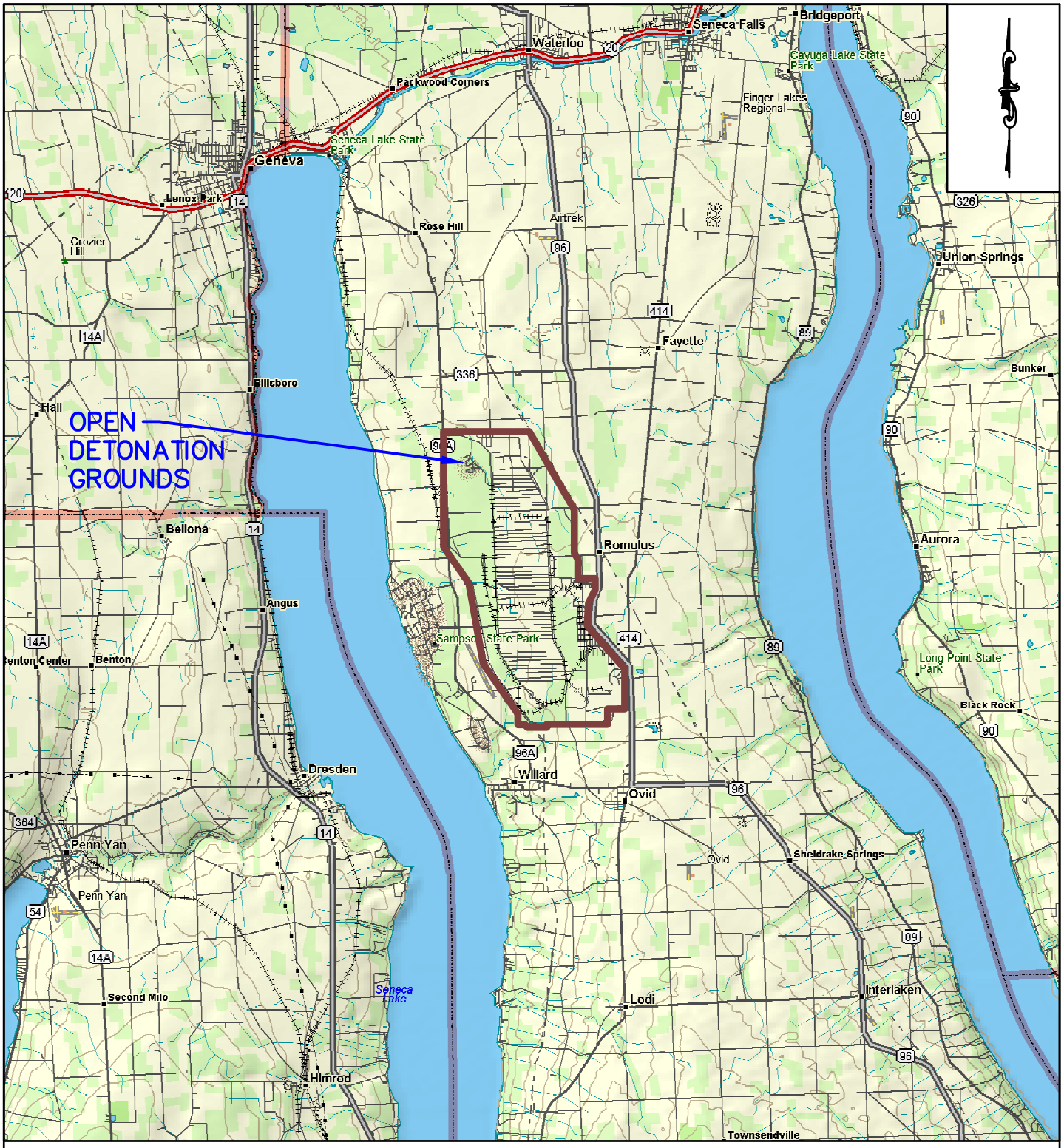
1. INTRODUCTION

This Final Site-Specific Project Report describes the results of the Phase I time-sensitive geophysical investigation of potential munitions and explosives of concern (MEC) and munitions debris within the SEAD 45/115 Open Detonation Grounds (ODG) at the Seneca Army Depot Activity (SEDA). Weston Solutions, Inc. (WESTON®) performed this work for United States Army Corps of Engineers (USACE), Omaha District under Rapid Response Contract No. DACA-45-98-D-0004, Task Order (TO) No. 0037. Additional support was provided by USACE (Huntsville) and USACE (Baltimore) for quality assurance. This Final Project Report has been prepared in accordance with the *Final Scope of Work* (*SOW*) (USACE, 25 March 2003), Modifications No. 0002 and No. 0003 to the *Final SOW* (USACE, 12 June and 8 July 2003), and Data Item Description (DID) OE-030.01.

1.1 SITE DESCRIPTION AND BACKGROUND

The SEDA facility is located in Seneca County, Romulus, New York. It is a United States Army site that occupies approximately 10,600 acres. It is bounded to the west by State Route 96A and to the east by State Route 96. Geneva and Rochester are located to the northwest (14 and 50 miles, respectively), Syracuse is 50 miles to the northeast, and Ithaca is 31 miles to the south. The surrounding area outside the SEDA property is used mainly for agriculture. A Site Location Map is shown in Figure 1-1.

The SEDA facility was constructed in 1941, and was operated by the United States Army until its closure in July 2000. From 1941 to 1995, the site was used for receipt, storage, maintenance, and supply of military items including munitions and equipment. In 1989, SEDA was included on the Federal Facilities National Priorities List, which mandated that necessary remedial investigations and actions be completed for the site. Following a recommendation from USACE in 1998, Parsons Engineering (Parsons) conducted an *Environmental Evaluation/Cost Analysis* (*EE/CA*) to identify and develop response actions for specific areas of investigation (AOIs). The SEAD 45/115 ODG was one of eleven AOIs identified in the *EE/CA* (Parsons, 2001).



SOURCE:
USGS TOPOGRAPHY MAPS; GENEVA SOUTH, DRESDEN, OVID, & ROMULUS – NEW YORK QUADS

GRAPHIC SCALE
3 1.5 0 1.5 3
APPROXIMATE SCALE IN MILES

TIME SENSITIVE GEOPHYSICAL INVESTIGATION
SENECA ARMY DEPOT ACTIVITY (SEDA)
ROMULUS, NEW YORK

DEPARTMENT OF THE ARMY
OMAHA DISTRICT
CORPS OF ENGINEERS
OFFUTT, NEBRASKA

SITE LOCATION MAP

WESTON SOLUTIONS
MANCHESTER NEW HAMPSHIRE

DRAWN	BEG
DATE	SEPT 2003
FIGURE NO.	1–1

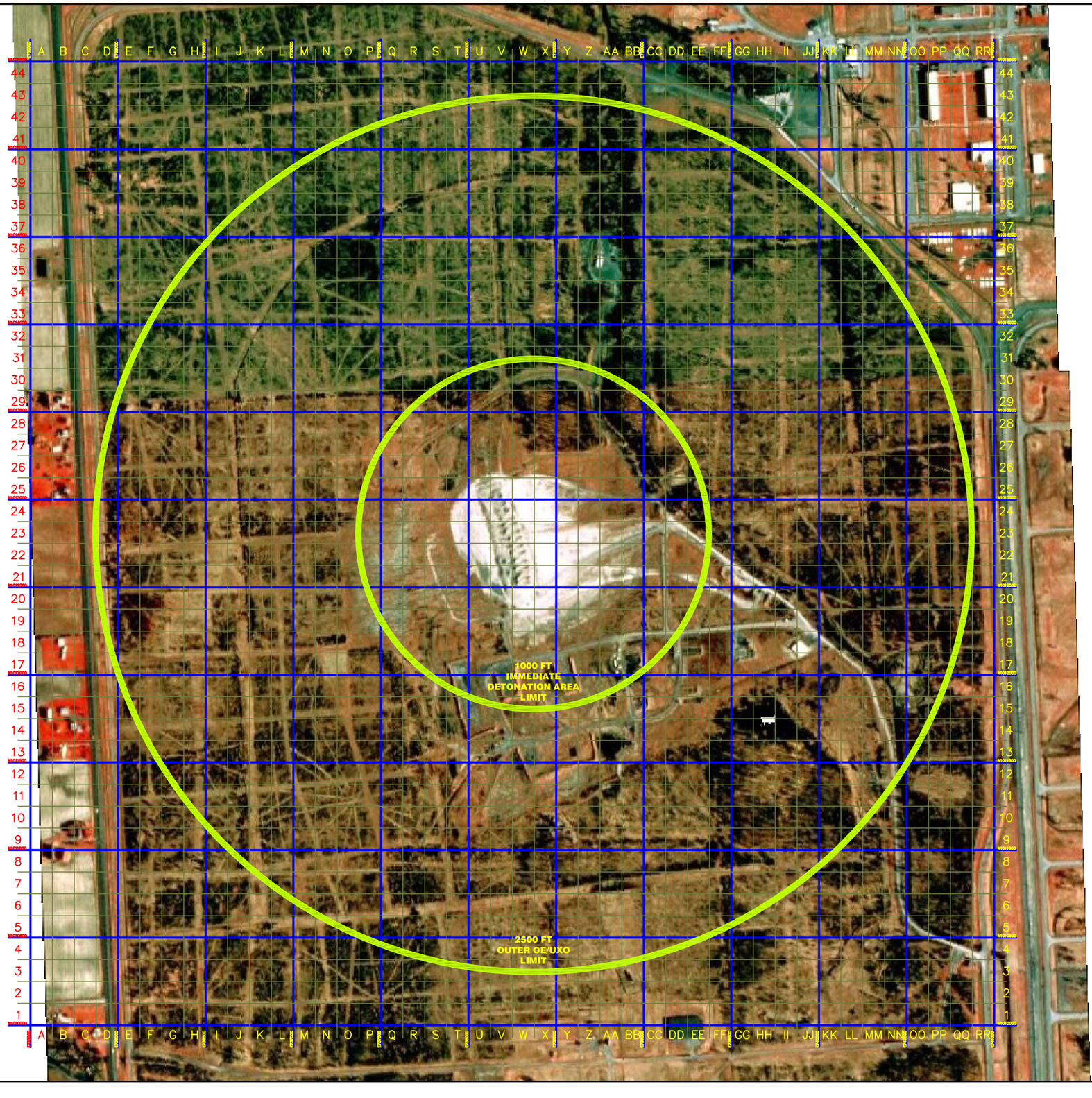
M:\Design\DWG\ACOE\SENECA\OD GROUNDS\Phase I Report\Draft\LOCUS.dwg, FIG 1-1, 3/2/2005 12:34:13 PM, girardeb, 1:1

The ODG was formerly used for the disposal and detonation of military munitions, and consequently MEC and munitions debris are prevalent throughout this area. The ODG consists of a large open area located in the northwest corner of the SEDA property. It is comprised of approximately 450 acres of wooded and non-wooded areas. For the purposes of this project, the specific areas to be geophysically investigated were divided into an inner radius [0 feet (ft) to 1,000 ft] and an outer radius (1,000 ft to 2,500 ft) from the ODG Center as shown in Figure 1-2. Based on the *EE/CA* (Parsons, 2001), the inner 1,000-foot (ft) radius is considered saturated with potential MEC and munitions debris.

1.2 PROJECT OBJECTIVES

The primary objective of this project was to conduct a time-sensitive geophysical investigation and anomaly identification between the 1,000-ft and 2,500-ft radial limits of the ODG. The purpose for collecting this information was to generate mapping and database information that could be used to refine acreage estimates for the remedial zones outlined in the *EE/CA* (Parsons, 2001), and to develop a cost estimate for future MEC removal actions at the site. Activities required to accomplish these objectives included a MEC avoidance inspection, vegetation clearing, surveying, and both digital and manual geophysical mapping.

For tracking and reference purposes, a geospatial 125-ft by 125-ft grid system was established for the site using existing North American Datum 83 New York Central State Plane Coordinates (refer to Figure 1-2). Grids were numbered 1 through 44 from south to north, and lettered “A” through “RR” from west to east. In the field, the inner and outer radial limits of the ODG were identified using stakes and/or flagging.



GRAPHIC SCALE

500 250 0 250 500

APPROXIMATE SCALE IN FEET

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OMAHA DISTRICT
CORPS OF ENGINEERS
OFFUTT AFB, NEBRASKA

TIME SENSITIVE GEOPHYSICAL INVESTIGATION
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK

OPEN DETONATION GROUNDS SURVEY MISSION PLAN

DRAWN	DATE	FIGURE NO.
BEG	SEPT 2003	1-2
CHECKED	W.O. NO.	

M:\Design\DWG\ACOE\SENECA\OD GROUNDS\Phase I Report\Draft\FIG 1-2.dwg, FIG 1-2, 3/3/2005 12:55:37 PM, girardeb, 1:1

SECTION 2

GEOPHYSICAL INVESTIGATION AND RESULTS

2. GEOPHYSICAL INVESTIGATION AND RESULTS

The following section describes implementation of the Phase I time-sensitive geophysical investigation including method/instrumentation selection, site preparation, digital mapping procedures, quality assurance (QA)/quality control (QC) measures, and final results. Information in this section is organized as follows:

- Subsection 2.1 – Equipment Selection and Geophysical Prove-Out (GPO)
- Subsection 2.2 – Site Preparation
- Subsection 2.3 – Full-Scale Geophysical Investigation
- Subsection 2.4 – Results
- Subsection 2.5 – QA/QC
- Subsection 2.6 – Demobilization

2.1 EQUIPMENT SELECTION AND GEOPHYSICAL PROVE-OUT

A *Geonics, Ltd.* EM-61 MK2™ towed-array system (Photos 1 and 2, Appendix A) was the digital mapping equipment selected for implementation of the geophysical investigation. The battery-powered EM-61 MK2 towed-array consists of three (3) EM-61 MK2 high-sensitivity metal detectors and operates at a maximum output of 10,000 millivolts (mV). The system generates a pulsed magnetic field that induces eddy currents in conductive objects within the subsurface. These currents are proportional to the conductive nature of the material below the instrument. When a conductive object is located below the instrument, the amplitude and decay time of the induced eddy currents vary in response to the size, mass, depth and orientation of the object. Using the amplitude and duration of response of the object with respect to different time gates, the relative size and depth of the object can be determined. The effective detection depth for the EM-61 MK2 towed-array is a function of target characteristic (i.e., composition, mass, and orientation) and local terrain noise.

The EM-61 MK2 towed-array system used for this project was constructed with fiberglass and plastic material to provide lightweight, rigid construction, and to prevent noise introduction during data collection. Each coil was separated by 3 ft and arranged in a pyramid-shaped geometry. The system was integrated with a Model 4700 Trimble Real Time Kinematics (RTK) Global Positioning System (GPS) to accurately position the data collected for each coil. The

logging system was set to record data at a rate of 12 Hertz (samples per second) while being towed.

Prior to initiating the full-scale investigation, WESTON's subcontractor (Parsons) demonstrated the MEC and munitions debris detection capabilities of the EM-61 MK2 towed-array by performing a series of three GPO surveys. The GPO surveys were performed on 24 April 2003 in accordance with USACE DID OE-005-05A.01 (*Geophysical Prove-Out (GPO) Plan and Report*). Under USACE instruction, WESTON established two non-contiguous GPO grids (West GPO and South GPO) and one pre-existing GPO grid (Q Area) to test the positioning capabilities, effectiveness, and accuracy of the equipment. Each GPO grid was less than one (1) acre in size and seeded with known ferrous items representative of the size, shape, and depth of MEC likely to be found within the ODG. Seed items were placed at depths up to 42 inches below ground surface (bgs). Results from the GPO investigations indicated that the EM-61 MK2 towed-array system was a suitable technology for conducting the full-scale geophysical survey. A copy of Parsons' *Work Plan* and GPO Letter Report are included in Appendices G and H, respectively of WESTON's *Final Work Plan* (July 2003). A copy of Parsons' *Final GPO Report* dated 10 October 2003 was approved by WESTON and submitted to USACE.

2.2 SITE PREPARATION: MEC AVOIDANCE AND BRUSH CLEARING

Prior to conducting the full-scale geophysical investigation, a team of unexploded ordnance (UXO) Technicians was mobilized to the site to provide support in removing surface MEC and munitions debris that could impede progress, effectiveness, or safety during site clearing and geophysical investigation activities. Explosive Ordnance Technologies, Inc. (EOTI) conducted the MEC avoidance inspections between 13 May and 28 May 2003. One surface MEC item [37-millimeter (mm) projectile, unfuzed] found on 5 June 2003 was explosively vented on 13 June 2003.

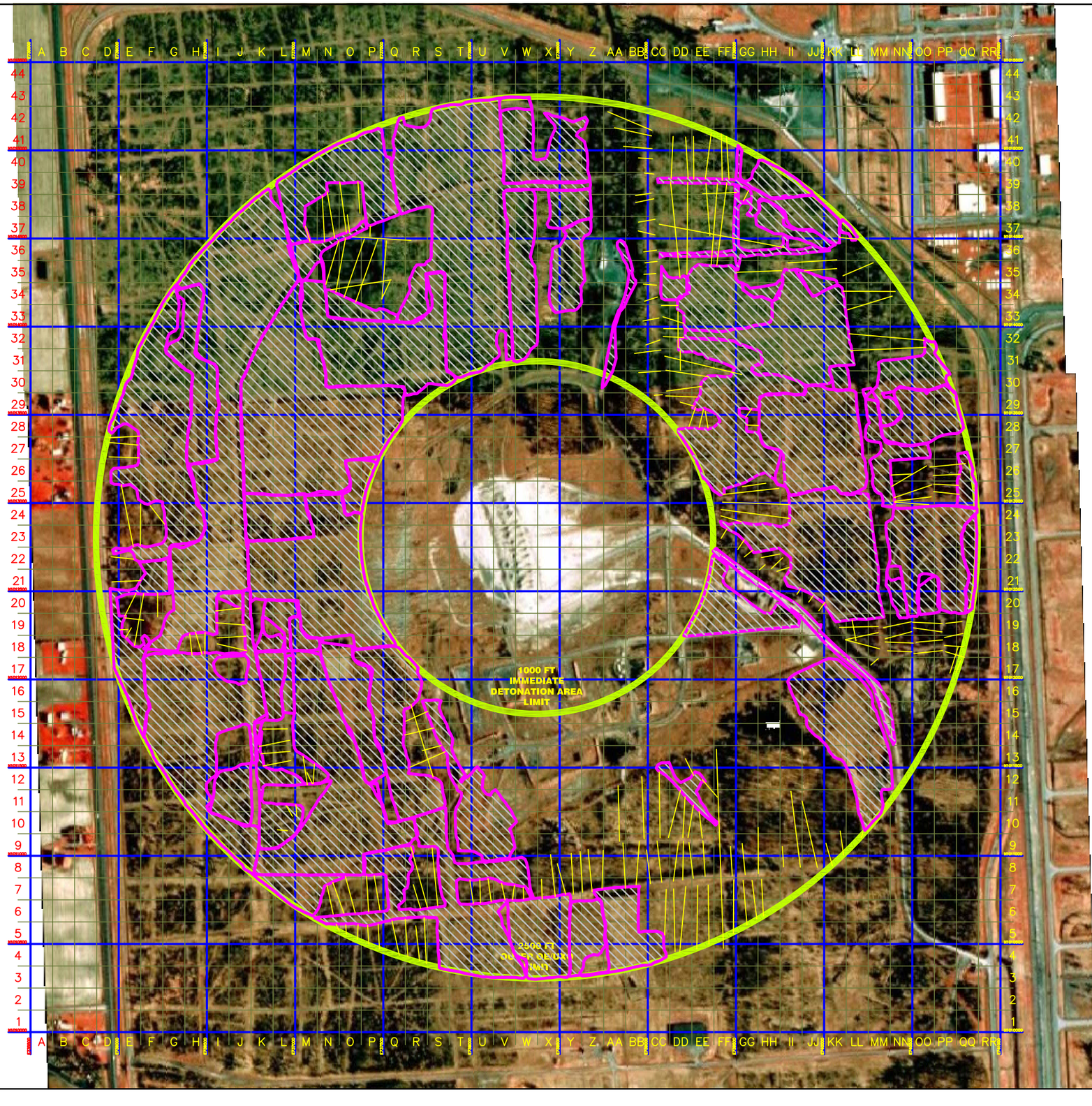
Following the MEC surface sweep, portions of the site were cleared of vegetation to increase accessibility and achieve maximum coverage during the full-scale geophysical investigation. Sessler Wrecking conducted site clearing activities, under direction from WESTON, between

14 May and 23 June 2003. In non-wooded areas where vegetation consisted mainly of brush and small trees less than 6 inches in diameter, a total of 232.3 acres were cleared using mowers and/or a Hydra-Ax. In wooded areas where vegetation consisted of dense brush and large trees greater than 6 inches in diameter, 10-ft-wide transects (Photo 3, Appendix A) were cleared mechanically using tractor mowers and/or a Hydra-Ax, or manually by technicians as necessary. More than 220 10-ft-wide transects were cleared representing a total of 13.6 acres of wooded area. Clearing coverage and transect locations are shown in Figure 2-1. All vegetation was cut to a height of approximately 6 inches. WESTON used a Model 5700 Trimble RTK GPS (Photo 4, Appendix A) to confirm the total acreage cleared in wooded and non-wooded areas. Throughout the project, all location surveys and surface mapping that were required in conjunction with both site preparation and full-scale geophysical mapping were conducted using the Model 5700 Trimble RTK GPS in accordance with USACE DID OE.005.07.01 (*Location Surveys and Mapping Plan*).

2.3 FULL-SCALE GEOPHYSICAL INVESTIGATION

As previously stated, the geophysical investigation was conducted using the EM-61 MK2 towed-array system. A *John Deere*™ Diesel Gator 4x6 off-road vehicle was used to tow the array across the designated survey area. Each traverse was spaced approximately 10 ft apart (approximate width of the towed-array) to provide sufficient cross-line overlap between bi-directional swaths. The towed-array was navigated around obstructions such as wooded areas, trees (and tree clusters), standing water, man-made obstructions, and other miscellaneous obstacles.

As shown in Figure 2-2, a total of 213 acres within open and accessible areas between the 1,000-ft and 2,500-ft radial limits of the ODG were digitally mapped using the towed-array system. An additional 9.65 acres representing transects, hedgerows, and areas inaccessible to the towed-array were investigated manually using hand-held *Schonstedt* Magnetometers. As previously described, a total of 232.3 acres were cleared of vegetation to facilitate geophysical



LEGEND

TRANSECT LOCATIONS

CLEARED BRUSH AREA

GRAPHIC SCALE

500 250 0 250 500

APPROXIMATE SCALE IN FEET

WESTON SOLUTIONS
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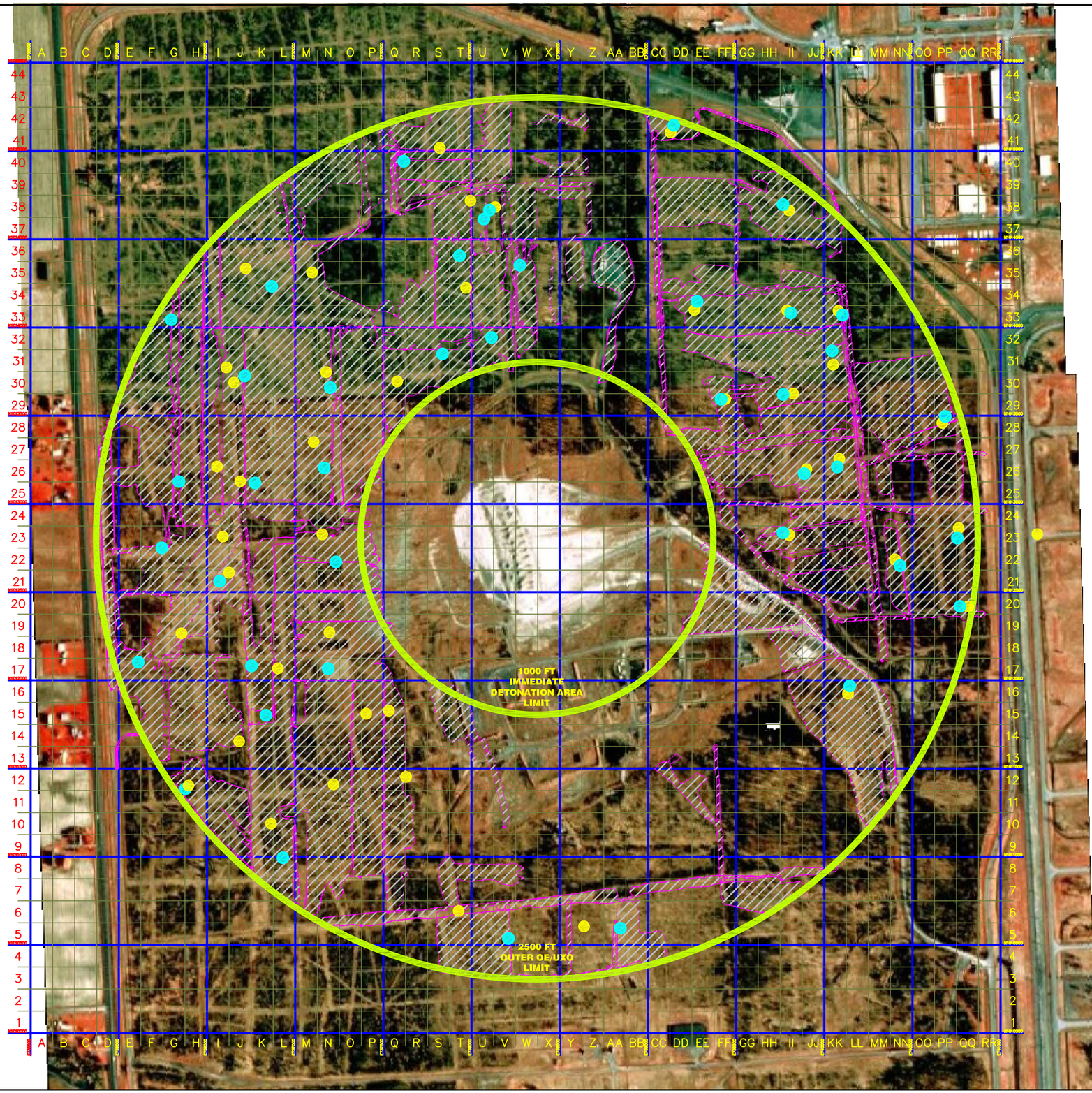
DEPARTMENT OF THE ARMY
OMAHA DISTRICT
CORPS OF ENGINEERS
OFFUTT AFB, NEBRASKA

TIME SENSITIVE GEOPHYSICAL INVESTIGATION
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK

OPEN DETONATION GROUNDS SITE CLEARING AND TRANSECT LOCATIONS

DRAWN	DATE	FIGURE NO.
BEG	SEPT 2003	2-1
CHECKED	W.O. NO.	

M:\Design\DWG\ACOE\SENECA\OD GROUNDS\Phase I Report\Draft\FIG 2-1.dwg, FIG 2-1, 3/2/2005 12:37:05 PM, girardeb, 1:1



LEGEND

- WESTON QC POINT
- USACE QA POINT
- GEOPHYSICAL INVESTIGATION COVERAGE AREA

GRAPHIC SCALE

500 250 0 250 500

APPROXIMATE SCALE IN FEET

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TIME SENSITIVE GEOPHYSICAL INVESTIGATION
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK

OPEN DETONATION GROUNDS GEOPHYSICAL INVESTIGATION COVERAGE MAP AND QA/QC SEED ITEM LOCATIONS

DRAWN	DATE	FIGURE NO.
BEG	SEPT 2003	2-2
CHECKED	W.O. NO.	

M:\Design\DWG\ACOE\SENECA\OD GROUNDS\Phase I Report\Draft\FIG 2-2.dwg, FIG 2-2, 3/2/2005 12:36:06 PM, girardeb, 1:1

mapping in the open areas. Actual survey coverage attained by the towed-array system was less than the cleared acreage due to rutted terrain and tree clusters that either created inaccessible areas to the towed-array system, or introduced significant noise in the collected data. In addition, 0.15 cumulative acres of data gaps exist in the mapping coverage due to spacing between survey lines; 0.25 acres were permitted per the Data Quality Objectives (DQOs) presented in Appendix B.

Upon completion of each daily survey, Parsons submitted raw data, digital records, and field notes to WESTON's on-site geophysicist for review. Datasets were reviewed for completeness, accuracy, and comprehensive coverage relative to the DQO metrics described in Appendix B. For datasets that did not meet the DQO requirements, one of the following response actions was taken.

- Data was recollected.
- Data was reprocessed.
- A root-cause analysis was performed and submitted to USACE.

Detailed data processing procedures are described in Appendix C.

Following analysis of the geophysical data, selected anomalies were labeled with a unique ID based on their location relative to the geospatial grid system. The coordinate position of these anomalies was entered into a database of target anomalies for future reacquisition. The target anomaly database information was entered into *UXOFast* data-logging software and uploaded to personal data assistants for locating the targets in the field.

2.4 RESULTS

The EM-61 MK2 towed-array detected a total of 52,700 anomaly targets in non-wooded/open areas between the 1,000-ft and 2,500-ft ODG limits. Of this total, 28,559 targets were located between 1,000 ft and 1,500 ft of the ODG Center (599 targets/acre) and 24,141 targets were located between 1,500 ft and 2,500 ft of the ODG Center (139 targets/acre). The target density distribution for non-wooded/open areas within the ODG is presented in Table 2-1.

Table 2-1
Target Distribution for Non-Wooded Areas

ODG Radius (ft)	No. of Targets	Area mapped (acres)	Targets/Acre
1000-1250	15,686	20.8	754
1250-1500	12,873	26.9	479
1000-1500	28,559	47.7	599
1500-1750	9,168	38.2	240
1750-2000	5,626	39.6	142
2000-2250	4,942	47.6	104
2250-2500	4,405	48.6	91
1500-2500	24,141	174	139

ft = feet

Target distribution by mV response for targets detected in non-wooded/open areas is presented in Table 2-2.

Table 2-2
Target Distribution by mV Response for Non-Wooded Areas

mV Response	Number of Targets		
	1,000 – 1,500 ft	1,500 – 2,500 ft	Total
0 – 10	423	1,446	1,869
10.1 – 20	5,384	10,974	16,358
20.1 – 30	3,463	3,387	6,850
30.1 – 40	2,604	1,822	4,426
40.1 – 50	1,978	1,119	3,097
> 50.1	14,707	5,393	20,100
		Total	**52,700**

ft = feet
mV = millivolts

In addition to the anomaly target locations identified using the towed-array, a total of 2,829 discrete targets were detected using hand-held magnetometers within 132 of the

220 transects. This survey encompassed approximately 9.65 acres of wooded area, which equates to a target density distribution of approximately 208 targets per wooded acre.

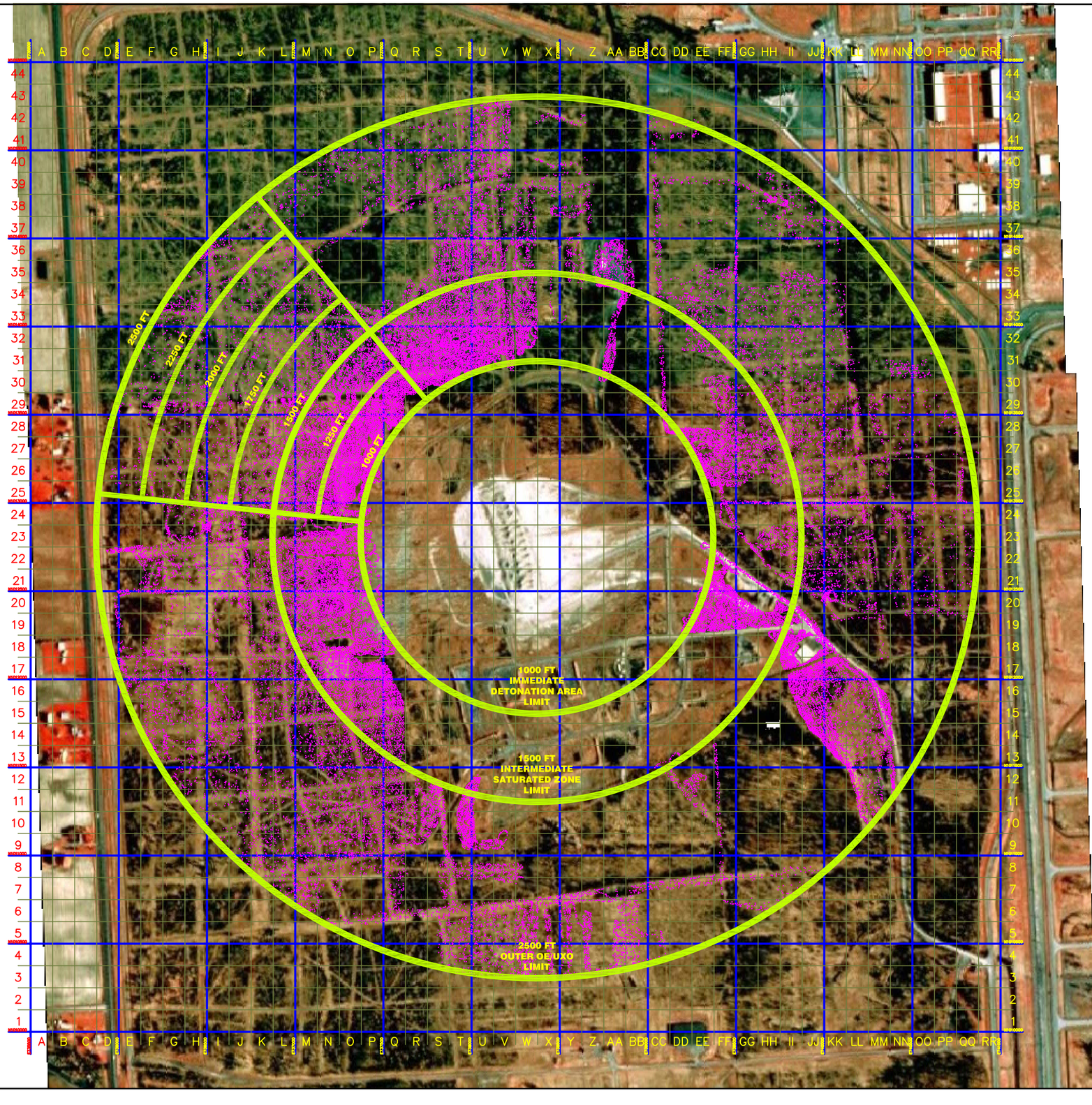
As shown in Figure 2-3, due to the high density of targets found outside the 1,000-ft radius, the area of the ODG that is considered saturated with MEC and munitions debris has been extended by USACE to a radial limit of 1,500 ft. Of the 380 total acres that required geophysical mapping within the ODG, it is estimated that a total of 153 acres of wooded and/or inaccessible areas remain that may require mapping or further investigative work.

To verify functionality and accuracy of the geophysical survey activities, Parsons performed data reacquisition using a single-coil EM-61 MK2 system in the wheel configuration (refer to Appendix E for procedures and results). In addition, WESTON and EOTI UXO technicians excavated a total of 1,248 of the target anomaly locations identified in the geophysical data (736 items within transects and 512 items within non-wooded/open areas). Of the 512 anomaly items reacquired from open areas during Phase I, approximately 97% were located at a maximum depth of 12 inches bgs. No items were excavated from a depth exceeding 20 inches bgs. A total of 14 target locations from non-wooded/open areas resulted in no contact, yielding a 97.3% detection rate for reacquired target locations. A summary of the dig results is presented in Table 2-3. Target reacquisition procedures, detailed results, ammunition consumption reports (ACRs), and daily inspection reports are included in Appendix F.

Table 2-3
Items Excavated During Phase I

Type	Transects	Open Areas	[1]Response (mV)
MEC	3	46	19.6 – 785.84
non-MEC	549	205	10.83 – 6403.79
Munitions Debris	184	247	15.31 – 2308.14
No Contact	0	14	14.92 – 116.82
Total:	**736**	**512**	**10.83 – 6403.79**

1. Response applies to open area anomalies only.
MEC = munitions and explosives of concern
mV = millivolts



LEGEND

GEOPHYSICAL SURVEY
ANOMALY LOCATIONS

GRAPHIC SCALE

500 250 0 250 500

APPROXIMATE SCALE IN FEET

WESTON SOLUTIONS
MANCHESTER NEW HAMPSHIRE

DEPARTMENT OF THE ARMY
OMAHA DISTRICT
CORPS OF ENGINEERS
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TIME SENSITIVE GEOPHYSICAL INVESTIGATION
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK

OPEN DETONATION GROUNDS
TARGET ANOMALY DISTRIBUTION

DRAWN	DATE	FIGURE NO.
BEG	SEPT 2003	2-3
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M:\Design\DWG\ACOE\SENECA\OD GROUNDS\Phase I Report\Draft\FIG 2-3.dwg, FIG 2-3, 3/2/2005 12:37:48 PM, girardeb, 1:1

2.5 QUALITY CONTROL/QUALITY ASSURANCE

In accordance with USACE's *Final SOW* (25 March 2003) and Modifications No. 0002 (June 2003) and No. 0003 (July 2003), QA/QC measures for this project included the following:

- Pre- and post-survey instrument function checks
- WESTON QC seed items
- USACE QA seed items
- Anomaly reacquisition for QA
- Target reacquisition

2.5.1 Quality Control

To verify instrument accuracy, Parsons performed daily pre- and post-survey QC function tests, which included: static; static spike; cable shake; and a three-point navigational test (Photo 5, Appendix A). When equipment failures, system repairs, or questionable results occurred during or between these tests, additional function checks were performed as necessary to quantify the identified failure. Parsons Engineering provided the results of each QC function test to WESTON as part of the daily field data submittal. A detailed description of each QC test is provided in Appendix D.

To verify navigational precision and data quality, WESTON seeded 41 QC items at a frequency of one item per 5-acre area. The QC items were known ferrous items placed securely on the ground surface and the position, type, and orientation of each QC seed item was recorded by WESTON. Prior to submittal to USACE, Parsons' data was reviewed by WESTON to confirm that the QC targets had been accurately detected by the EM-61 MK2 towed-array. A QC failure resulted if a QC seed item was not detected in a given dataset. The distribution of QC seed items is shown in Figure 2-2 and a complete summary of these items is presented in Table D-1 (Appendix D).

Upon acceptance of the data, WESTON developed a QC Summary Report that was uploaded to the *Teamlink* website for USACE's review. Raw and processed data packages were also submitted to USACE on a daily basis. A copy of WESTON's QC Tracking Log and a sample copy of a QC Summary Report are included in Appendix D. Following approval of all data

package submittals, WESTON submitted final QC Summary Reports to USACE on 21 April 2004.

2.5.2 Quality Assurance

As part of USACE's QA program, 48 known ferrous items were seeded below the ground surface "blind" to WESTON and geophysical subcontractor (Parsons). In a combined effort, USACE and WESTON seeded these items using either a mini-excavator (Photo 6, Appendix A) or by hand. The position, type, depth, and orientation of each QA seed item were recorded prior to burying the item. Approximately one QA item was seeded per 5-acre area. The distribution of QA seed items is shown in Figure 2-2 and a complete summary of these items is presented in Table D-2 (Appendix D).

The QA process mandated by USACE also required that data quality be verified by reacquiring 367 target locations in the field using a hand-pulled, single coil EM-61 MK2. The locations of selected targets were provided by USACE following review of the geophysical data previously collected using the EM-61 MK2 towed-array. Of the 367 target anomaly locations that were reacquired using the single coil EM-61 MK2, a total of 96 locations returned false positive results. Data reacquisition procedures and results are presented in detail in Appendix E.

To further verify functionality and accuracy of the geophysical data collected during Phase I, WESTON mobilized five UXO teams to excavate target locations in both open/non-wooded and transect areas pursuant to Modifications No. 0002 (June 2003) and No. 0003 (July 2003) to the *Final SOW* (USACE, 25 March 2003). From Parsons' geophysical data, USACE provided WESTON with specific target locations to reacquire, dig, identify, and remove anomaly targets. In addition to confirming select anomaly targets from the geophysical data, acquisition information including type, depth, and location were used for developing a level of effort and cost estimate for future Phase II MEC removal and disposal. During the course of anomaly reacquisition, WESTON and EOTI UXO Technicians investigated a total of 736 anomalies within wooded areas (transect locations), and a total of 512 anomalies within non-wooded/open areas. Target reacquisition procedures, dig results, ACRs, and daily inspection reports are included in Appendix F.

2.5.3 Quality Control/Quality Assurance Failures

Upon review of the geophysical investigation data using the QA/QC procedures described in Subsection 2.4.1 and 2.4.2, WESTON identified a total of five QC failures and nine QA failures. The most common failures were a result of the following:

- Latency corrections requiring refinement.
- Signal-to-noise ratio in excess of the 2.0 standard deviations.
- Failure to select the QC seed item within the 2.0 ft metric.
- Failure to select the blind QA seed item within the 2.0 ft metric.
- Failure to reacquire selected anomalies within the 2.0 ft metric.

The failures listed above were investigated through a comprehensive root-cause analysis conducted by WESTON (refer to Appendix B). Following USACE's acceptance of these root-cause analyses, each failure was corrected by WESTON and or Parsons, and the dataset was resubmitted.

2.6 DEMOBILIZATION

Following completion of the geophysical investigation and related activities on 27 August 2003, all equipment, temporary structures, and other items utilized during fieldwork were removed from the project site.

SECTION 3

CONCLUSIONS AND RECOMMENDATIONS

3. CONCLUSIONS AND RECOMMENDATIONS

An EM-61 MK2 towed-array system was used to collect digital geophysical mapping data for locating subsurface anomalies in all accessible areas (213 acres) between the 1,000-ft and 2,500-ft radial limits of the ODG. A manual "mag & flag" approach using hand-held magnetometers was used to locate subsurface anomalies in wooded/transect areas (9.65 acres). Results of the digital and manual geophysical surveys indicate that approximately 599 targets per acre exist between 1,000 ft and 1,500 ft of the ODG Center, and approximately 139 targets per acre exist between 1,500 ft and 2,500 ft of the ODG Center. These results confirm that the density of MEC and munitions debris within the ODG decreases further away from the ODG Center, as previously suggested in the *EE/CA* (Parsons, 2001). Due to the high-density of targets found outside the initial 1,000-ft inner radius, the area of the ODG that is considered saturated with MEC and munitions debris has been extended to a radial limit of 1,500 ft from the ODG Center.

To verify the accuracy of results obtained both digitally and manually, WESTON and EOTI UXO Technicians investigated and removed a total of 512 items from anomaly target locations within non-wooded/open areas and a total of 736 items from anomaly target locations within transects. Dig results within the open areas of the ODG revealed that approximately 97% of the excavated items were found at a maximum depth of 12 inches bgs. No items were excavated from a depth exceeding 20 inches bgs.

Future remedial actions at the site shall include Phase II MEC removal and disposal between 1,500 ft and 2,500 ft of the ODG Center, followed by Phase III MEC removal and disposal between the ODG Center and 1,500 ft. An estimated cost of $126 per target has been projected for completion of Phase II activities. This estimate is based on the 1,248 anomalies reacquired during Phase I (736 items from transects and 512 items from non-wooded/open areas). A baseline cost estimate and financial breakdown for Phase II activities is included in Table G-1 (Appendix G). An estimate for level of effort and cost associated with Phase III activities will be developed based on results obtained following completion of Phase II. The potentially significant

concentration of MEC and munitions debris within the 1,500-ft inner radius will likely make it impractical to remove these items manually.

SECTION 4

SUMMARY

4. SUMMARY

The Phase I Geophysical Investigation of the ODG was conducted between 2 June and 27 August 2003. WESTON performed this work for USACE under Rapid Response Contract No. DACA-45-98-D-0004, TO No. 0037.

Prior to initiating the full-scale geophysical investigation, GPO surveys were conducted to demonstrate equipment capabilities, a site-wide MEC and munitions debris sweep was conducted to remove surface anomalies, and vegetation was cleared to facilitate data collection.

An EM-61 MK2 towed-array system was selected to perform the geophysical survey in all accessible areas between 1,000 ft and 2,500 ft of the ODG Center (213 acres), and the "mag & flag" approach using hand-held magnetometers was used in wooded/transect areas (9.65 acres). Results of the geophysical survey revealed that approximately 599 targets per acre exist in non-wooded areas between 1,000 ft and 1,500 ft of the ODG Center, approximately 139 targets per acre exist in non-wooded areas between 1,500 ft and 2,500 ft of the ODG Center, and approximately 208 targets per acre exist in wooded (transect) areas.

To verify the accuracy of results obtained both digitally and manually, WESTON and EOTI UXO Technicians removed a total of 512 items from anomaly target locations within the non-wooded/open areas, and a total of 736 items from anomaly target locations within the transects. Of the 512 target anomalies excavated from the non-wooded/open areas, approximately 97% of the items were found at a maximum depth of 12 inches bgs. No items were excavated from a depth exceeding 20 inches bgs. Fourteen of the target anomaly locations resulted in no contact, yielding a 97.3 % detection rate for the EM-61 MK2 towed-array system.

Using results obtained during Phase I, WESTON has estimated a cost of $126 per target for Phase II MEC removal and disposal between the 1,500-ft and 2,500-ft radial limits of the ODG. This unit cost will invariably increase or decrease based on the location of the target relative to the ODG center, vegetation conditions (i.e., wooded or non-wooded areas), and depth of the target. Phase II activities began in September 2003, and are currently ongoing.

SECTION 5

REFERENCES

5. REFERENCES

Parsons Engineering. *Engineering Evaluation/Cost Analysis*, September 2001.

U.S. Army Engineering and Support Center, Huntsville, Alabama. *Site Specific Project Report, USACE DID OE-030.01,* revised 2001.

U.S. Army Engineering and Support Center, Huntsville, Alabama. *Geophysical Investigation Plan, USACE DID OE-005.05.01,* revised 2001.

U.S Army Corps of Engineers. *Final Scope of Work for Rapid Response Action,* 25 March 2003.

U.S Army Corps of Engineers. *Modification No. 0002 to Final Scope of Work for Rapid Response Action*, June 2003.

U.S Army Corps of Engineers. *Modification No. 0003 to Final Scope of Work for Rapid Response Action*, July 2003.

Weston Solutions, Inc. *Final Work Plan,* July 2003.

APPENDIX A

PHOTOS

Photo No. 1: EM61-MK2 Towed-Array System (July 2003)

Photo No. 2: EM61-MK2 Towed-Array System (July 2003)

Photo No. 3: Transect No. 168

Photo No. 4: RTK Setup

Photo No. 5: Three-point QC Function Test Track at West GPO (July 2003)

Photo No. 6: Placing USACE QA Seed Items Using a Mini-excavator

Photo No. 7: Anomaly reacquisition using a *Schonstedt* GA-52CXS ferrous metal locator and a miniature open front barricade (MOFB)

Photo No. 8: Anomaly reacquisition

APPENDIX B

DATA QUALITY OBJECTIVES

APPENDIX B – DATA QUALITY OBJECTIVES

Data quality objectives were developed during the project planning phase to serve as standards against which achievement of the project objectives could be measured. The DQOs are both qualitative and quantitative statements specifying the quality of data required to meet the intended goals of the project. Throughout implementation of both the GPO and full-scale geophysical investigation activities, USACE required that the following DQOs be met:

- **Electromagnetic (EM) leveling:** For any given dataset of EM data, all data channels will be leveled using the same routines and parameters.
- **Processing:** All leveling and/or filtering routines that are applied to datasets will be evaluated, on a dataset by dataset basis, to confirm that those routines do not alter the nature of the original measured response.
- **Navigation:** The sum of all data positioning errors in the final datasets will not exceed +/- 1.0 ft.
- **Background Noise**: Mean of the Sum Channel must be less than or equal to 3.25 mV with a standard deviation less than or equal to 2 mV. “Clip” anything that is well above the background noise being careful not to clip too low. Document the clipping value and what passes/fails.
- **Mean Speed:** Maintain mean speed less than or equal to 2.5 miles per hour. Document mean speed with standard deviation.
- **Along Track Sampling:** Less than or equal to 0.5 ft.
- **Across Track Sampling:**Lless than or equal to 3.0 ft.
- **Latency Correction:** No visible chevron effects in the data or plots.
- **Data Leveling:** Use consistent parameters and processing methods for all datasets.
- **Signal Above Background:** Processing not to alter signal above background by more than 5% or 5mV, whichever is less (i.e., the difference between background and peak response).
- **Anomaly Selection:** Verify that anomaly selections are reasonable for identifying all buried metal from 20 mm at 6 inches to 105 mm or larger at 48 inches.
- **Positioning Errors:** Positioning errors are not to exceed 1.0 ft.

- **Reacquisition:** USACE will notify WESTON/Parsons of which anomalies will be reacquired, and reacquisition must be within 2 ft of the interpreted location.
- **Blind/Seeded QA Items:** All blind/seeded items must be detected to within 2 ft.

The objective of the geophysical investigation was to accurately locate and record the location of potential MEC and munitions debris. For datasets that failed to meet the DQO criteria described above, WESTON performed a root-cause analysis of each failure and recommended appropriate corrective actions per USACE request. Following review of Parsons' data, the most common data failures were a result of one or more of the following:

- Failure to reacquire selected anomalies within the 2.0 ft metric.
- Failure to select the WESTON QC seed item within the 2.0 ft metric.
- Failure to select the blind USACE QA seed item within the 2.0 ft metric.
- Latency corrections require refinement.
- Signal-to-Noise ratio standard deviations in excess of the 2.0 mV metric.

A list of the root-cause analyses performed during the full-scale geophysical survey is presented in Table B-1.

Table B-1
List of Root-Cause Analyses

Date	Problem Addressed
9/8/2003	DQO failures for signal to noise ratio standard deviation of 6/17 dataset
9/8/2003	DQO failure and alteration of response values by > 5%
9/8/2003	DQO failure for signal to noise ratio standard deviation of 7/18 dataset
9/12/2003	Noise related target picks within the 7/16 dataset
9/18/2003	Noise DQO metric for 8/19 and 8/20 datasets
9/23/2003	Determine extent of noise related target picks
9/30/2003	Target reacquisition failures
10/1/2003	Geophysical comparison of the Dig Team results (7/11-9/22)
--	Analysis of QC /QA seed item failures

DQO = data quality objectives

APPENDIX C

DATA PROCESSING, TARGET SELECTION AND DECISION CRITERIA

APPENDIX C – DATA PROCESSING, TARGET SELECTION AND DECISION CRITERIA

Following the initial pre-processing steps, all geophysical data was imported into an Oasis Montaj (Geosoft™) database. Associated line profiles and maps were generated and anomaly selections were made based on the following post-processing procedure:

1. The data was leveled using the Geosoft UX-Detect Drift Correction GX, (script). The same GX parameters were used on all 4 channels of data (Time Gates 1 through 4).

2. A new channel was then created based on the sum of all 4-leveled channels.

3. A pseudo-color grid was generated for the sum channel using the gridding parameters established in the *Final Work Plan* (WESTON, July 2003). The grid was refined to minimize gridding artifacts such as over-shoot in high gradient areas. A symbols layer, showing location of all data points was generated to allow a Data Link with the shadow cursor.

4. A statistical report of background data for the sum channel was created to establish an upper background threshold for the auto picking routine. Based on the level of noise observed, this upper threshold was set between 2 mV and 5 mV above the highest background noise level observed. Once the background threshold was set, all data above this threshold was temporarily removed, and the automatic anomaly selection was performed on the remaining data.

5. The automatic anomaly selection was performed on the sum channel using the UX-Detect Blakely Test. As a starting point, the GX (threshold) Parameter was set to produce anomaly selections of signals above the mean plus 2.5 to 3 times the standard deviation of the background data.

6. Using the Shadow Cursor with Data Link, a visual review of anomaly picks and decay profile characteristics for suspect and/or low-amplitude anomalies was performed.

7. Using the merge GX (a simple search radius approach to find the peak response near each anomaly), anomaly selections were adjusted and/or merged where multiple targets were picked by the auto-routine.

8. Anomaly locations and all corrected geophysics data were exported to a database and a query of the database was performed to identify the peak response (in the sum channel) nearest to each selected anomaly location.

9. Prior to finalizing the target database, the anomaly selections in each dataset were refined as follows:

    a. Duplicate targets on the same anomaly were deleted.

    b. Targets deleted by the GX on anomalies where only one pick had been made were replaced.

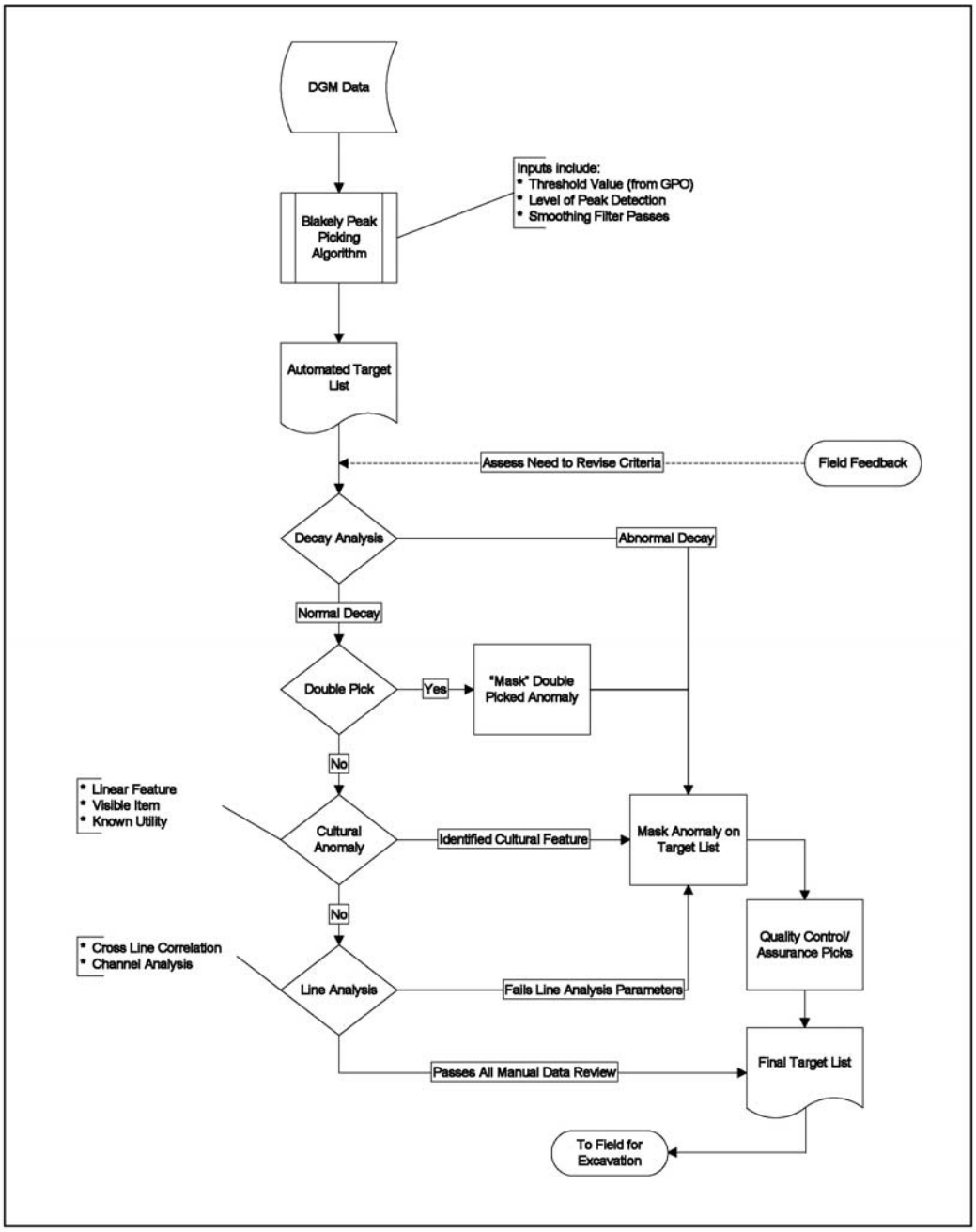
    c. A decay GX was run to examine decay characteristics typical of buried metals. (*Note*: The decay GX did not take into account Channel 1, as the inclusion of Channel 1 deleted a pick over an item in the GPO). After running the decay GX, Parsons' geophysicist examined each target eliminated by the decay GX and replaced those that might be actual targets (i.e., very close to passing the decay test and exhibiting large amplitude).

    d. In some cases, especially in early data sets, where multiple picks were made by the auto-picking routine, duplicate picks that were separated by more than 3 ft for the same anomaly were hand deleted.

    e. Generally, Parsons' geophysicist emphasized eliminating lower amplitude targets from the anomaly picks, and tried to leave a reasonable distance between them, so the metric would not be exceeded. In the case of large anomalies that have (or had) 4 or 5 picks on them it is reasonable to expect that reacquisition of any of the picks on these anomalies would result in the detection of the item. For example, looking for a 15 mV target picked on the edge of a 150 mV anomaly where the actual peak was 3.5 ft from the 15 mV pick would still almost certainly result in the detection of the peak in almost the same time. While the metric is exceeded, the overall goal is still achieved with little additional effort.

The target selection and review process for determining anomaly IDs is shown in Figure C-1.

Figure C-1
Target Selection and Review Flow Chart



APPENDIX D

QUALITY CONTROL

APPENDIX D – QUALITY CONTROL

Instrument Function Tests

To verify instrument accuracy, daily pre- and post-survey instrument function checks were conducted, which included: static; static spike; cable shake; and a three-point navigational test. When equipment failures, system repairs, or questionable results occurred during or between these tests, additional function checks and/or root-cause analyses were performed as necessary to quantify the identified failure.

Static Test

The purpose of the static test was to determine the ability of the EM-61 MK2 instrumentation to collect stable readings consistently throughout the geophysical survey. Instrument functionality and EM ambient cultural noise can lead to unstable, non-repeatable readings. If noise levels exceeded a standard deviation of 2.0 during the static test, an analysis was performed to determine the cause of increased noise levels.

Static Spike Test

The static spike test demonstrates the sensor's sensitivity to the target object. An 8-inch piece of rebar was chosen to quantify the instrument response and document its ability to collect stable readings. Where levels exceed a standard deviation of 2.0, an analysis was performed to determine the cause of increased noise levels.

Cable Shake Test

The cable shake test was used to identify mechanical problems with the EM-61 MK2 instrumentation. Large anomalous spikes within the test data would indicate poor connectivity between cables and the field data logger. Such spikes were not observed during the cable connection tests confirming good connection between cables and the field logger.

Three-Point Navigation Check

To confirm the precision of the navigational system and determine temporal time lags inherent to these specific instruments, a three-point navigation check was performed daily as part of the pre- and post-survey instrument function tests. Time delays of 0.2- to 0.8-seconds were often observed and applied to the survey data. This data was submitted to WESTON on a daily basis for comparison to the DQO objectives.

QC REPORTING FORMS

The following forms are an example of the QC forms used by WESTON to review the geophysical data submitted by Parsons.

QC Form 1 - Static Test

Coil #1

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L0:0				L20:0			
Min:	-126.67	-21.04	-4.92	-6.1	-111.51	-20.74	-6.41	-7.25
Max:	-123.55	-19.68	-4.22	-5.62	-108.46	-19.38	-5.57	-6.7
Mean:	-125.35	-20.43	-4.58	-5.84	-109.93	-20.02	-5.99	-6.97
Std:	0.5	0.17	0.09	0.07	0.44	0.17	0.11	0.09

Comments: _____

Coil #2

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L0.1:0				L20.1:0			
Min:	-149.91	-33.75	-10.24	-8.25	-140.92	-35.35	-12.17	-11.04
Max:	-146.92	-32.63	-9.42	-7.64	-138.64	-34.22	-11.2	-10.28
Mean:	-148.31	-33.21	-9.83	-7.94	-139.81	-34.82	-11.69	-10.69
Std:	0.45	0.17	0.12	0.1	0.35	0.19	0.15	0.12

Comments: _____

Coil #3

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L0.2:0				L20.2:0			
Min:	-126.01	-34.75	-12.59	-8.77	-122.12	-37.86	-14.3	-9.52
Max:	-123.51	-33.48	-11.88	-8.28	-119.86	-36.53	-13.66	-9.08
Mean:	-124.77	-34.11	-12.22	-8.46	-121.18	-37.17	-13.99	-9.28
Std:	0.34	0.2	0.11	0.08	0.34	0.17	0.1	0.08

Comments: _____

QC Form 2 - Static Spike Test

Coil #1

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L1:0				L21:0			
Min:	348.54	269.24	146.83	55.12	376.38	281.8	155.14	59.64
Max:	352.49	272.24	148.42	55.82	380.78	285.04	156.98	60.5
Mean:	350.4	270.7	147.65	55.48	378.8	283.72	156.21	60.08
Std:	0.9	0.68	0.37	0.15	0.83	0.63	0.36	0.15

Comments: _____

Coil #2 **Coil #2**

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L2.1:0				L22.1:0			
Min:	347.73	273.27	151.52	56.14	345.99	269.26	150.93	54.88
Max:	351.42	275.68	153.18	56.95	349.7	271.69	152.5	55.9
Mean:	349.91	274.59	152.48	56.49	347.96	270.56	151.83	55.42
Std:	0.68	0.5	0.29	0.14	0.6	0.45	0.29	0.21

Comments: _____

Coil #3 **Coil #3**

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L3.2:0				L23.2:0			
Min:	330.06	247.47	134.18	50.39	367.05	271.49	150.86	59.17
Max:	333.42	249.33	135.28	50.89	369.59	273.42	152.01	59.83
Mean:	332.03	248.64	134.85	50.64	368.28	272.41	151.43	59.48
Std:	0.57	0.39	0.2	0.09	0.61	0.44	0.25	0.12

Comments: _____

QC Form 3 - Cable Shake Test

Coil #1

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L4:0				L24:0			
Min:	-125.04	-20.86	-5.19	-6.26	-111.59	-20.94	-6.41	-7.25
Max:	-121.83	-19.52	-4.07	-5.21	-109.57	-19.86	-5.85	-6.52
Mean:	-123.77	-20.15	-4.51	-5.82	-110.54	-20.29	-6.08	-6.96
Std:	0.56	0.25	0.2	0.16	0.41	0.2	0.1	0.11

Comments: _____

Coil #2 **Coil #2**

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L4.1:0				L24.1:0			
Min:	-147.63	-33.58	-10.54	-8.45	-142.39	-35.68	-12.08	-11.4
Max:	-144.9	-32.44	-9.55	-7.6	-139.49	-34.3	-11.14	-10.32
Mean:	-146.4	-33	-10.04	-8.05	-140.89	-35.11	-11.6	-10.68
Std:	0.56	0.23	0.19	0.18	0.49	0.23	0.17	0.16

Comments: _____

Coil #3 **Coil #3**

	Pre Survey				Post Survey			
	CH 1	CH 2	CH3	CH4	CH 1	CH 2	CH3	CH4
File Name	0728.gdb				0728.gdb			
Line #:	L4.2:0				L24.2:0			
Min:	-126.81	-35.53	-12.93	-8.89	-123.98	-38.44	-14.4	-9.65
Max:	-124.02	-34.27	-12.05	-8.19	-122.06	-37.48	-13.85	-9
Mean:	-125.47	-34.82	-12.48	-8.5	-123.24	-37.98	-14.12	-9.31
Std:	0.5	0.22	0.14	0.12	0.29	0.15	0.09	0.09

Comments: _____

QC Form 4

QC Check by: MDS
Date: 8/20/03

Project: SEDA/ODG
Location i.d.: J20-24; I19-22; H19-21; G18-19; F18; E18
Survey Date: 7/28/03
File name: 0728.gdb

3 pt Bi-Directional Navigation Test

	Pre Survey		Post Survey	
	0728AM_Latency		0728PM_Latency	
	Latency Correction	**Distance Offset (ft)**	**Latency Correction**	**Distance Offset (ft)**
Coil #1	0.5	1.44	0.5	0.37
Coil #2	0.5	1.36	0.5	0.41
Coil #3	0.5	1.67	0.4	0.45

Comments:

Blind Seeds Detected

Seed ID	
No Weston Seeded Items	
Location	
Easting	NA
Northing	NA
Seed Description	
Depth (ft)	NA
Orientation	NA

Anomaly ID	
NA	
Detected?	NA
Location	
Easting	NA
Northing	NA
Dist. & Orient. from Seed	
Dist. (ft)	NA
Orientation	NA

Comments:

Data Sampling

Velocity	
Average (mph)	1.88
Along Track / Across Track Sampling	
***Along Track (ft)**	0.22
****Across Track (ft)**	NA
Total Area Surveyed (acres)	
This Data Set	3.72
Cumulative	201.93
Total Data Gaps (acres)	
This Data Set	0.001
Cumulative	0.118

* metric: </= 0.5 ft
** metric: </= 3.0 ft

Comments:

QC Form 5 - Processing QC

This data has been reviewed for the following functions:

Processing Functions:

File Name:	0728.gdb	
Leveling Performed:	Yes	
Latency Correction Performed:	Yes	(no visible chevron effects)
Audit Log File Name:	0728.rtf	
Anomaly Selection Verified on:	100.0%	% of data set

SNR:

Channel Analyzed:	sum_clipped & Weston_Noise	
Clipping Value:	- 5/7	
Text Files Attached:	Yes	

Mean / Std.Dev.:

	Mean (mV)	**Std.Dev. (mV)**
a.m.	1.69	1.89
p.m.	1.82	1.94
Metric:	</= 3.25	</= 2.0

Drift:

% Lowest:	10
% Highest:	70
Max Value per Block:	200

Verification of Anomalies:

3	Anomalies <	100
3	Anomalies >	100

(Metrics - not altered by 5% / 5mV of) 0 Anomalies)

Certification that anomaly selections are reasonable: Target ID's >100 = 141, 543, 321
Target ID's < 100 = 100, 6, 369

Comments:

QC TRACKING LOG

	ACRES MAPPED		RAW DATA		PROCESSED DATA						
125'x125' Grids Mapped	Date Mapped	per Parsons	[1]File Name (.gdb)	Received from Parsons	Received from Parsons	WESTON QC Completed	Pass / Fail	Draft Submitted to USACE	Final Submitted to USACE	QC Summary Uploaded to Teamlink	Comments
WGPO	6-Jun		0606	7-Jun	10-Jun	10-Jun	P	11-Jun	10-Oct	23-Jun	Processed data was rejected by USACE.
					20-Jun	24-Jun	P	23-Jun			Initial dataset failed due to target picking parameters. USACE provided suggestions and the data was reprocesssed and submitted.
N-P 25-32	7-Jun	5.6	0607	9-Jun							Across line spacing exceeded DQOs. Parsons to recollect data. Data was recollected on June 11 and 12.
M24-32, M-P 21, M-O 24	9-Jun	7.15	0609	10-Jun	24-Jun	24-Jun	P	25-Jun	9-Sep	26-Jun	
M20-P20, M23-O23, M-P 17-19	10-Jun	6.5	0610	11-Jun	24-Jun	25-Jun	P	25-Jun	9-Sep	8-Jul	
Q-S 32, *P25-32	11-Jun	1.27	0611	12-Jun	24-Jun	25-Jun	P	25-Jun	2-Oct	8-Jul	* Part of failed data reacquired from 7-Jun.
*N-O 25-32, N-O 25-32, Q29, Q-T 30-31, T32	12-Jun	3.42	0612	12-Jun	24-Jun	25-Jun	P	25-Jun	9-Sep	12-Jul	*Part of failed data reacquired from 7-Jun.
Q-R 33, R34, T-V 33-36	13-Jun	4.7	0613	14-Jun	25-Jun	9-Jul	P	9-Jul	9-Sep	12-Jul	
Q33, R-S 33-34, U-V 33-36	14-Jun	4.2	0614	16-Jun	26-Jun	12-Jul	P	12-Jul	9-Sep	12-Jul	
W33-W36	16-Jun	1.91	0616	17-Jun	28-Jun	11-Jul	P	11-Jul	9-Sep	11-Jul	
R-T 38-40, S-T 37-38	17-Jun	4.6	0617	18-Jun	28-Jun	11-Jul	P	11-Jul	9-Sep	11-Jul	
K-L 25-32	18-Jun	6.6	0618	19-Jun	23-Jun	25-Jun	P	26-Jun	9-Sep	4-Jul	
J25-32	19-Jun	3.25	0619	20-Jun	23-Jun	25-Jun	P	26-Jun	9-Sep	4-Jul	
H24-35	20-Jun	4.7	0620	23-Jun	24-Jun	25-Jun	P	26-Jun	9-Sep	4-Jul	
E21, E25, E29, E33	23-Jun	1.3	0623	25-Jun	24-Jun	12-Jul	P	12-Jul	9-Sep	12-Jul	No grids completed in full
I 24-32	24-Jun	2.17	0624	25-Jun	25-Jun	12-Jul	P	12-Jul	9-Sep	15-Jul	
E25-31, F25-33, G23-34	25-Jun	6.93	0625	26-Jun	26-Jun	12-Jul	P	14-Jul	9-Sep	15-Jul	
A17-28, J33-37, K33-38	26-Jun	8.67	0626	28-Jun	28-Jun	14-Jul	P	14-Jul	9-Sep	16-Jul	
L33-39, M33-38, N33-36, O-Q 33-34, P8-16	27-Jun	8.61	0627	28-Jun	28-Jun	16-Jul	P	16-Jul	9-Sep	17-Jul	
M-O 7-16	28-Jun	9.29	0628	30-Jun	30-Jun	15-Jul	P	12-Nov			Parsons to reprocess data; proper latency not applied to specific lines. Data reprocessed and sent to USACE on 11/12/03
			0804a	11-Aug	11-Aug	14-Aug	P				West edge of 06/28 data recollected as part of 0804a. Still some data of the 06/28 failed DQO so data was modified by applying a polygon mask to that noisy area and sending data to dig teams to manually mag and flag.

	ACRES MAPPED		RAW DATA		PROCESSED DATA						
125'x125' Grids Mapped	Date Mapped	per Parsons	[1]File Name (.gdb)	Received from Parsons	Received from Parsons	WESTON QC Completed	Pass / Fail	Draft Submitted to USACE	Final Submitted to USACE	QC Summary Uploaded to Teamlink	Comments
K7-14, L7-23	30-Jun	8.98	0630	3-Jul	3-Jul	17-Jul	P	17-Jul	9-Sep	17-Jul	
E15-18, F13-18, K15-23	1-Jul	5.83	0701	3-Jul	3-Jul	17-Jul	P	17-Jul	2-Oct	22-Jul	
G13-18, H14-18, I13-18, J14-15	2-Jul	4.69	0702	7-Jul	8-Jul	18-Jul	P	18-Jul	2-Oct	22-Jul	
G12, H11-13, I10-12, J8-12, N P 5-6, Q-AA 6, W-GG 7, EE-GG 8	3-Jul	6.03	0703	7-Jul	7-Jul	18-Jul	P	18-Jul	9-Sep	22-Jul	
*Q6-16, S14-16, T14-16, U13-15, V10-13, II-KK8	7-Jul	5.37	0707	8-Jul	8-Jul	21-Jul	P	21-Jul	2-Oct	22-Jul	
S3-8, U3-8, T3-T8, V3-V8, W7-8, W-Z3, Y4-6	8-Jul	6.38	0708	9-Jul	9-Jul	21-Jul	P	21-Jul	9-Sep	23-Jul	
II15-16; JJ14-16; KK13-16;LL10-16; MM10-17; NN11-15	9-Jul	7.35	0709	10-Jul	10-Jul	22-Jul	P	22-Jul	9-Sep	23-Jul	
CC12-13; DD11-13; EE10-12; FF9-13; EE19-22; FF19-22; GG19-22; HH18-21; II17-20; JJ17-20; KK17-18; MM21-24; NN19-24	10-Jul	5.85	0710	11-Jul	11-Jul	22-Jul	P	22-Jul	2-Oct	15-Aug	*Proper latency not applied to specific lines; however, upon discussion with USACE the data is acceptable.
KK-LL19; NN19-24; OO19-26; PP19-27; QQ19-27	11-Jul	7.7	0711	12-Jul	12-Jul	23-Jul	P	23-Jul	2-Oct	24-Jul	
HH23; II23-24; KK24; KK33-34; LL24; LL28-34; MM18-31; NN25-31; OO27-31; PP28-31	12-Jul	6.44	0712	15-Jul	15-Jul	23-Jul	F	23-Jul	2-Oct	31-Jul	Identified noise in 0712a and latency errors in 0712b. Parsons to refine latency error and resubmit data.
					25-Jul	29-Jul	P	29-Jul			
JJ24; EE-LL25; FF-LL26; HH-LL27	14-Jul	5.41	0714	15-Jul	15-Jul	24-Jul	F		2-Oct	15-Aug	Parsons to investigate anomalous reading leading to possible QC failures in 0714a and 0714b.
			0714 & 0804b	11-Aug	11-Aug	14-Aug	p	15-Aug			Portion recollected as part of 0804b.
DD-GG27; DD-LL28; EE-FF29; EE-FF30	15-Jul	3.78	0715	16-Jul	16-Jul	24-Jul	p	24-Jul	2-Oct	25-Jul	
GG-LL29; GG-LL30; GG-LL31	16-Jul	6.11	0716	17-Jul	17-Jul	25-Jul	P	25-Jul	2-Oct	28-Jul	
DD-LL32; DD-LL33	17-Jul	4.6	0717	20-Jul	20-Jul	26-Jul	P	26-Jul	9-Sep	28-Jul	
DD-KK34; II-KK35; JJ-KK36; GG-KK37; GG-KK38; FF-JJ39; CC-EE41; BB-EE42	18-Jul	4.48	0718	20-Jul	20-Jul	6-Aug	P	11-Aug	2-Oct	11-Aug	

	ACRES MAPPED		RAW DATA		PROCESSED DATA						
125'x125' Grids Mapped	Date Mapped	per Parsons	[1]File Name (.gdb)	Received from Parsons	Received from Parsons	WESTON QC Completed	Pass / Fail	Draft Submitted to USACE	Final Submitted to USACE	QC Summary Uploaded to Teamlink	Comments
Z30-31; Z34-36; AA30-36; BB34-36; CC28-31;	19-Jul	2.74	0719	20-Jul	20-Jul	28-Jul	P	28-Jul	10-Oct	8-Aug	
WGPO			0719	23-Jul	24-Jul	29-Jul	P	29-Jul			
CC31-42; DD-GG37; DD-EE39	21-Jul	3.94	0721	23-Jul	24-Jul	pending			2-Oct		Lines 10, 11,12 and 13 Noise exceeded DQO. Lines are being recollected.
			0805	5-Aug	11-Aug	pending					Failed data needs to be removed and data package resubmitted.
			0721 & 0805		11-Aug	18-Aug	P	18-Aug		19-Aug	
LL23; II22-LL22; II-LL21	22-Jul	3.72	0722	23-Jul	24-Jul	30-Jul	F		2-Oct	1-Aug	Velocities need to be reviewed. Data will be reprocessed and resubmitted.
					31-Jul	31-Jul	P	31-Jul			
Q-U41; Q-U42; T-U43	23-Jul	3.42	0723	24-Jul	25-Jul	pending			2-Oct		Cracked coil. Parsons to reevaluate noise in data.
			0731	31-Jul	11-Aug	pending					Noise issues to be resolved.
			0723 & 0731		11-Aug	19-Aug	P	19-Aug		27-Aug	
U-W39; V37-38; W37-38	25-Jul	2.7	0725a	26-Jul	26-Jul	1-Aug	P	1-Aug	2-Oct	4-Aug	
X33-36; X38-40; Y34-37; Y38-40; Z37-40; X-Z42			0725b								
K-L24; J20-24	26-Jul	2.04	0726a	28-Jul	28-Jul	7-Aug	P	7-Aug	2-Oct	12-Aug	
WGPO			0726b								
J20-24; I19-22; H19-21; G18-19; F18; E18	28-Jul	3.72	0728	29-Jul	29-Jul	8-Aug	F		2-Oct		Latency errors. Parsons to resubmit data.
					11-Aug	20-Aug	P	20-Aug		27-Aug	Resubmitted data passed QC
I23-24; H22-23; G20-23; F21-22; E19-22; U40-43; V40-43	29-Jul	4.47	0729	1-Aug	1-Aug	5-Aug	F		2-Oct		Noise and processing errors. Parsons to resubmit data to Weston.
					11-Aug	withheld	F				Noise issues to be resolved
					11-Aug	21-Aug	P	21-Aug		27-Aug	Resubmitted data passed QC
No grids completed in full	30-Jul		0730	11-Aug	11-Aug	13-Aug	P	15-Aug	2-Oct	15-Aug	Survey acreage counted in August 1, 2003
U37-38; V37-38	1-Aug	1.13	0801	11-Aug	11-Aug	15-Aug	P	15-Aug	2-Oct	19-Aug	
W4-5; X4-5; Z4-5; GPO	19-Aug	2.17	0819	22-Aug	22-Aug		P		2-Oct		Data exceeds Noise DQO established for project and new noise limits set following 08/19 and 08/20 GPO runs (refer to Root Cause Analysis). Excessive noise is due to uneven terrain.

	ACRES MAPPED		RAW DATA		PROCESSED DATA						
125'x125' Grids Mapped	Date Mapped	per Parsons	[1]File Name (.gdb)	Received from Parsons	Received from Parsons	WESTON QC Completed	Pass / Fail	Draft Submitted to USACE	Final Submitted to USACE	QC Summary Uploaded to Teamlink	Comments
GPO	20-Aug		0820a	22-Aug	22-Aug		P		2-Oct		
R9-12; S9-12; T9-12; U9-12	20-Aug	1.55	0820b	22-Aug	22-Aug		P		2-Oct		Data exceeds Noise DQO established for project and new noise limits set following 08/19 and 08/20 GPO runs (refer to Root Cause Analysis). Excessive noise is due to uneven terrain.
EE-FF 35	21-Aug	1.52	0821	22-Aug	22-Aug		P		2-Oct		
	Total Acres	212.99									
	Average per Day	4.63									
	Total Gaps	0.147									

Notes:
1. Database contains multiple file types
* Recollected data from previous data
DQOs = data quality objectives
GPO = geophysical prove-out
QC = quality control
USACE = US Army Corps of Engineers

TABLE D-1 – WESTON QC SEED ITEMS
AND
TABLE D-2 – USACE QC SEED ITEMS

Table D-1
WESTON Quality Control Seed Items

ID	Easting	Northing	Elevation (feet)	Description	Grid ID
WESTON 1	1012671.25	737230.91	622.43	2X24 PIPE	M21
WESTON 2	1013203.88	737164.66	620.65	1.5X7.5 PIPE	M25
WESTON 3	1013659.14	737198.90	617.33	1.5X5.5 PIPE	M26
WESTON 4	1012065.87	737186.99	619.99	1.5X5.5 PIPE	M17
WESTON 5	1013850.32	737835.49	619.17	1.5X5.5 PIPE	Q29
WESTON 6	1013942.57	738113.16	617.37	1.5X5.5 PIPE	U29
WESTON 7	1014352.94	738273.68	613.92	1.5X7.5 PIPE	U33
WESTON 8	1014406.90	737931.30	617.52	1.5X7.5 PIPE	Q33
WESTON 9	1014942.38	737615.57	614.85	6X1.5 PIPE	Q37
WESTON 10	1014614.37	738070.05	614.79	5X1.25	U37
WESTON 11	1010594.12	738844.12	636.62	1.25X6 PIPE	Y5
WESTON 12	1010536.26	738209.35	636.88	1.25X5 PIPE	U5
WESTON 13	1011801.67	736833.89	615.65	1.5X7 PIPE	I13
WESTON 14	1012081.82	736751.99	612.94	1.5X7 PIPE	I17
WESTON 15	1012561.73	736570.73	608.71	1.5X7 PIPE	I21
WESTON 16	1013118.93	736772.05	611.56	1.5X7 PIPE	I25
WESTON 17	1013725.53	736714.61	607.58	1.5X7 PIPE	I29
WESTON 18	1014232.42	736866.87	605.41	1.5X7 PIPE	I33
WESTON 19	1013126.40	736340.41	603.58	7.5X1.5 PIPE	E25
WESTON 20	1014043.61	736296.47	598.39	7.5X1.5 PIPE	E29/E33
WESTON 21	1012750.86	736243.45	601.21	7.5X1.5 PIPE	E21
WESTON 23	1011384.99	736378.30	606.85	7.5X1.5 PIPE	E13
WESTON 24	1010994.19	736930.21	608.55	1.25X6 PIPE	I9
WESTON 22	1012102.78	736109.98	600.16	1.25X5 PIPE	E17
WESTON 25	1015146.39	739146.98	611.43	1.5X7 PIPE	CC41
WESTON 26	1014147.80	739278.91	617.34	1.5X7.5 PIPE	CC33
WESTON 27	1013593.30	739414.94	617.53	1.5X7 PIPE	CC29
WESTON 28	1012836.23	739765.84	618.12	1.5X6.5 PIPE	GG21
WESTON 29	1013171.56	739886.29	619.08	1.5X7 PIPE	GG25
WESTON 30	1013620.21	739766.98	620.61	1.5X7 PIPE	GG29
WESTON 31	1014082.14	739810.49	625.33	1.5X7 PIPE	GG33
WESTON 32	1014696.54	739765.73	625.65	1.5X7 PIPE	GG37
WESTON 33	1014070.16	740104.49	627.00	1.5 6.5 PIPE	KK33
WESTON 34	1013867.45	740044.29	625.31	1.5X7 PIPE	KK29
WESTON 35	1011968.45	740144.86	619.52	1.5X7 PIPE	KK13
WESTON 36	1013209.02	740074.05	622.12	1.5X7 PIPE	KK25
WESTON 37	1012649.76	740429.38	621.28	1.5X6.5 PIPE	KK21
WESTON 38	1012805.87	740754.70	624.61	1.5X5.5	OO21
WESTON 39	1013495.68	740686.71	628.14	1.5X7 PIPE	OO25
WESTON 40	1012418.68	740769.94	624.61	1.5X7 PIPE	OO17
WESTON 41	1014665.66	738101.60	613.97	1.5X7 PIPE	U37

Table D-2
US Army Corps of Engineers Quality Assurance Seed Items

Item ID	Description	Easting	Northing	Elevation
COE-EE	.5X3.5 PIPE	737104.535	1013351	619.437
COE-WW	1.25X5	737175.127	1013747	614.436
COE-UU	1.25X3.5 PIPE	737095.545	1014312	609.014
COE-QQ	1.25X4	736719.905	1014334	605.258
COE-LL	.5X3.5 PIPE	736652.782	1013688	607.06
COE-KK	1.25X5 PIPE	736688.375	1013128	609.09
COE-JJ	.5X3.5 PIPE	736624.553	1012610	610.044
COE-II	1.25X5 PIPE	736901.373	1012067	616.847
COE-HH	.5X3.5 PIPE	736682.194	1011654	612.158
COE-GG	1.25X5 PIPE	736862.805	1011188	610.766
COE-PP	75 MM	737402.601	1011811	625.96
COE-OO	75 MM	737194.094	1012271	618.716
COE-NN	105 HEAT	737153.429	1012827	620.776
COE-MM	75MM	737217.197	1011410	616.061
COE-FF	75 MM	737926.589	1010693	630.334
COE-SS	155 IN HALF	737628.579	1011453	632.145
COE-TT	STOKES MORTOR	737530.958	1011827	631.907
COE-VV	75 MM	737578.65	1013694	617.639
COE-XX	STOKES MORTOR	737968.901	1014225	614.89
COE-L	75 MM	737993.69	1014719	613.663
COE-M25	75MM	737819.926	1015018	613.03
COE AA	75MM	738637.593	1010605	635.168
COE CC	75MM	736394.8	1011404	606.519
COE BB	75MM	736354.515	1012266	602.944
COE DD	GRENADE	736589.37	1012815	607.374
COE 16	1.25X5 PIPE	736557.118	1013212	605.097
COE N	75MM	736609.721	1013773	605.185
COE D	2X17 PIPE	739129.145	1015107	608.949
COE G	2.5X24 PIPE	739263.133	1014099	612.759
COE C	2X8 PIPE	739438.723	1013594	616.046
COE H	2X17 PIPE	739800.932	1012824	615.865
COE I	2X24 PIPE	739899.334	1013196	616.519
COE J	1.5X7 PIPE	739823.722	1013625	619.342
COE P	1.5X7 PIPE	739789.329	1014097	624.055
COE R	2X17 PIPE	739800.961	1014664	622.631
COE T	2X24 PIPE	740080.009	1014094	623.636
COE U	2X24 PIPE	740050.587	1013788	620.349
COE V	1.5X7 PIPE	740134.592	1011925	618.053
COE X	2X24 PIPE	740085.277	1013256	619.289
COE Z	2X17 PIPE	740400.93	1012686	619.284
COE 01	2X17 PIPE	740761.833	1012863	621.555
COE 02	1.5X7 PIPE	740669.099	1013459	626.69
COE 03	2X17 PIPE	740815.735	1012419	622.857
COE 04	1.5X7.5 PIPE	738133.633	1014683	612.433

APPENDIX E

DATA REACQUISITION

APPENDIX E – DATA REACQUISITION

One component of the QA requirements established by USACE included reacquisition of 367 target anomaly locations. The target anomaly locations were selected by USACE from the geophysical data and entered on Dig Sheets that were given to Parsons' reacquisition team. The reacquisition process involved locating and flagging the targeted anomaly in the field using the Trimble RTK GPS. The flagged location was then resurveyed using the same type of instrumentation used for the initial geophysical survey (EM-61 MK2). The operator scanned the area using a single-coil EM-61 MK2 sensor, in the wheel configuration, to detect the maximum response (using both audible and meter output) most closely associated with the flagged anomaly location. Once detected, the reacquisition team completed the appropriate columns of the Geophysical Dig Sheets and the information was entered into a database. Target reacquisition statistics and data are shown in Tables E -1 and E-2.

Following the 30 September 2003 Root Cause Analysis of Reacquisition Failures, a first order analysis of the reacquisition survey resulted in identification of the following issues: 1) target peak response values well above the original anomaly grid value (ranging from several hundred to an order of magnitude above grid values); 2) numerous false positive responses in the low millivolts range; and 3) isolated false positive responses on targets where the grid value for each target was well above background noise level (grid values ranging from 40+ to 2000+ mV). Response values for several reacquired anomalies show differences of up to three times the original target grid value. Based on a comparison of the data, it was determined that these differences can be attributed to incompatible data acquisition and processing techniques inherent to "dynamic" surveying and "static" reacquisition methods. The *Geosoft* drift correction routine was not applied as there was generally an insufficient number of data points that were part of a peak to determine a baseline value (reference: e-mail from Parsons, 16 September 2003). Dynamic versus static data acquisition has a direct effect on anomaly response.

Following the Root Cause Analysis dated 1 October 2003, it was recommended that targets exhibiting millivolt responses less than 13.0 mV should be deselected from the final target

database. As seen in Table C-1, there are 56 reacquired targets less than 13.0 mV that were false positives in the reacquired data, yielding 40 remaining targets greater than 13.0 mV as false positives. This is equivalent to 10.9% False Positive and an 89.1% detection rate. It is also evident from the dig results presented in Appendix F that anomalies reacquired at less than 13.0 mV have much lower detection probabilities. The results of the reacquisition data support the recommendation of a lower detection rate for targets below 13.0 mV.

TABLE E-1 – DATA REACQUISITION SUMMARY STATISTICS
AND
TABLE E-2 – DATA REACQUISITION RESULTS

Table E-1
Data Reacquisition Statistics

Category	Number of Targets
Total number of targets	367
Number of False Positives	96
False Positives <13 mV	56
False Positives > 13 mV	40
Reacquisition target response (mV) > 100% of Grid Value (No FP)	67
Targets less than 1.0 ft	21
Targets greater than 1.0 and less than equal to 2.0 ft	27
Targets greater than 2.0 and less than or equal to 3.0 ft	12
Targets greater than 3.0 ft	7
Reacquisition target response (mV) > 200% of Grid Value (No FP)	32
Targets less than 1.0 ft	6
Targets greater than 1.0 and less than equal to 2.0 ft	14
Targets greater than 2.0 and less than or equal to 3.0 ft	8
Targets greater than 3.0 ft	4
Reacquisition target response (mV) > 300% of Grid Value (No FP)	17
Targets less than 1.0 ft	3
Targets greater than 1.0 and less than equal to 2.0 ft	6
Targets greater than 2.0 and less than or equal to 3.0 ft	6
Targets greater than 3.0 ft	2

FP = false positives
ft = feet
mV = millivolts

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
06_09a	N31-0001	737157.25	1013836.00	104.7	737156.126	1013835.78	192.5	1.14	13.74
	N32-0004	737153.75	1013954.25	35.8	737154.412	1013954.55	66.0	0.73	8.73
	M29-0053	737058.75	1013554.00	133.3	737056.723	1013553.32	354.8	2.14	25.66
	M28-0108	737059.25	1013468.25	28.4	737058.811	1013468.37	62.5	0.46	5.48
	N29-0078	737233.75	1013615.50	36.8	737232.647	1013614.54	346.0	1.46	17.55
	M32-0047	737039.50	1013908.50	137.6	737039.375	1013908.34	168.6	0.20	2.41
06_09b	M21-0053	737076.50	1012554.25	17.1	737076.486	1012554.32	27.7	0.07	0.85
	M21-0039	737002.75	1012531.75	16.3	737003.453	1012531.06	19.1	0.99	11.83
	P21-0054	737402.75	1012575.00	81.0				False Positive	False Positive
	P22-0007	737450.75	1012637.00	46.5				False Positive	False Positive
	O22-0075	737357.25	1012660.00	30.3	737356.974	1012659.91	45.6	0.29	3.50
	O24-0126	737304.25	1012949.50	19.5	737298.517	1012950.93	738.6	5.91	70.94
06_10a	M20-0162	737053.75	1012432.25	39.6	737053.957	1012432.90	82.8	0.68	8.14
	N20-0056	737165.50	1012420.00	38.4	737165.505	1012419.79	56.3	0.21	2.56
	O19-0202	737333.50	1012366.50	19.2	737334.115	1012365.32	63.9	1.33	15.95
	M20-0108	737016.25	1012486.00	382.4	737016.684	1012484.86	526.7	1.22	14.64
	M19-0125	737083.50	1012355.75	10.4	737083.448	1012355.86	31.6	0.12	1.45
	O19-0171	737253.00	1012341.75	14.3				False Positive	False Positive
06_10b	N19-0027	737168.25	1012291.00	10.9	737169.156	1012290.46	35.6	1.05	12.66
	N18-0109	737214.25	1012239.75	64.4	737213.373	1012238.40	78.6	1.61	19.31
	M17-0055	737029.50	1012007.25	50.0	737029.649	1012007.98	454.1	0.74	8.93
	P19-0019	737490.25	1012302.00	15.7				False Positive	False Positive
	P19-0092	737490.75	1012256.00	38.1	737490.76	1012256.23	47.6	0.23	2.81
	O19-0052	737373.50	1012321.50	10.7	737373.483	1012321.42	14.0	0.08	0.93
06_11b	O31-0043	737319.50	1013859.00	1688.2				False Positive	False Positive
	O32-0002	737300.80	1013938.30	15.4				False Positive	False Positive
	O32-0092	737342.50	1013895.30	10.1				False Positive	False Positive
	O32-100	737308.00	1013905.50	10.1				False Positive	False Positive
	P30-0196	737475.00	1013665.50	2300.5				False Positive	False Positive
06_12a	N28-0149	737222.80	1013496.80	10.7	737222.41	1013498.09	129.0	1.35	16.16
	O29-0243	737257.50	1013512.80	21.2	737258.62	1013512.02	33.6	1.36	16.37
	N30-0119	737214.80	1013651.30	305.4	737214.72	1013648.13	262.9	3.17	38.09
	N31-0106	737239.80	1013759.30	10.9				False Positive	False Positive
	N31-0115	737248.30	1013807.30	75.3	737248.38	1013809.22	89.6	1.92	23.03
	N32-0087	737249.00	1013912.80	78.7	737249.65	1013914.41	166.6	1.73	20.83
	N32-0060	737201.50	1013952.30	39.6	737201.93	1013950.56	38.7	1.79	21.53
06_13b	T34-0005	737918.80	1014194.80	23.0	737918.68	1014195.64	50.0	0.85	10.19
	T35-0046	737881.00	1014302.50	19.8	737880.02	1014302.72	67.9	1.00	12.03
	S35-0098	737806.50	1014350.30	29.0	737805.75	1014349.87	79.5	0.87	10.42
	T35-0111	737998.30	1014370.00	278.4	737999.16	1014370.09	307.3	0.86	10.37
	T35-0130	737923.30	1014374.50	78.5	737923.82	1014375.53	70.0	1.15	13.80
	S36-0028	737821.00	1014478.50	46.1	737820.57	1014478.23	100.9	0.51	6.13
06_14a	R34-0062	737721.50	1014186.50	15.3	737721.10	1014184.39	37.1	2.15	25.78
	R34-0073	737659.50	1014209.00	107.3	737659.11	1014209.32	148.7	0.50	6.06
06_14b	W35-0001	738255.00	1014269.30	56.0	738254.18	1014268.37	89.0	1.25	14.95
		738081.00	1014283.50	17.8	738080.13	1014283.93	49.1	0.97	11.67
	U35-0055	738010.30	1014335.50	16.2	738009.49	1014334.69	71.6	1.15	13.79
	U36-0014	738085.00	1014409.00	238.6	738084.16	1014408.39	342.7	1.04	12.49

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
06_16a	W36-0027	738271.50	1014416.00	192.9	738271.91	1014416.79	231.3	0.89	10.72
06_16b	S40-0004	737755.00	1014971.50	27.4	737754.41	1014971.30	41.8	0.62	7.50
	U41-0003	738020.30	1015006.80	92.0	738019.87	1015006.57	96.5	0.49	5.90
06_17b	S37-0004	737867.50	1014557.30	45.2	737867.68	1014556.47	49.3	0.85	10.18
	T37-0026	737973.50	1014565.30	11.4	737971.59	1014563.50	33.8	2.62	31.46
	T38-0040	737932.50	1014660.00	37.9				False Positive	False Positive
	R39-0025	737675.80	1014817.50	114.5	737675.19	1014816.92	157.1	0.85	10.15
06_17c	BB04-0010	738942.30	1010382.30	48.8	738941.76	1010382.47	59.4	0.56	6.76
	BB04-0027	738887.00	1010426.50	43.2	738888.49	1010425.59	44.0	1.74	20.92
	BB05-0048	738937.00	1010619.50	21.0	738937.21	1010619.59	34.9	0.23	2.73
	BB06-0003	738940.30	1010630.80	33.5	738939.92	1010629.47	40.6	1.39	16.65
06_18	K26-0005	736815.50	1013134.30	52.1	736815.27	1013135.60	53.6	1.32	15.89
	L26-0007	736885.30	1013145.50	11.8	736886.10	1013146.00	21.8	0.94	11.28
	L26-0016	736942.80	1013151.50	10.7	736942.97	1013151.64	138.9	0.22	2.66
	K26-0024	736793.30	1013164.50	77.8	736794.87	1013162.64	75.0	2.43	29.15
	L26-0011	736977.80	1013180.00	124.4	736977.81	1013178.12	126.9	1.88	22.55
	K29-0061	736860.50	1013598.30	20.4	736860.40	1013599.40	35.8	1.10	13.24
	L29-0131	736928.50	1013602.30	97.0	736928.44	1013602.33		0.07	0.82
	L30-0006	736887.30	1013712.80	14.6	736884.59	1013710.07	30.8	3.84	46.13
	K30-0020	736765.00	1013733.30	15.7	736766.74	1013730.70	17.4	3.13	37.59
	K31-0023	736767.30	1013849.30	106.0	736767.67	1013850.57	244.6	1.32	15.84
06_19	Masked	736627.50	1013229.30	13.4				False Positive	False Positive
	J27-0020	736706.00	1013316.50	96.8	736706.67	1013315.52	103.6	1.19	14.25
	I29-0011	736580.80	1013535.00	239.8	736581.58	1013535.43	355.7	0.89	10.68
	J31-0020	736680.80	1013833.00	155.2	736681.29	1013832.20	187.5	0.94	11.23
	J32-0023	736699.30	1013912.50	74.9	736699.47	1013913.31	79.4	0.83	9.96
06_20	H25-0010	736378.80	1013008.30	62.4	736379.33	1013007.94	91.6	0.64	7.72
	G27-0007	736355.00	1013308.30	11.6				False Positive	False Positive
	Masked	736367.80	1013469.80	10.7	736370.60	1013467.67	22.1	3.52	42.26
	G33-0042	736359.00	1014009.80	175.1	736359.90	1014009.28	189.6	1.04	12.50
	H34-0010	736442.30	1014189.80	27.9	736442.18	1014190.18	3.1	0.40	4.78
06_23	G26-0024	736339.80	1013190.30	114.2	736340.80	1013189.92	149.3	1.07	12.90
	G30-0025	736322.80	1013718.00	51.8	736322.94	1013717.80	43.3	0.25	2.99
06_24	H27-0014	736492.30	1013284.00	41.3	736492.87	1013283.91	61.3	0.57	6.88
	I30-0022	736502.30	1013662.00	14.7				False Positive	False Positive
	H31-0024	736479.30	1013795.30	112.2	736480.15	1013793.16	152.6	2.30	27.61
	I31-0014	736558.80	1013806.80	132.0	736557.82	1013807.11	201.3	1.02	12.28
06_25a	E26-0002	736123.80	1013147.50	13.5	736123.39	1013147.83	23.0	0.53	6.32
	E26-0013	736031.30	1013196.80	38.0	736033.55	1013195.93	38.3	2.41	28.97
	G26-0003	736272.80	1013212.00	113.5				False Positive	False Positive
	F27-0006	736175.80	1013322.50	35.0	736176.27	1013319.40	54.2	3.13	37.61
	G31-0001	736262.50	1013789.00	112.2				False Positive	False Positive
	E31-0004	736112.50	1013809.80	117.2				False Positive	False Positive
	F32-0015	736160.00	1013941.30	9.8				False Positive	False Positive
	G33-0022	736278.80	1014095.30	27.8	736279.79	1014096.18	43.1	1.33	15.93
06_25b	I34-0022	736520.50	1014151.30	9.8				False Positive	False Positive
	I35-0038	736556.80	1014262.80	52.2	736556.68	1014262.16	103.0	0.65	7.77
	I36-0055	736565.00	1014453.80	154.0	736561.20	1014456.18	187.8	4.48	53.83

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
06_26	K33-0013	736768.80	1014013.50	391.1				False Positive	False Positive
	J33-0003	736636.30	1014076.00	16.5	736637.87	1014076.95	37.1	1.83	22.03
	K33-0006	736841.00	1014112.50	9.9	736847.87	1014118.28		8.98	107.75
	J34-0020	736673.30	1014228.30	14.6	736674.08	1014227.50	6.4	1.11	13.35
	K35-0017	736841.30	1014363.30	10.9	736844.28	1014365.51	4.8	3.70	44.47
	I36-0004	736578.00	1014383.00	89.6				False Positive	False Positive
	J36-0010	736657.50	1014384.00	76.1				False Positive	False Positive
	K36-0010	736867.50	1014409.00	111.8	736865.13	1014408.06	5.8	2.55	30.57
06_27a	O33-0073	737372.00	1014048.00	64.7	737371.87	1014046.42	2.8	1.59	19.07
	M33-0020	737064.30	1014061.00	83.1	737062.94	1014059.84	6.1	1.79	21.47
	N33-0020	737165.00	1014061.30	54.2	737164.89	1014061.28	5.4	0.11	1.35
	N33-0010	737147.30	1014086.30	126.7	737147.41	1014085.05	14.1	1.26	15.12
	M34-0004	737010.00	1014146.00	12.8	737008.35	1014144.27	3.8	2.39	28.69
	N34-0010	737148.30	1014164.00	109.3	737148.73	1014163.74	6.0	0.50	6.00
	N34-0041	737195.50	1014168.50	19.0	737196.13	1014168.51	3.5	0.63	7.50
	P37-0002	737390.80	1014580.00	154.7	737391.14	1014580.16	5.3	0.37	4.44
06_27b	O09-0014	737343.50	1011008.80	10.7	737343.22	1011009.06	22.3	0.39	4.64
	P09-0076	737499.50	1011097.30	79.0	737498.91	1011097.52	107.1	0.63	7.56
	P09-0002	737381.00	1011102.00	84.5	737380.84	1011101.90	91.9	0.19	2.23
	P11-0054	737451.50	1011296.80	9.7	737452.34	1011296.04	30.2	1.14	13.65
	P11-0024	737408.30	1011309.80	371.7	737407.85	1011310.71	409.0	1.02	12.20
	P12-0049	737458.50	1011462.00	13.9				False Positive	False Positive
	O14-0011	737336.80	1011665.00	13.7	737336.67	1011665.10	39.3	0.16	1.93
	O14-0007	737332.00	1011736.80	171.1	737331.56	1011736.72	323.9	0.45	5.40
	P15-0069	737433.30	1011802.80	168.8	737433.02	1011802.31	244.7	0.57	6.83
06_30	L08-0011	736907.80	1010988.50	100.7	736906.81	1010988.59	123.8	0.99	11.92
	L09-0028	736982.80	1011004.00	31.2	736982.64	1011003.84	38.6	0.22	2.69
	K09-0020	736812.50	1011066.80	29.0	736810.73	1011065.46	114.4	2.22	26.64
	K09-0016	736799.30	1011118.00	13.6				False Positive	False Positive
	K11-0019	736803.00	1011308.80	28.2	736803.98	1011308.15	83.3	1.18	14.15
	K12-0015	736823.50	1011416.00	13.3	736821.23	1011417.15	59.6	2.55	30.55
	K14-0018	736792.30	1011724.30	49.6	736793.42	1011726.22	971.2	2.23	26.71
	L16-0038	736960.50	1011907.00	149.4	736959.27	1011906.27	231.0	1.43	17.17
	L18-0062	736978.80	1012168.50	14.1	736980.20	1012168.64	23.6	1.41	16.87
	L19-0039	736927.80	1012343.50	141.0	736928.85	1012343.38		1.05	12.65
	L21-0100	736983.80	1012537.80	148.2	736984.33	1012538.54	260.5	0.91	10.94
07_01a	K16-0020	736857.00	1011922.30	27.1	736857.21	1011923.92	62.4	1.64	19.66
	K16-0044	736766.80	1011997.80	10.1				False Positive	False Positive
	K20-0022	736847.30	1012441.50	163.5	736846.32	1012440.98	280.0	1.11	13.33
	K22-0024	736817.50	1012667.80	108.7	736816.74	1012668.25	135.8	0.89	10.63
	K22-0044	736862.50	1012706.80	135.9	736861.48	1012707.11	217.7	1.07	12.82
07_01b	F14-0047	736199.50	1011729.00	59.8	736199.15	1011730.14	128.1	1.19	14.32
	Masked	736178.30	1011802.80	10.3				False Positive	False Positive
	G15-0016	736297.80	1011867.00	20.7				False Positive	False Positive
	F17-0004	736139.30	1012006.50	14.8				False Positive	False Positive
	D18-0001	735992.80	1012137.50	36.4	735992.96	1012137.70	68.4	0.26	3.10

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
07_02	J08-0003	736702.80	1010952.30	22.5	736700.94	1010949.72	507.8	3.19	38.25
	I09-0003	736618.50	1011029.50	157.8	736618.26	1011029.19	191.9	0.39	4.72
	J14-0014	736644.50	1011707.00	25.7	736644.78	1011707.51	41.0	0.58	6.93
	H14-0001	736376.80	1011734.00	62.8				False Positive	False Positive
	I15-0072	736606.80	1011791.50	107.4				False Positive	False Positive
	H15-0018	736436.50	1011845.00	10.6				False Positive	False Positive
	G16-0052	736360.50	1011923.30	10.2				False Positive	False Positive
	H17-0014	736447.80	1012002.00	21.6				False Positive	False Positive
07_03a	I10-0006	736575.00	1011209.50	20.0	736573.35	1011208.82	19.2	1.78	21.41
	H10-0003	736499.00	1011242.50	18.3	736500.34	1011242.71	73.5	1.35	16.23
	I11-0017	736622.30	1011287.00	10.3				False Positive	False Positive
	H12-0018	736464.80	1011408.50	70.8			108.7	False Positive	False Positive
07_03b	RA06-0005	737727.30	1010653.00	65.0	737726.56	1010652.90	199.4	0.74	8.92
	TA06-0013	737904.30	1010694.80	133.1	737903.57	1010694.92	249.6	0.74	8.91
	WA07-0002	738295.50	1010751.50	260.9	738296.33	1010752.60	546.6	1.37	16.50
	CC07-0005	739090.80	1010838.00	53.6	739091.05	1010837.67	77.8	0.41	4.98
07_07a	Masked	739784.00	1010875.00	9.8				False Positive	False Positive
	KK08-0005	740003.80	1010919.50	10.3				False Positive	False Positive
	II08-0008	739808.50	1010934.50	102.2	739807.47	1010934.92	227.7	1.11	13.38
07_07b	Q06-0003	737592.00	1010742.50	113.5	737592.00	1010742.98	108.5	0.48	5.71
	Q10-0024	737587.50	1011175.80	70.6	737585.78	1011174.60	116.8	2.10	25.20
	Q10-0011	737607.00	1011194.30	91.8	737605.06	1011195.66	642.2	2.37	28.45
07_08a	V03-0006	738154.00	1010368.80	60.6				False Positive	False Positive
	S04-0005	737826.00	1010432.80	59.4	737824.01	1010431.65	76.1	2.30	27.60
	V04-0012	738170.80	1010489.30	11.8	738172.51	1010489.34	41.1	1.71	20.49
	T08-0046	737948.00	1010885.80	217.4	737948.38	1010886.27	277.8	0.61	7.32
	T08-0066	737998.50	1010932.00	11.5	737995.33	1010935.55	42.5	4.76	57.12
07_08b	FF06-0004	739477.50	1010737.80	130.1	739478.34	1010739.33	365.9	1.75	21.01
	HH06-0025	739731.00	1010748.00	120.4	739730.93	1010748.49	131.8	0.49	5.91
	GG07-0007	739587.80	1010758.00	11.2				False Positive	False Positive
	II07-0021	739874.00	1010793.80	93.9	739873.89	1010791.33	100.1	2.48	29.74
	HH08-0008	739705.30	1010884.80	167.3	739703.95	1010885.87	289.4	1.72	20.65
07_09	KK15-0097	740094.50	1011759.00	135.3	740094.48	1011759.05	133.3	0.05	0.65
	LL13-0018	740134.50	1011521.30	10.4				False Positive	False Positive
	LL13-0057	740190.50	1011539.80	31.9	740190.13	1011541.38	35.3	1.63	19.53
	LL13-0074	740227.50	1011620.80	21.1	740226.22	1011619.86	31.7	1.59	19.12
	LL15-0025	740191.30	1011788.00	13.5	740191.57	1011786.99	105.3	1.04	12.50
	LL15-00444	740232.80	1011847.00	9.7	740232.87	1011846.71	18.1	0.30	3.57
	LL16-0043	740190.30	1011969.80	48.8	740189.74	1011970.01	48.1	0.60	7.15
	LL17-0043	740175.80	1012067.50	176.6	740176.54	1012068.66	378.4	1.37	16.46
	MM13-0008	740281.50	1011617.00	28.3	740282.71	1011617.07	89.4	1.21	14.58
	MM14-0024	740297.00	1011736.50	142.6				False Positive	False Positive
	NN12-0062	740402.30	1011458.50	20.0	740403.76	1011459.24	69.5	1.64	19.70
07_10b	07_10b-22	739418.30	1011062.80	301.7	739418.76	1011062.65	483.4	0.49	5.84
	EE10-0007	739308.30	1011250.00	20.3	739309.34	1011249.84	62.7	1.05	12.61
	07_10b-165	739224.00	1011321.30	496.3	739222.84	1011320.25	1022.1	1.56	18.79
	07_10b-311	739148.30	1011413.30	11.4	739148.45	1011414.19	24.1	0.90	10.78
	07_10b-396	739313.00	1011453.00	116.6	739312.66	1011452.17	178.6	0.90	10.81

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
07_10c	NN20-0009	740452.50	1012466.00	68.0	740452.24	1012465.43	169.9	0.63	7.60
	MM21-0004	740372.50	1012501.00	145.9	740371.79	1012500.03	193.3	1.20	14.41
	NN21-0023	740405.50	1012559.80	114.0	740404.64	1012560.07	150.8	0.90	10.77
	NN21-0024	740395.50	1012561.50	11.8	740394.41	1012562.53	20.1	1.50	18.06
	NN22-0021	740386.00	1012684.30	13.6	740386.63	1012683.17	23.1	1.30	15.59
	NN23-0018	740399.80	1012750.50	10.1	740398.50	1012752.43	19.8	2.33	27.92
	NN23-0015	740412.30	1012752.50	24.1	740414.70	1012753.63	130.8	2.65	31.80
07_11	OO20-0005	740507.50	1012376.00	65.1	740507.21	1012376.60	67.7	0.66	7.97
	PP20-0012	740705.80	1012432.50	242.1				False Positive	False Positive
	QQ21-0004	740823.80	1012540.80	83.7				False Positive	False Positive
	PP22-0005	740719.30	1012686.50	24.5	740719.44	1012686.35	44.9	0.21	2.47
	OO22-0005	740528.80	1012720.00	467.3				False Positive	False Positive
	QQ24-0001	740868.80	1012890.30	78.2	740868.74	1012889.69	135.1	0.61	7.31
	PP24-0010	740665.00	1012896.50	41.5	740665.06	1012896.09	51.5	0.42	5.02
	QQ25-0011	740781.30	1013074.30	83.1	740781.09	1013074.27	9470.7	0.21	2.51
	MM27-0004	740297.80	1013264.00	83.4				False Positive	False Positive
	OO27-0003	740579.80	1013346.30	11.5				False Positive	False Positive
	PP28-0001	740707.30	1013402.80	43.8	740708.30	1013402.16	95.7	1.18	14.20
	PP28-0003	740653.50	1013437.50	11.0				False Positive	False Positive
07_12a	NN24-0010	740398.50	1012998.30	184.5	740397.80	1012999.72	293.9	1.59	19.08
	NN25-0004	740387.50	1013010.30	149.5	740388.03	1013008.43	45.5	1.94	23.32
	MM26-0030	740297.30	1013179.80	10.9				False Positive	False Positive
	NN28-0003	740474.00	1013403.50	17.2				False Positive	False Positive
	OO28-0006	740505.30	1013467.30	43.6	740506.16	1013468.09	34.6	1.17	14.03
	OO29-0004	740598.50	1013549.00	10.6				False Positive	False Positive
	OO29-0011	740504.50	1013612.30	35.5				False Positive	False Positive
07_12b	MM20-0004	740295.80	1012435.00	13.2				False Positive	False Positive
	MM23-0020	740250.80	1012841.80	13.7				False Positive	False Positive
	KK24-0075	740007.50	1012891.80	14.8	740007.15	1012892.64	31.3	0.91	10.86
	KK24-0029	740082.00	1012901.30	17.3	740081.54	1012901.67	26.5	0.59	7.08
	KK24-0018	740113.00	1012965.30	10.8	740113.15	1012964.46	30.9	0.85	10.22
	LL25-0001	740247.50	1013049.50	41.6	740247.79	1013049.62	52.4	0.31	3.69
07_14	JJ25-0010	739975.00	1013067.50	13.5	739976.33	1013069.09	116.7	2.07	24.88
	JJ25-0022	739944.75	1013084.25	48.9	739944.62	1013082.87	31.7	1.39	16.66
	II25-0015	739780.00	1013116.00	27.4				False Positive	False Positive
	HH26-0021	739720.00	1013151.00	299.6	739720.28	1013149.96	319.8	1.08	12.95
	JJ26-0038	739917.00	1013166.25	12.5	739916.77	1013163.99	21.7	2.27	27.22
	LL26-0018	740176.50	1013194.25	37.9	740175.88	1013195.37	48.2	1.28	15.38
	GG26-0012	739612.75	1013230.75	193.5	739612.53	1013229.62	259.1	1.15	13.80
	KK27-0003	740115.75	1013255.25	12.2	740115.50	1013254.82	25.7	0.50	6.00
	JJ27-0010	739982.50	1013283.75	53.9	739982.78	1013283.71	50.3	0.28	3.38
	KK27-0027	740032.25	1013328.25	60.4	740032.35	1013328.89	96.0	0.65	7.78
	KK27-0032	740027.25	1013354.00	10.9				False Positive	False Positive
	LL28-0005	740148.75	1013376.75	10.3				False Positive	False Positive

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
07_15	EE26-0140	739339.30	1013186.00	188.9	739340.07	1013185.23	254.1	1.09	13.04
	JJ28-0019	739926.30	1013485.00	66.2	739925.99	1013485.45	73.9	0.54	6.52
	II29-0024	739790.00	1013520.30	175.8	739790.75	1013519.84	273.0	0.88	10.53
	FF29-0048	739434.80	1013578.30	68.1	739434.66	1013578.34	83.1	0.15	1.80
	FF29-0004	739494.80	1013594.50	156.0	739495.03	1013594.98	131.1	0.53	6.32
	EE30-0023	739352.00	1013645.30	160.0	739351.85	1013645.52	178.1	0.26	3.17
07_17	HH32-0008	739729.30	1013973.00	317.0	739729.22	1013972.08	591.8	0.92	11.05
	II32-0002	739767.00	1013988.80	9.6	739766.91	1013989.77	23.4	0.98	11.72
	HH33-0022	739700.50	1014067.50	57.3	739700.88	1014067.66	93.6	0.42	5.00
	FF33-0034	739465.80	1014069.30	69.7	739464.78	1014071.35	77.7	2.29	27.43
	DD33-0032	739241.00	1014103.50	88.1				False Positive	False Positive
	FF34-0017	739477.80	1014146.50	26.1	739477.01	1014144.55	60.6	2.10	25.26
	EE34-0026	739332.50	1014171.00	72.6				False Positive	False Positive
07_18a	LL28-0019	740171.75	1013411.25	10.1				False Positive	False Positive
	LL31-0014	740132.75	1013755.00	10.1				False Positive	False Positive
	KK33-0029	740107.00	1014024.25	11.0				False Positive	False Positive
	EE34-0055	739293.50	1014177.25	9.7				False Positive	False Positive
	GG34-0034	739556.25	1014195.25	11.1				False Positive	False Positive
	II34-0039	739855.00	1014210.00	160.7	739853.27	1014209.75	242.9	1.75	21.00
	KK34-0024	740049.50	1014243.00	13.4				False Positive	False Positive
	EE34-0040	739359.50	1014247.25	9.7				False Positive	False Positive
07_18b	JJ36-0007	739972.50	1014485.00	16.7				False Positive	False Positive
	II37-0019	739812.00	1014604.00	99.0				False Positive	False Positive
	JJ37-0033	739930.50	1014623.00	9.8				False Positive	False Positive
	GG38-0007	739624.50	1014689.00	15.7				False Positive	False Positive
	FF39-0001	739495.75	1014824.25	9.6				False Positive	False Positive
	HH39-0015	739714.50	1014856.75	13.3				False Positive	False Positive
	CC41-0006	739034.50	1015089.25	9.5				False Positive	False Positive
	CC42-0012	739006.25	1015196.50	10.1				False Positive	False Positive
07_19a	AA35-0050	738817.50	1014266.80	19.8	738818.11	1014268.39	31.8	1.70	20.44
	BB35-0054	738878.00	1014268.80	46.1	738880.51	1014270.96	93.9	3.31	39.75
	AA35-0117	738767.80	1014279.80	22.3	738767.77	1014280.82	18.9	1.02	12.23
	AA35-0014	738857.80	1014317.00	9.8	738856.81	1014318.84	13.3	2.09	25.12
07_21a	CC37-0005	739064.75	1014602.00	11.8				False Positive	False Positive
	GG37-0008	739503.50	1014605.25	9.6				False Positive	False Positive
	CC38-0002	739054.50	1014738.75	68.4	739054.86	1014738.80	78.0	0.36	4.37
	EE39-0007	739333.00	1014807.50	9.7				False Positive	False Positive
	DD39-0011	739189.00	1014811.50	10.0				False Positive	False Positive
	CC39-0005	739043.00	1014818.25	10.1				False Positive	False Positive
	EE39-0003	739273.50	1014823.75	63.1	739273.72	1014823.39	119.9	0.43	5.12
	CC39-0020	739067.50	1014825.75	10.1				False Positive	False Positive
	DD39-0016	739220.50	1014838.75	10.6				False Positive	False Positive
	DD39-0003	739132.50	1014846.75	12.9				False Positive	False Positive

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
	Masked	740014.75	1012739.25	11.1				False Positive	False Positive
	Masked	740103.25	1012770.25	10.0				False Positive	False Positive
	II23-0180	739751.25	1012782.75	14.3	739754.25	1012779.29	48.1	4.58	54.97
07_21b	KK23-0087	740016.50	1012798.75	10.2	740016.09	1012799.67	19.7	1.01	12.09
	II23-0105	739873.25	1012816.50	10.2				False Positive	False Positive
	JJ23-0080	739947.50	1012850.25	29.9	739946.93	1012850.46	39.8	0.61	7.35
	MM24-0012	740261.00	1012892.00	10.1	740262.23	1012889.65	50.2	2.65	31.80
	LL24-0076	740184.00	1012919.50	12.2				False Positive	False Positive
	II21-0047	739865.00	1012516.30	148.2	739862.97	1012516.07	159.1	2.04	24.49
07_22a	II21-0096	739780.30	1012589.50	269.0	739780.91	1012589.40	337.2	0.62	7.42
	JJ21-0034	739947.30	1012604.80	174.9	739947.41	1012606.31	211.5	1.51	18.15
	LL21-0025	740145.30	1012603.30	120.4	740145.80	1012603.25	148.9	0.50	5.97
	Q41-0001	737618.50	1015034.80	22.8	737617.70	1015035.05	36.5	0.84	10.11
07_22b	S42-0008	737834.50	1015132.00	33.9	737834.49	1015132.33	51.7	0.33	3.91
	S42-0009	737819.00	1015167.00	10.0	737819.00	1015167.19	30.5	0.19	2.28
	L38-0021	736911.00	1014709.75	13.2				False Positive	False Positive
	M38-0015	737002.00	1014744.50	13.4				False Positive	False Positive
	M38-0020	737040.50	1014746.50	105.1	737040.17	1014745.89	99.5	0.69	8.32
	Masked	737448.75	1014769.00	78.8	737447.81	1014768.71	119.7	0.98	11.77
07_23	N39-0001	737132.75	1014769.00	135.0	737133.04	1014768.83	174.0	0.34	4.07
	N39-0019	737222.75	1014824.00	12.7				False Positive	False Positive
	M39-0013	737072.75	1014827.75	11.6				False Positive	False Positive
	Masked	737405.25	1014862.00	11.2				False Positive	False Positive
	O40-0025	737351.50	1014980.00	47.4	737352.20	1014980.34	76.3	0.77	9.27
	07_25a-56	738342.00	1014487.00	55.0				False Positive	False Positive
07_25a	07_25a-151	738273.50	1014613.30	107.0	738272.66	1014611.27	124.4	2.20	26.35
	07_25a-246	738272.80	1014769.00	159.7	738272.13	1014768.65	131.5	0.76	9.08
	07_25b-47	738548.50	1014264.00	122.5	738548.25	1014264.86	129.7	0.89	10.72
07_25b	07_25b-210	738664.50	1014665.50	219.2	738663.40	1014666.51	425.0	1.49	17.85
	07_25b-253	738550.30	1014760.30	9.9				False Positive	False Positive
	J22-0010	736726.00	1012736.00	12.2	736727.11	1012738.46	38.3	2.70	32.44
07_26a	J23-0010	736715.50	1012841.00	150.0	736716.34	1012840.89	223.3	0.85	10.19
	J24-0012	736716.50	1012919.80	142.6	736716.03	1012919.62	239.5	0.50	6.02
	L24-0086	736887.50	1012945.50	252.4	736887.15	1012945.91	296.3	0.54	6.54
	G18-0023	736252.50	1012247.25	11.5				False Positive	False Positive
	G19-0012	736302.75	1012335.75	58.5	736303.31	1012336.80	86.2	1.18	14.20
	H20-0023	736382.75	1012469.25	9.6				False Positive	False Positive
	J21-0091	736640.00	1012502.50	181.6	736638.61	1012502.20	159.1	1.42	17.06
	H21-0020	736396.50	1012546.25	9.5				False Positive	False Positive
07_28	J21-0049	736734.75	1012548.00	10.3				False Positive	False Positive
	I22-0010	736591.00	1012675.75	11.0				False Positive	False Positive
	I23-0056	736552.00	1012752.50	135.0	736552.08	1012750.72	232.8	1.78	21.37
	I23-0064	736521.25	1012788.00	130.8	736521.96	1012787.71	153.0	0.77	9.19
	I23-0016	736603.00	1012833.50	10.1				False Positive	False Positive
	J24-0075	736629.00	1012932.25	13.9				False Positive	False Positive
	I24-0014	736624.00	1012979.00	14.4				False Positive	False Positive

		Reacquisition Target List			Reacquired Anomaly Statistics				
Data File	Anomaly ID	EASTING	NORTHING	Grid Value (mV)	EASTING	NORTHING	Peak Response (mV)	Distance Offset (US Feet)	Distance Offset (inches)
	Masked	Not Found	Not Found						
	F22-0082	736164.75	1012681.00	78.4	736165.41	1012681.90	57.9	1.12	13.44
	H22-0041	736406.50	1012728.50	77.0	736406.20	1012728.28	80.7	0.38	4.52
	F23-0007	736195.50	1012753.75	9.9				False Positive	False Positive
07-29a	G23-0033	736323.00	1012817.50	9.5				False Positive	False Positive
	G23-0059	736282.25	1012859.25	51.7				False Positive	False Positive
	H24-0052	736475.75	1012890.50	10.0				False Positive	False Positive
	Masked	Not Found	Not Found						
	U40-0015	738105.00	1014913.25	522.5	738103.80	1014912.24	596.0	1.57	18.85
	V41-0012	738203.75	1015068.00	10.3				False Positive	False Positive
07_29b	V41-0054	738151.25	1015075.00	10.6				False Positive	False Positive
	U42-0057	738060.50	1015156.75	9.7				False Positive	False Positive
	U42-0038	738086.00	1015166.75	118.3	738084.40	1015166.66	160.0	1.61	19.29
	Masked	Not Found	Not Found						
	U36-0109	738031.50	1014438.00	9.9				False Positive	False Positive
	U36-0110	738029.00	1014494.75	123.9	738029.15	1014494.90	165.6	0.21	2.50
	U37-0005	738081.00	1014525.25	77.8	738079.98	1014525.25	105.7	1.02	12.20
07_30	U37-0038	738045.75	1014601.75	55.2	738045.20	1014601.73	59.5	0.55	6.57
	U38-0048	738014.50	1014721.75	10.4				False Positive	False Positive
	U39-0075	738076.00	1014752.00	17.3				False Positive	False Positive
	Q38-0028	737555.50	1014747.00	9.7				False Positive	False Positive
	Q39-0031	737548.25	1014780.50	12.1				False Positive	False Positive
	P39-0026	737409.00	1014868.00	10.3				False Positive	False Positive
07_31	P40-0004	737497.75	1014884.25	12.5				False Positive	False Positive
	Q40-0034	737501.75	1014897.75	10.3				False Positive	False Positive
	P40-0024	737400.50	1014903.25	41.8	737401.09	1014902.69	35.6	0.81	9.76
	Q40-0028	737522.25	1014961.25	28.5	737522.32	1014961.24	44.0	0.07	0.83
	V37-0018	738174.00	1014507.25	69.4	738173.88	1014508.01	53.5	0.77	9.24
	V37-0020	738161.75	1014589.75	41.2	738161.29	1014590.49	72.9	0.88	10.51
	V38-0032	738133.00	1014635.75	9.8	738132.70	1014636.10	16.9	0.46	5.57
	U38-0094	738006.50	1014658.00	9.6				False Positive	False Positive
08_01	U38-0056	738119.00	1014684.50	11.9				False Positive	False Positive
	V38-0012	738186.25	1014705.00	10.1				False Positive	False Positive
	V38-0013	738185.75	1014729.25	32.8	738186.78	1014727.97	54.7	1.65	19.75
	U39-0091	738083.25	1014758.75	30.2	738083.94	1014758.52	35.8	0.73	8.73
	P40-0032	737392.50	1014877.75	10.5				False Positive	False Positive
	O40-0034	737358.50	1014988.25	82.1	737359.32	1014988.08	198.4	0.84	10.04
	P40-0034	737377.50	1014988.50	9.6				False Positive	False Positive
	HH27-0096	739631.75	1013317.00	9.5	739633.56	1013317.69	42.4	1.93	23.22
08_04	JJ27-0048	739917.25	1013357.75	10.0	739916.27	1013358.83	20.9	1.45	17.44
	HH27-0079	739665.25	1013367.75	10.6				False Positive	False Positive
	JJ28-0044	739951.50	1013382.25	270.4	739952.65	1013382.78	375.6	1.27	15.23
	JJ22-0060	739888.25	1012676.25	10.0				False Positive	False Positive
	JJ22-0026	739949.50	1012683.00	10.5				False Positive	False Positive
08_05	II22-0081	739810.25	1012686.25	12.1				False Positive	False Positive
	KK22-0005	740113.50	1012705.00	69.2	740113.21	1012705.49	74.0	0.56	6.78
	II22-0088	739787.75	1012721.00	138.3	739787.86	1012721.12	231.5	0.16	1.91
	Total	**367**					**AVG**	**1.23**	**14.81**

mV = millivolts

APPENDIX F

TARGET REACQUISITION AND DIG RESULTS

APPENDIX F – TARGET REACQUISITION AND DIG RESULTS

During the Phase I Geophysical Investigation WESTON was tasked by USACE to reacquire, remove, and identify approximately 1,100 target anomalies from within the ODG wooded and non-wooded areas. The purpose of this investigation was to obtain pilot scale sample data representative of future Phase II MEC reacquisition and removal activities. Target anomaly reacquisition was conducted between 11 July and 30 July 2003, and consisted of removing a minimum of 600 anomalies within wooded areas (transect locations) and a minimum of 500 anomalies within non-wooded/open areas. Target data points were selected from the geophysical data and reacquired in the field using the Trimble RTK GPS. Upon reacquisition of a targeted anomaly position, the location was flagged and labeled with the grid number and primary anomaly ID (i.e., G10-0003-1). Additional anomaly IDs were assigned when multiple items were removed from one target location (i.e., G10-0003-2 etc.).

A total of 11 UXO Technicians (five two-man teams and one senior UXO supervisor) were mobilized to the site to dig the flagged locations. Each team consisted of one UXO Tech III Team Leader and one UXO Tech II Team Member. Three of the five UXO teams reacquired anomalies within the open areas, one UXO team reacquired anomalies within transects, and one UXO team continued with manual "mag & flag" operations within transects using *Schonstedt* GA-52CX ferrous metal detectors.

In accordance with USACE's Explosives Safety Submission, engineering controls were required when the UXO teams were working within 1,123 ft of the base boundary. Engineering controls consisted of USACE-approved Miniature Open Front Barricades (MOFBs) (Photos 7 and 8, Appendix A). The MOFBs were not required outside 1,123 ft of the base boundary. When the UXO teams were working within 200 ft of the property line, a safety observer was stationed outside the property fence to watch for vehicular and pedestrian traffic. When such traffic approached within 200 ft of the dig operation, the safety observer halted the dig team until the traffic had passed 200 ft from the operation.

During the course of anomaly reacquisition, WESTON and EOTI UXO Technicians investigated a total of 736 anomalies within wooded areas (transect locations). These anomalies included 3 MEC items, 184 munitions debris items, and 549 non-MEC items. A total of 512 anomalies were investigated within non-wooded/open areas. These anomalies included 46 MEC items, 247 munitions debris items, 205 non-MEC items, and 14 No Contacts. Dig sheet data is presented in Table F-1, and the ACRs and Daily Inspection Reports for anomaly reacquisition activities (11 July to 30 July 2003) are included as an attachment to this appendix.

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

WESTON Field Team	EOTI Field Team		Parsons Field Team
George Payne (SUXOS)	Carver Cobbins (TL)	MartyHolmes (TL)	Erich Stedman
Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of QE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
D26-0007	735966	1013190.3	Sum 1-4	62.09		7/10/2003	Non-OE	I-Beam	60	SE	0	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
D26-0008	735968.5	1013173.3	Sum 1-4	115.07		7/10/2003	Non-OE	Barb Wire Holder For Top of Fence	48	SE	0	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
D26-0010	735961.25	1013187.8	Sum 1-4	623.81		7/10/2003	Non-OE	I-Beam	48	SE	0	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
E25-0004	736062.5	1013102	Sum 1-4	72.84		7/10/2003	Non-OE	Round Stock	24	W	0	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
I36-0004	736578	1014383	Sum 1-4	89.64		7/10/2003	Non-OE	Horseshoe	8	W	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
I36-0011	736625	1014477	Sum 1-4	64.41		7/10/2003	Non-OE	Plow Tooth	20	S	5	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
I36-0013	736584	1014465.5	Sum 1-4	320.22		7/10/2003	Non-OE	Wire	6	W	0	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
I36-0018	736598.25	1014464.8	Sum 1-4	99		7/10/2003	Non-OE	Pick-Head	36	W	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
I36-0019	736579.51	1014443.9	Sum 1-4	67.53		7/10/2003	Non-OE	Plow Tooth	18	SW	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
I37-0007	736569	1014528.5	Sum 1-4	184.92		7/10/2003	Non-OE	Strap	18	E	2	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
J36-0024	736627.75	1014442.8	Sum 1-4	209.63		7/10/2003	Non-OE	Horseshoe	18	S	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
J37-0006	736742	1014562.3	Sum 1-4	92.84		7/10/2003	Non-OE	Strap	24	E	0.5	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
K36-0002	736857.75	1014379.3	Sum 1-4	138.62		7/10/2003	Non-OE	Horseshoe	18	W	2	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
K36-0010	736867.5	1014409	Sum 1-4	111.82		7/10/2003	Non-OE	Wrench	12	E	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
K37-0016	736863.75	1014621.8	Sum 1-4	123.37		7/10/2003	Non-OE	Scrap Metal	4	S	6	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
K39-0002	736871.75	1014768	Sum 1-4	77.38		7/10/2003	Non-OE	Pipe Wrench Head - Piece Only	8	E	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L33-0012	736979.75	1014013.5	Sum 1-4	84.22		7/10/2003	Non-OE	Plow Tooth	12	N	6	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L33-0021	736875.5	1014025.3	Sum 1-4	61.93		7/10/2003	Non-OE	Nail	6	N	6	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L33-0035	736980.25	1014078.8	Sum 1-4	102.12		7/10/2003	Non-OE	Plow Tooth	18	W	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L35-0003	736968.25	1014370.5	Sum 1-4	127.75		7/10/2003	Non-OE	Grounding Rod	12	NW	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L35-0015	736985	1014307	Sum 1-4	243.51		7/10/2003	Non-OE	Steel Flat Stock	12	NW	2	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L36-0011	736879.75	1014435	Sum 1-4	60.15		7/10/2003	Non-OE	Horseshoe	18	E	6	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L36-0013	736945.75	1014437.3	Sum 1-4	139.13		7/10/2003	Non-OE	Round Stock	30	W	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
L36-0020	736974.75	1014450.3	Sum 1-4	62.18		7/10/2003	Non-OE	Spike	18	W	7	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L36-0021	736923	1014449.3	Sum 1-4	119.97		7/10/2003	Non-OE	Horseshoe	20	W	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L36-0023	736952.5	1014449	Sum 1-4	120.49		7/10/2003	Non-OE	Hot Rock	18	E	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L39-0001	736904	1014797	Sum 1-4	182.58		7/10/2003	Non-OE	Flat Stock	8	SW	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
J36-0010	736657.5	1014384	Sum 1-4	76.06		7/10/2003	**OE**	**M-103 Fuze**	12	SE	7	M103 J36-0010	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003	Demilled	Disposed off-site
L33-0016	736979.75	1014007.8	Sum 1-4	72.8		7/10/2003	**OE**	**20mm Unfuzed**	8	N	1	20mm L33-0016	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003	Demilled	Disposed off-site
L33-0025	736985.25	1014051	Sum 1-4	214.9		7/10/2003	**OE**	**M-103 Fuze**	6	N	2	M103 L33-0025	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003	Demilled	Disposed off-site
L38-0007	736948.75	1014695.5	Sum 1-4	220.56		7/10/2003	**OE**	**M-103 Fuze Armed**	3	E	3	M103 L38-0007	7/11/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
K37-0013	736834.25	1014547.8	Sum 1-4	219.78		7/10/2003	ORS	Frag	18	NE	2	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L33-0002	736932.25	1014029.8	Sum 1-4	70.95		7/10/2003	ORS	M-51 Series (T-Bar)_ Fuze	30	W	4	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Poor	JW	7/12/2003		Disposed off-site
L33-0017	736948.25	1014120.8	Sum 1-4	103.75		7/10/2003	ORS	57mm Base	8	E	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Good	JW	7/12/2003		Disposed off-site
L33-0018	736913.25	1014008.8	Sum 1-4	159.63		7/10/2003	ORS	Frag	24	S	3	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
L33-0052	736963	1014045.3	Sum 1-4	583.64		7/10/2003	ORS	75mm Slug	18	N	6	NA	7/11/2003	JK	Yes	FJH	7/12/2003	Average	JW	7/12/2003		Disposed off-site
E29-0001	736020.25	1013564.3	Sum 1-4	82.21		7/11/2003	Non-OE	Multiple Pieces of Wire	20	W	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
E29-0002	736041.25	1013621	Sum 1-4	197.86		7/11/2003	Non-OE	Multiple Pieces of Chain	20	W	4	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
E31-0003	736117.25	1013802.8	Sum 1-4	116.82		7/11/2003	NA	NO Contact				NA	7/14/2003	JK	Yes	FJH	7/15/2005	NA	JW	7/15/2003		
E31-0004	736112.5	1013809.8	Sum 1-4	117.23		7/11/2003	**OE**	**M-103 Fuze**	18	SE	6	M103 E31-0004	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2005	Demilled	Disposed off-site
F29-0002	736153.75	1013619.5	Sum 1-4	168.14		7/11/2003	**OE**	**Projectile Fuze VT (Armed)**	12	N	3	VT Fuze F29-0002	7/14/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
F29-0007	736135	1013572.3	Sum 1-4	79.96		7/11/2003	Non-OE	Wire	9	W	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
F29-0018	736202.25	1013594.8	Sum 1-4	142.07		7/11/2003	Non-OE	Horseshoe	12	E	4	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site

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Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
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Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

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Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of QE	
										Offset		Depth (in)										
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie-C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
F29-0025	736162.25	1013525.8	Sum 1-4	367.15		7/11/2003	Non-OE	Spike	8	S	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
G30-0002	736281	1013729.5	Sum 1-4	87.13		7/11/2003	ORS	Frag	8	N	3	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
G31-0001	736262.5	1013789	Sum 1-4	112.21		7/11/2003	Non-OE	Plow Tooth	30	S	4	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Poor	JW	7/15/2003		Disposed off-site
G31-0005	736298.25	1013847.5	Sum 1-4	72.6		7/11/2003	Non-OE	Round Stock	18	W	6	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
G32-0002	736256.25	1013960	Sum 1-4	88.44		7/11/2003	Non-OE	Spike	18	SE	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
G33-0007	736299.25	1014044.3	Sum 1-4	528.6		7/11/2003	Non-OE	Pipe 6" x 2" (QC Item)	20	SW	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
G33-0018	736287.25	1014095.3	Sum 1-4	63.87		7/11/2003	Non-OE	Pipe 6" x 1" (QC Item)	36	NE	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Poor	JW	7/15/2003		Disposed off-site
G34-0005	736297.5	1014135.3	Sum 1-4	71.18		7/11/2003	Non-OE	Plow Tooth	2	SW	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
I33-0002	736591	1014117	Sum 1-4	86.36		7/11/2003	ORS	Frag	18	E	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
J33-0019	736658.5	1014026.3	Sum 1-4	80.38		7/11/2003	Non-OE	Plow Tooth	20	S	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
J33-0024	736670.25	1014089	Sum 1-4	98.42		7/11/2003	Non-OE	Horseshoe	20	W	2	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
J34-0011	736747.25	1014236	Sum 1-4	66.53		7/11/2003	Non-OE	Nut	60	SW	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Poor	JW	7/15/2003		Disposed off-site
J34-0014	736697.75	1014247.8	Sum 1-4	119.11		7/11/2003	ORS	Frag	12	SW	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
J35-0005	736660.75	1014323.8	Sum 1-4	413.22		7/11/2003	**OE**	**106mm HEAT Base Fuze**	18	SW	4	106mm Base J35-0005	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2005	Demilled	Disposed off-site
J35-0006	736638.25	1014326.5	Sum 1-4	82.3		7/11/2003	Non-OE	Spring	12	E	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
K33-0013	736768.75	1014013.5	Sum 1-4	391.1		7/11/2003	**OE**	**M-103 Fuze**	2	SW	0	M103 K33-0013	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2005	Demilled	Disposed off-site
K33-0014	736828.5	1014119.3	Sum 1-4	70.89		7/11/2003	ORS	Screw on Retaining Ring, 3 In	18	S	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
K33-0019	736856.75	1014049	Sum 1-4	155.71		7/11/2003	ORS	57mm Base Plate	18	E	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
K33-0026	736753	1014017.8	Sum 1-4	1266.01		7/11/2003	ORS	Frag	36	S	1	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Poor	JW	7/15/2003		Disposed off-site
K34-0008	736855.5	1014239.8	Sum 1-4	82.75		7/11/2003	**OE**	**M-103 Fuze**	30	W	2	M103 K34-0008	7/14/2003	JK	Yes	FJH	7/15/2003	Poor	JW	7/15/2003	Demilled	Disposed off-site
K34-0019	736824.5	1014165	Sum 1-4	240.99		7/11/2003	**OE**	**75mm APHE w/Base Fuze (Armed)**	2	W	4	75mm Fuzed K34-0019	7/14/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
K34-0021	736756.25	1014168.5	Sum 1-4	116.49		7/11/2003	Non-OE	Plow Tooth	18	E	4	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Average	JW	7/15/2003		Disposed off-site
K35-0003	736791.75	1014370.3	Sum 1-4	134.27		7/11/2003	ORS	Frag	6	N	0	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
K35-0013	736774.75	1014342.5	Sum 1-4	262.07		7/11/2003	Non-OE	Plow Tooth	12	E	4	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
K35-0021	736809.25	1014293.3	Sum 1-4	661.52		7/11/2003	ORS	Frag	12	E	6	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
K35-0025	736836.25	1014305.8	Sum 1-4	90.4		7/10/2003	ORS	Frag	2	N	2	NA	7/14/2003	JK	Yes	FJH	7/15/2005	Good	JW	7/15/2003		Disposed off-site
L34-0015	736894.75	1014242.3	Sum 1-4	91.94		7/10/2003	**OE**	**M-103 Fuze**	12	E	2	M103 L34-0015	7/14/2003	JK	Yes	FJH	7/15/2003	Good	JW	7/15/2003	Demilled	Disposed off-site
AA04-0030	738869.75	1010406.8	Sum 1-4	286.78		7/11/2003	ORS	2.36" Rocket Motor	2	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
AA04-0038	738871.75	1010434	Sum 1-4	171.32		7/11/2003	**OE**	**2.36" Rocket Motor Fuze**	0	NA	3	Rocket Motor w Fuze AA04-0038	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
AA04-0058	738860.25	1010497	Sum 1-4	64.68		7/11/2003	ORS	2.36" Rocket Motor	20	E	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
AA05-0034	738833.75	1010527	Sum 1-4	299.33		7/11/2003	ORS	Frag	18	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
AA05-0064	738845.25	1010594.8	Sum 1-4	195.47		7/11/2003	Non-OE	Pipe	12	E	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB04-0018	738913.75	1010406	Sum 1-4	24.35		7/11/2003	ORS	Frag	12	E	12	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB04-0020	738997.75	1010411.5	Sum 1-4	88.18		7/11/2003	ORS	Frag	12	E	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB04-0032	738882	1010442.5	Sum 1-4	69.78		7/11/2003	ORS	Frag	12	S	12	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB05-0026	738963	1010556.5	Sum 1-4	410.63		7/11/2003	ORS	Frag, Bomb, 20-lb	12	N	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB05-0035	738914.75	1010570	Sum 1-4	138.74		7/11/2003	ORS	2.36" Rocket Motor	18	SE	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
BB05-0036	738902.25	1010570.5	Sum 1-4	359.01		7/11/2003	ORS	Frag	20	SE	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
BB05-0046	738915.5	1010608	Sum 1-4	275.29		7/11/2003	ORS	2.36" Rocket Motor	8	E	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
BB06-0015	738894.25	1010664.3	Sum 1-4	225.73		7/11/2003	ORS	2.36" Rocket Motor	12	W	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
N17-0126	737183.5	1012110.8	Sum 1-4	1098.16		7/10/2003	ORS	Frag	20	W	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
N17-0168	737189.25	1012099	Sum 1-4	145.54		7/10/2003	ORS	Base Plate	14	W	8	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site

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Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
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Site Geophysicist: John Baptiste

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	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
										Offset		Depth (in)										
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
N17-0183	737218.75	1012107.8	Sum 1-4	785.84		7/10/2003	**OE**	**75mm Projectile**	20	W	6	None	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003	Demilled	Disposed off-site
N18-0015	737148.5	1012193.8	Sum 1-4	118.39		7/10/2003	**OE**	**Nose Fuze (Armed)**	12	N	3	Nose Fuze N18-0015	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
N18-0044	737142.75	1012171	Sum 1-4	107.33		7/10/2003	ORS	Nose Fuze Scrap	12	S	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
N18-0074	737240.25	1012179	Sum 1-4	613.46		7/10/2003	ORS	155mm RAP Round Tail (Empty)	20	E	6	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
N18-0166	737163.5	1012144	Sum 1-4	475.68		7/10/2003	ORS	Base Plug	12	S	5	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O14-0089	737327.75	1011694	Sum 1-4	254.36		7/11/2003	ORS	2.36" Rocket Motor	12	N	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O14-0097	737373.25	1011667.5	Sum 1-4	210.02		7/11/2003	ORS	57mm Projectile (Wax Filled)	6	SE	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O14-0102	737325.25	1011684.3	Sum 1-4	250.75		7/11/2003	ORS	Frag	0	NA	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O14-0103	737352.75	1011680.5	Sum 1-4	222.6		7/11/2003	ORS	Frag	0	NA	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O17-0148	737322	1012068	Sum 1-4	86.51		7/10/2003	Non-OE	Hot Rock	12	E	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O17-0148	737322	1012068	Sum 1-4	86.51		7/10/2003	ORS	Frag (5 Pieces)	12	W	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
O17-0161	737264.75	1012108.8	Sum 1-4	484.19		7/10/2003	ORS	Fuze and Frag Pieces	20	S	6	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
O17-0200	737273.75	1012084.8	Sum 1-4	226.14		7/10/2003	**OE**	**VT Fuze (Armed)**	8	W	12	VT Fuze O17-0200	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
O18-0171	737303.5	1012130	Sum 1-4	173.29		7/10/2003	ORS	Frag	18	N	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
P13-0004	737404.25	1011621	Sum 1-4	207.41		7/11/2003	ORS	75mm APHE Base Frag	0	NA	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P13-0023	737468	1011586	Sum 1-4	123.4		7/11/2003	**OE**	**M-103 Fuze**	0	NA	1	M-103 Fuze P13-0023	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P13-0025	737449.5	1011608.5	Sum 1-4	85.9		7/11/2003	**OE**	**M-103 Fuze**	0	NA	0	M-103 Fuze P13-0025	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P13-0053	737458	1011545	Sum 1-4	318.9		7/11/2003	Non-OE	Vehicle Part	12	S	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P13-0064	737471	1011576	Sum 1-4	76.87		7/11/2003	ORS	20mm Projectile (Empty)	12	N	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P13-0069	737495.75	1011564.5	Sum 1-4	264.34		7/11/2003	ORS	2.36" Rocket Motor	8	SE	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P13-0072	737481.75	1011540.8	Sum 1-4	130.55		7/11/2003	**OE**	**Rocket Burster**	12	N	1	Rocket Burster P13-0072	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P14-0028	737418.5	1011627.5	Sum 1-4	611.25		7/11/2003	ORS	2.36" Rocket Motor	0	NA	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P14-0051	737416	1011637	Sum 1-4	133.16		7/11/2003	ORS	M-51 Series (T-Bar) Fuze	0	NA	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P14-0113	737378.5	1011673.5	Sum 1-4	206.12		7/11/2003	**OE**	**m-103 Fuze (Armed)**	10	W	2	M-103 Fuze P14-0113	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P17-0101	737402	1012013	Sum 1-4	1505.22		7/10/2003	Non-OE	Fire Extinguisher	12	E	8	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
P17-0180	737469.25	1012023	Sum 1-4	115.14		7/10/2003	**OE**	**20mm Projectile**	12	N	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P17-0180	737469.25	1012023	Sum 1-4	115.14		7/10/2003	**OE**	**75mm APHE-T Fuze (Armed)**	12	S	2	75mm APHE-T Fuze P17-0180	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003	Demilled	Disposed off-site
P17-0208	737439.5	1012082.3	Sum 1-4	272.13		7/10/2003	ORS	Mini-Rocket	12	S	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
Q13-0006	737501.75	1011555.8	Sum 1-4	316.4		7/11/2003	ORS	2.36" Rocket Motor	0	NA	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
Q17-0003	737510.25	1012048.3	Sum 1-4	151.33		7/10/2003	ORS	Frag	12	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
S04-0010	737835	1010429.5	Sum 1-4	119.31		7/11/2003	ORS	Frag	12	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
S04-0022	737874.25	1010428	Sum 1-4	309.24		7/11/2003	ORS	Frag	12	W	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
S05-0009	737826.25	1010616.3	Sum 1-4	339.19		7/11/2003	ORS	2.36" Rocket Motor	18	N	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
S05-0024	737854.93	1010521.3	Sum 1-4	88.63		7/11/2003	ORS	2.36" Rocket Motor	4	E	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T03-0010	737956	1010360.3	Sum 1-4	74.9		7/11/2003	ORS	2.36" Rocket Motor	18	W	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
T03-0011	737956.75	1010339.8	Sum 1-4	585.4		7/11/2003	ORS	Frag	12	S	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T03-0015	737999	1010335.3	Sum 1-4	592.65		7/11/2003	ORS	2.36" Rocket Motor	20	SW	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
T04-0001	737875.65	1010382	Sum 1-4	106.94		7/11/2003	ORS	2.36" Rocket Motor	20	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
T04-0004	737884.75	1010466	Sum 1-4	207.72		7/11/2003	ORS	2.36" Rocket Motor	12	S	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T04-0015	737907.5	1010431.8	Sum 1-4	296.99		7/11/2003	ORS	Frag	6	E	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T04-0027	737952	1010446.3	Sum 1-4	49.38		7/11/2003	ORS	Frag	12	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T04-0045	737990.94	1010435.1	Sum 1-4	388.62		7/11/2003	ORS	Frag	8	W	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

WESTON Field Team	EOTI Field Team		Parsons Field Team
George Payne (SUXOS)	Carver Cobbins (TL)	MartyHolmes (TL)	Erich Stedman
Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of QE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
T04-0046	737996	1010482.5	Sum 1-4	37.67		7/11/2003	ORS	Frag	4	W	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T04-0048	737999.5	1010431.8	Sum 1-4	15.31		7/11/2003	ORS	Frag	12	S	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T05-0007	737897.25	1010516	Sum 1-4	198.77		7/11/2003	ORS	Frag	4	SW	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T05-0012	737917.25	1010564	Sum 1-4	101.85		7/11/2003	ORS	2.36" Rocket Motor	8	W	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T05-0034	737968.75	1010577	Sum 1-4	555.16		7/11/2003	ORS	2.36" Rocket Motor	18	W	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
T05-0035	737972.42	1010521.7	Sum 1-4	273.21		7/11/2003	ORS	Frag	10	N	4	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
T05-0043	737990.75	1010564	Sum 1-4	686.31		7/11/2003	ORS	2.36" Rocket Motor	18	S	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
U03-0006	738055.25	1010332.5	Sum 1-4	240.89		7/11/2003	ORS	2.36" Rocket Motor	20	SW	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
U04-0033	738081	1010457	Sum 1-4	493.81		7/11/2003	ORS	2.36" Rocket Motor	18	NW	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
U05-0008	738017.52	1010616	Sum 1-4	120.31		7/11/2003	ORS	2.36" Rocket Motor	12	E	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
U05-0008	738017.52	1010616	Sum 1-4	120.31		7/11/2003	ORS	2.36" Rocket Motor	12	W	2	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
U05-0022	738039	1010520.3	Sum 1-4	470.62		7/11/2003	ORS	2.36" Rocket Motor	12	W	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
U05-0035	738073.75	1010546.8	Sum 1-4	165.13		7/11/2003	ORS	2.36" Rocket Motor	12	W	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
U05-0050	738105.75	1010611.5	Sum 1-4	94.74		7/11/2003	ORS	Frag	30	W	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Poor	JW	7/16/2003		Disposed off-site
U05-0051	738108.25	1010541.5	Sum 1-4	304.04		7/11/2003	ORS	2.36" Rocket Motor	30	E	6	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Poor	JW	7/16/2003		Disposed off-site
V03-0006	738154	1010368.8	Sum 1-4	60.58		7/11/2003	Non-OE	Spike	12	NW	8	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
V03-0011	738177.75	1010348	Sum 1-4	185.57		7/11/2003	ORS	2.36" Rocket Motor	8	S	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
V04-0007	738149	1010486.3	Sum 1-4	523.17		7/11/2003	ORS	2.36" Rocket Motor	24	NE	10	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
V04-0028	738208.25	1010429	Sum 1-4	410.73		7/11/2003	ORS	2.36" Rocket Motor	12	E	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
V04-0028	738208.25	1010429	Sum 1-4	410.73		7/11/2003	Non-OE	Hot Rock	12	E	6	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
V05-0014	738164.25	1010533	Sum 1-4	392.38		7/11/2003	ORS	2.36" Rocket Motor	18	S	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
V05-0023	738194	1010545.3	Sum 1-4	119.29		7/11/2003	ORS	Frag	20	NE	1	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
V05-0030	738208.25	1010579	Sum 1-4	109.15		7/11/2003	Non-OE	Vehicle Part	18	NE	3	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Average	JW	7/16/2003		Disposed off-site
V05-0031	738209.5	1010537.3	Sum 1-4	289.89		7/11/2003	Non-OE	Pipe	0	NA	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
W03-0005	738284.25	1010309.8	Sum 1-4	285.3		7/11/2003	ORS	2.36" Rocket Motor	30	N	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Poor	JW	7/16/2003		Disposed off-site
Y03-0004	738535.75	1010316.8	Sum 1-4	576.81		7/11/2003	ORS	2.36" Rocket Motor	12	W	0	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
Z03-0006	738688	1010339.5	Sum 1-4	87.41		7/11/2003	ORS	Frag	12	NW	6	NA	7/15/2003	JK	Yes	FJH	7/16/2003	Good	JW	7/16/2003		Disposed off-site
M18-0126	737032.75	1012239.5	Sum 1-4	181.45		7/10/2003	**OE**	**4.2" Mortar Fuze M-2**	10	E	3	M-2 Mortar Fuze M18-0126	7/16/2003	JK	Yes	FJH	7/17/2003	Good	JW	7/17/2003	Demilled	Disposed off-site
M19-0090	737124.5	1012280.5	Sum 1-4	143.03		7/10/2003	ORS	Frag, Multiple Pieces	0	NA	3	NA	7/16/2003	JK	Yes	FJH	7/17/2003	Good	JW	7/17/2003		Disposed off-site
N19-0020	737206.75	1012290.5	Sum 1-4	327.92		7/10/2003	ORS	Frag	18	S	6	NA	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003		Disposed off-site
N19-0064	737160.75	1012320	Sum 1-4	497.1		7/10/2003	**OE**	**Unknown Bomb Fuze**	18	S	5	Various Fuzes N19-0064	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
N19-0064	737160.75	1012320	Sum 1-4	497.1		7/10/2003	**OE**	**Fuze Burster**	18	N	3	Various Fuzes N19-0064	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
N19-0064	737160.75	1012320	Sum 1-4	497.1		7/10/2003	**OE**	**20mm HE Projectile**	18	W	3	Various Fuzes N19-0064	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
N19-0084	737217.75	1012282.8	Sum 1-4	125.82		7/10/2003	**OE**	**M-51 Series (T-Bar) Fuze Armed**	18	W	8	M-51 Series Fuze N19-0084	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
O18-0137	737343.5	1012244	Sum 1-4	75.86		7/10/2003	ORS	20mm Projectile (Empty)	18	E	4	NA	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003		Disposed off-site
O19-0048	737320	1012321.3	Sum 1-4	569.96		7/10/2003	ORS	RAP Round Base Plug	18	S	6	NA	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003		Disposed off-site
P18-0037	737455.5	1012224.3	Sum 1-4	43.46		7/10/2003	**OE**	**Dispenser Fuze**	18	E	2	Dispenser Fuze P18-0037	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
P18-0120	737399.5	1012181.8	Sum 1-4	88		7/10/2003	**OE**	**57mm Projectile (Unfuzed)**	18	W	4	57mm Projo P18-0120	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
P18-0170	737426	1012232.8	Sum 1-4	580.11		7/10/2003	**OE**	**75mm HE Projectile (Unfuzed)**	12	W	3	75mm Projo P18-0170	7/16/2003	JK	Yes	FJH	7/17/2003	Good	JW	7/17/2003	Demilled	Disposed off-site
P19-0022	737400.25	1012308.3	Sum 1-4	193.18		7/10/2003	ORS	Frag	0	NA	3	NA	7/16/2003	JK	Yes	FJH	7/17/2003	Good	JW	7/17/2003		Disposed off-site
P19-0043	737486	1012318.5	Sum 1-4	175.77		7/10/2003	**OE**	**20mm HE Projectile**	36	S	2	20mm Projo P19-0043	7/16/2003	JK	Yes	FJH	7/17/2003	Poor	JW	7/17/2003	Demilled	Disposed off-site
Q18-0009	737546.25	1012192	Sum 1-4	384.38		7/10/2003	**OE**	**20mm HE Projectile**	18	W	3	20mm Projo Q18-0009	7/16/2003	JK	Yes	FJH	7/17/2003	Average	JW	7/17/2003	Demilled	Disposed off-site
E29-0019	736011.25	1013549.5	Sum 1-4	758.66		7/11/2003	Non-OE	Fence Pieces/Wire	0	NA	1	NA	7/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site

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Geophysical Dig Sheet and Target History

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Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

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Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results									Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)												
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie-C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
F24-0003	736209.25	1012997.8	Sum 1-4	127.52		7/11/2003	Non-OE	Nails & Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F24-0004	736209.75	1012990.5	Sum 1-4	129.16		7/11/2003	Non-OE	Nails & Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F25-0001	736188.75	1013091.3	Sum 1-4	166.39		7/11/2003	Non-OE	Hot Rock	20	S	2	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
F25-0005	736180.5	1013090.8	Sum 1-4	287.27		7/11/2003	ORS	12 Gauge Shotgun Shells	0	NA	0	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F25-0005	736180.5	1013090.8	Sum 1-4	287.27		7/11/2003	**OE**	**Bomb Fuze (Armed)**	18	S	8	Bomb Fuze F25-0005	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003	Demilled	Disposed off-site
F25-0014	736127	1013055	Sum 1-4	612.89		7/11/2003	ORS	Base Plate	6	NW	4	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F25-0022	736240	1013000.5	Sum 1-4	136.57		7/11/2003	Non-OE	Wire	20	N	2	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
F25-0024	736209.75	1013006.5	Sum 1-4	88.32		7/11/2003	Non-OE	Nails & Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F26-0003	736182.25	1013143.3	Sum 1-4	137.34		7/11/2003	ORS	76mm Projectile (Empty)	18	N	20	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
F26-0011	736178	1013156.5	Sum 1-4	72.05		7/11/2003	Non-OE	Flat Stock	18	W	3	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
F26-0018	736178.75	1013175.8	Sum 1-4	172.91		7/11/2003	Non-OE	Flat Stock	30	W	3	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Poor	RS	7/18/2003		Disposed off-site
F26-0019	736171.75	1013181.3	Sum 1-4	63.22		7/11/2003	NA	No Contact	NA	NA	NA	NA	11/17/2003	JK	Yes	FJH	7/19/2003	NA	RS	7/18/2003		
F29-0008	736228.5	1013579.3	Sum 1-4	62.24		7/11/2003	Non-OE	Fence Pieces/Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F29-0011	736215	1013567.5	Sum 1-4	244.02		7/11/2003	Non-OE	Fence Pieces/Wire	12	S	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
F29-0038	736192.75	1013558	Sum 1-4	180.47		7/11/2003	Non-OE	Fence Pieces/Wire	18	S	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
G24-0010	736292	1012955.5	Sum 1-4	126.13		7/11/2003	Non-OE	Vehicle Part/Plow Tooth	18	W	10	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Average	RS	7/18/2003		Disposed off-site
G25-0012	736302.75	1013011.3	Sum 1-4	84.97		7/11/2003	Non-OE	Horseshoe	0	NA	3	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
G26-0003	736272.75	1013212	Sum 1-4	113.46		7/11/2003	Non-OE	Plow Tooth	48	S	8	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Poor	RS	7/18/2003		Disposed off-site
G27-0004	736273.5	1013340.3	Sum 1-4	86.06		7/11/2003	ORS	M-51 Series (T-Bar) Fuze	30	S	3	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Poor	RS	7/18/2003		Disposed off-site
G29-0019	736307.5	1013553.8	Sum 1-4	423.75		7/11/2003	Non-OE	Fence Pieces/Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
G29-0020	736266.5	1013553.3	Sum 1-4	492.4		7/11/2003	Non-OE	Fence Pieces/Wire	0	NA	1	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
M17-0052	737085.5	1012005.3	Sum 1-4	52.85		7/10/2003	ORS	Bomb Fuze	8	E	8	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
M17-0079	737068.25	1012115	Sum 1-4	263.86		7/10/2003	ORS	Frag	0	NA	4	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
M17-0087	737038	1012118	Sum 1-4	121.66		7/10/2003	**OE**	**M-103 Fuze (Armed)**	0	NA	4	M-103 Fuze M17-0087	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003	Demilled	Disposed off-site
N17-0097	737157.5	1012016.8	Sum 1-4	169.38		7/10/2003	ORS	75mm Projectile Body Frag	12	W	3	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
N17-0164	737130.75	1012074	Sum 1-4	143.72		7/10/2003	ORS	Frag	12	S	2	NA	11/17/2003	JK	Yes	FJH	7/19/2003	Good	RS	7/18/2003		Disposed off-site
MM24-0005	740360	1012902	Sum 1-4	22.52	7/11/2003	7/19/2003	ORS	Frag	24	NW	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
MM26-0002	740283.75	1013247.3	Sum 1-4	48.11	7/11/2003	7/19/2003	ORS	Frag	12	E	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
MM27-0003	740360.25	1013269.5	Sum 1-4	18.03	7/11/2003	7/19/2003	ORS	Frag	0	NA	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
MM27-0004	740297.75	1013264	Sum 1-4	83.37	7/11/2003	7/19/2003	ORS	Frag	0	NA	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
MM27-0007	740363.75	1013352.8	Sum 1-4	68.9	7/11/2003	7/19/2003	ORS	Frag	0	NA	4	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
NN22-0006	740452.75	1012738.3	Sum 1-4	78.54	7/11/2003	7/19/2003	Non-OE	Pipe	10	W	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
NN22-0007	740441	1012747.3	Sum 1-4	94.68	7/11/2003	7/19/2003	ORS	Frag	12	W	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
NN23-0002	740420.25	1012868	Sum 1-4	46.55	7/11/2003	7/19/2003	Non-OE	Bolt	18	NW	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
NN23-0013	740438.5	1012805.5	Sum 1-4	26.37	7/11/2003	7/19/2003	ORS	Ftrag	18	W	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
NN24-0006	740458.5	1012886	Sum 1-4	75.77	7/11/2003	7/19/2003	ORS	Frag	12	S	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
NN24-0007	740427	1012876.5	Sum 1-4	205.3	7/11/2003	7/19/2003	Non-OE	Tractor Part	12	NE	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
NN27-0003	740447.25	1013353.8	Sum 1-4	34.12	7/11/2003	7/19/2003	ORS	Frag	12	N	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO20-0003	740528.25	1012436.3	Sum 1-4	31.73	7/11/2003	7/19/2003	Non-OE	Spike	16	S	5	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
OO21-0001	740520.75	1012549.3	Sum 1-4	235.81	7/11/2003	7/19/2003	ORS	Frag	30	E	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Poor	RS	7/22/2003		Disposed off-site
OO21-0004	740610.75	1012552.5	Sum 1-4	61.88	7/11/2003	7/19/2003	Non-OE	Rod	12	S	4	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO22-0005	740528.75	1012720	Sum 1-4	467.32	7/11/2003	7/19/2003	ORS	Frag	0	NA	0	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO23-0002	740554.75	1012867.5	Sum 1-4	46.22	7/11/2003	7/19/2003	ORS	Frag	12	E	6	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO23-0015	740557.5	1012755.5	Sum 1-4	55.56	7/11/2003	7/19/2003	Non-OE	Bolt	0	NA	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site

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	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
OO24-0002	740623.75	1012979.3	Sum 1-4	212.21	7/11/2003	7/19/2003	Non-OE	Stock	12	N	5	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO24-0005	740616.5	1012992.5	Sum 1-4	102.38	7/11/2003	7/19/2003	Non-OE	Tractor Part	12	S	6	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
OO26-0006	740577.25	1013241	Sum 1-4	133	7/11/2003	7/19/2003	Non-OE	Wire	12	NE	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP20-0008	740652.25	1012420.3	Sum 1-4	101.98	7/11/2003	7/19/2003	Non-OE	Tractor Part	12	NW	7	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP20-0010	740740.25	1012403	Sum 1-4	49.7	7/11/2003	7/19/2003	Non-OE	Ftat Steel	18	W	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
PP20-0012	740705.75	1012432.5	Sum 1-4	242.07	7/11/2003	7/19/2003	Non-OE	Hammerhead	20	W	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
PP20-0022	740641.5	1012450	Sum 1-4	45.25	7/11/2003	7/19/2003	Non-OE	Strrl Stock	12	N	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP21-0005	740681.25	1012520.3	Sum 1-4	57.31	7/11/2003	7/19/2003	Non-OE	Horseshoe	12	W	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP21-0008	740736	1012621.3	Sum 1-4	81.54	7/11/2003	7/19/2003	Non-OE	Bolt	24	SW	4	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP21-0009	740662.25	1012614.5	Sum 1-4	196.31	7/11/2003	7/19/2003	ORS	Frag	12	NW	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
PP21-0012	740671.25	1012580	Sum 1-4	1249.81	7/11/2003	7/19/2003	ORS	Frag	20	NE	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
PP21-0013	740740.25	1012596	Sum 1-4	62.53	7/11/2003	7/19/2003	ORS	76mm APHE Base Fuze	20	W	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP22-0003	740657.75	1012660	Sum 1-4	107.65	7/11/2003	7/19/2003	ORS	Frag	12	S	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP22-0009	740675	1012743.8	Sum 1-4	19.35	7/11/2003	7/19/2003	Non-OE	Spike	25	SE	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Poor	RS	7/22/2003		Disposed off-site
PP23-0001	740656.25	1012863	Sum 1-4	295.7	7/11/2003	7/19/2003	ORS	Frag	0	NA	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP23-0008	740678.75	1012795.3	Sum 1-4	56.47	7/11/2003	7/19/2003	Non-OE	Pitch Fork	18	E	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
PP24-0012	740659.75	1012921.3	Sum 1-4	29.12	7/11/2003	7/19/2003	NC	NA	NA	NA	NA	NA	7/22/2003	JK	Yes	FJH	7/22/2003	NA	RS	7/22/2003		
PP25-0004	740631	1013035	Sum 1-4	67.67	7/11/2003	7/19/2003	Non-OE	Wire	0	NA	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
PP28-0008	740738	1013394.8	Sum 1-4	87.74	7/11/2003	7/19/2003	Non-OE	Spike	12	W	5	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ19-0003	740793	1012360	Sum 1-4	26.87	7/11/2003	7/19/2003	Non-OE	Barb Wire	0	NA	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ20-0004	740770.61	1012418.6	Sum 1-4	778.17	7/11/2003	7/19/2003	Non-OE	Pipe	6	E	0	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ21-0004	740823.75	1012540.8	Sum 1-4	83.74	7/11/2003	7/19/2003	Non-OE	Hinge	8	S	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ21-0008	740829	1012524.5	Sum 1-4	73.79	7/11/2003	7/19/2003	Non-OE	S-Hook	0	NA	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ21-0013	740848.5	1012582.8	Sum 1-4	32.96	7/11/2003	7/19/2003	Non-OE	Bolt	0	NA	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ21-0015	740854.75	1012584.8	Sum 1-4	58.53	7/11/2003	7/19/2003	Non-OE	Spike	12	NE	3	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ22-0009	740812.5	1012707.3	Sum 1-4	112.05	7/11/2003	7/19/2003	**OE**	**M-103 Fuze**	50	SW	3	M-103 Fuze QQ22-0009	7/22/2003	JK	Yes	FJH	7/22/2003	Poor	RS	7/22/2003	Demilled	Disposed off-site
QQ23-0001	740760.5	1012861.5	Sum 1-4	58.77	7/11/2003	7/19/2003	Non-OE	Pipe 18" (QA Item)	0	NA	38	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ23-0012	740756	1012807.3	Sum 1-4	427.59	7/11/2003	7/19/2003	Non-OE	Pipe 7" (QC Item)	12	S	0	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ24-0006	740861.25	1012949.8	Sum 1-4	251.84	7/11/2003	7/19/2003	Non-OE	Tractor Part	0	NA	1	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ24-0013	740858.25	1012925.8	Sum 1-4	282.67	7/11/2003	7/19/2003	ORS	Frag	6	N	6	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Good	RS	7/22/2003		Disposed off-site
QQ25-0003	740761.25	1013019.5	Sum 1-4	55.85	7/11/2003	7/19/2003	Non-OE	Wire and Nails	24	NE	2	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
QQ25-0021	740773.6	1013110.6	Sum 1-4	49.37	7/11/2003	7/19/2003	Non-OE	Bolt	20	W	5	NA	7/22/2003	JK	Yes	FJH	7/22/2003	Average	RS	7/22/2003		Disposed off-site
G16-0015	736269.75	1011985	Sum 1-4	68.36	7/2/2003	7/24/2003	Non-OE	Rust Deposit	0	NA	6	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
G16-0028	736273.5	1011981	Sum 1-4	14.98	7/2/2003	7/24/2003	Non-OE	Rust Deposit	0	NA	14	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
G17-0038	736285.75	1012109	Sum 1-4	17.89	7/2/2003	7/24/2003	Non-OE	Flat Stock	4	E	6	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
G17-0040	736287.5	1012027	Sum 1-4	37.88	7/2/2003	7/24/2003	Non-OE	Rust Deposit	0	NA	8	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H17-0010	736438	1012002.3	Sum 1-4	29.11	7/2/2003	7/24/2003	Non-OE	Round Stock	12	W	6	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL12-0044	740167.25	1011423.5	Sum 1-4	66.05	7/9/2003	7/24/2003	Non-OE	Rust Deposit	0	NA	7	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL12-0069	740204.72	1011458.2	Sum 1-4	38.9	7/9/2003	7/24/2003	Non-OE	Crank Handle	6	N	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL12-0080	740248.5	1011444	Sum 1-4	24.32	7/9/2003	7/24/2003	Non-OE	Rake	18	E	12	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
LL13-0071	740224.75	1011524	Sum 1-4	1217.18	7/9/2003	7/24/2003	Non-OE	Engineer Stake	30	W	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
MM10-0003	740271.16	1011235.6	Sum 1-4	1307.03	7/9/2003	7/24/2003	Non-OE	Explosive Limit Sign	0	NA	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM10-0016	740317.9	1011248.5	Sum 1-4	98.5	7/9/2003	7/24/2003	Non-OE	Wire	12	S	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM11-0013	740277.75	1011278.5	Sum 1-4	276.46	7/9/2003	7/24/2003	Non-OE	Wire and Metal Bar	12	N	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

WESTON Field Team	EOTI Field Team		Parsons Field Team
George Payne (SUXOS)	Carver Cobbins (TL)	MartyHolmes (TL)	Erich Stedman
Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
MM11-0020	740296.25	1011256.8	Sum 1-4	101.54	7/9/2003	7/24/2003	Non-OE	Wire	0	NA	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM12-0005	740265.75	1011427.8	Sum 1-4	156.21	7/9/2003	7/24/2003	Non-OE	Bolt	12	NE	0	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM13-0003	740273	1011583.5	Sum 1-4	5152.79	7/9/2003	7/24/2003	Non-OE	Metal Sign	8	E	0	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0012	740272.82	1011744.1	Sum 1-4	42.85	7/9/2003	7/24/2003	Non-OE	Nail	12	E	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0024	740297	1011736.5	Sum 1-4	142.58	7/9/2003	7/24/2003	Non-OE	Wire	0	NA	0	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
G16-0032	736283.25	1011955.3	Sum 1-4	48.32	7/2/2003	7/24/2003	ORS	Frag	12	W	10	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
G17-0005	736257.5	1012005.8	Sum 1-4	151.14	7/2/2003	7/24/2003	ORS	Frag	24	W	4	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
H16-0001	736379.5	1011945	Sum 1-4	33.73	7/2/2003	7/24/2003	ORS	Frag	12	W	4	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H16-0012	736421.75	1011879.3	Sum 1-4	77.75	7/2/2003	7/24/2003	ORS	Frag	12	E	2	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H16-0019	736461	1011884.3	Sum 1-4	54.63	7/2/2003	7/24/2003	ORS	Frag	12	W	12	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H16-0022	736492.75	1011972.8	Sum 1-4	323.79	7/2/2003	7/24/2003	ORS	Frag	16	W	4	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
H17-0013	736443.25	1012115.8	Sum 1-4	27.9	7/2/2003	7/24/2003	ORS	Frag	6	SE	6	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H17-0018	736458	1012090	Sum 1-4	141.13	7/2/2003	7/24/2003	ORS	Frag	12	SE	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
H17-0028	736493	1012099	Sum 1-4	84.12	7/2/2003	7/24/2003	ORS	Frag	12	N	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL11-0036	740203.25	1011304.8	Sum 1-4	540.47	7/9/2003	7/24/2003	ORS	Frag	8	S	4	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL11-0057	740221.25	1011299.3	Sum 1-4	76.9	7/9/2003	7/24/2003	ORS	Fuze Safety Ring	0	NA	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL14-0023	740206.71	1011640.3	Sum 1-4	31.37	7/9/2003	7/24/2003	ORS	.50 Caliber Bullet	18	W	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
LL14-0024	740207.25	1011629.8	Sum 1-4	569.87	7/9/2003	7/24/2003	ORS	Frag	12	SW	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
LL14-0033	740222.5	1011651.5	Sum 1-4	55.21	7/9/2003	7/24/2003	ORS	Frag	12	E	2	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0001	740250.25	1011674	Sum 1-4	109.44	7/9/2003	7/24/2003	ORS	Frag	12	E	2	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0008	740261.5	1011634.8	Sum 1-4	248.49	7/9/2003	7/24/2003	ORS	105mm Base Plate	18	E	1	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
MM14-0027	740305.25	1011744.8	Sum 1-4	322.1	7/9/2003	7/24/2003	ORS	Frag	6	E	3	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0031	740308	1011690.3	Sum 1-4	220.47	7/9/2003	7/24/2003	ORS	Frag	12	E	2	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0042	740320.75	1011671.8	Sum 1-4	226.28	7/9/2003	7/24/2003	ORS	Frag	0	NA	0	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0042	740320.75	1011671.8	Sum 1-4	226.28	7/9/2003	7/24/2003	ORS	Frag	0	NA	0	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0042	740320.75	1011671.8	Sum 1-4	226.28	7/9/2003	7/24/2003	ORS	Frag	12	E	4	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
MM14-0045	740323.75	1011697	Sum 1-4	198.87	7/9/2003	7/24/2003	ORS	Frag	12	S	8	NA	7/24/2003	JK	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
HH37-0010	739744.75	1014518.3	Sum 1-4	14.92	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
HH37-0019	739742.75	1014616.8	Sum 1-4	32.96	7/18/2003	7/23/2003	ORS	Frag	30	E	8	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
HH38-0052	739634	1014710.3	Sum 1-4	25.29	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
HH38-0071	739709.25	1014626.8	Sum 1-4	21.68	7/18/2003	7/23/2003	ORS	Frag	18"	W	8	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
HH38-0076	739625.75	1014670.8	Sum 1-4	19.21	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
HH38-0077	739738.5	1014667.8	Sum 1-4	263.92	7/18/2003	7/23/2003	ORS	Frag	0	NA	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
II37-0010	739797.75	1014568.8	Sum 1-4	14.83	7/18/2003	7/23/2003	Non-OE	Wire	12	SW	16	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
II37-0018	739859.25	1014592.5	Sum 1-4	36.87	7/18/2003	7/23/2003	ORS	Frag	18	NW	4	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
II37-0019	739812	1014604	Sum 1-4	99.03	7/18/2003	7/23/2003	ORS	Frag	24	NE	4	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
II37-0024	739808.25	1014595	Sum 1-4	27.63	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
II37-0038	739823.75	1014518.3	Sum 1-4	19.77	7/18/2003	7/23/2003	ORS	Frag	6	NE	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
II37-0041	739767.25	1014520	Sum 1-4	14.14	7/18/2003	7/23/2003	Non-OE	Nail	30	W	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
II37-0043	739797	1014560	Sum 1-4	19.04	7/18/2003	7/23/2003	Non-OE	Wire	24	SE	12	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
II38-0002	739873.25	1014746.5	Sum 1-4	15.37	7/18/2003	7/23/2003	ORS	Frag	36	W	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
II38-0049	739812.75	1014641	Sum 1-4	23.97	7/18/2003	7/23/2003	**OE**	**76mm APHE Base Fuze**	12	W	6	Base Fuze II38-0049	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
II38-0078	739802	1014664.8	Sum 1-4	65.5	7/18/2003	7/23/2003	Non-OE	Pipe USACE QA Item # R	30	SW	36	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
II39-0006	739837.5	1014846.5	Sum 1-4	49.65	7/18/2003	7/23/2003	ORS	Frag	24	s	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

WESTON Field Team	EOTI Field Team		Parsons Field Team
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Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results									Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
										Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
JJ36-0001	739969.5	1014455	Sum 1-4	29.76	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
JJ36-0008	739877	1014499	Sum 1-4	96.34	7/18/2003	7/23/2003	ORS	Frag	12	W	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
JJ36-0009	739904.25	1014493	Sum 1-4	81.69	7/18/2003	7/23/2003	ORS	Frag	18	W	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
JJ37-0002	739930.25	1014575.5	Sum 1-4	38.9	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
JJ37-0012	739943.5	1014603	Sum 1-4	31.6	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
JJ37-0013	739889	1014608	Sum 1-4	21.33	7/18/2003	7/23/2003	ORS	Frag	12	E	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
JJ37-0028	739908.75	1014617	Sum 1-4	38.25	7/18/2003	7/23/2003	ORS	Frag	30	W	12	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Poor	RS	7/24/2003		Disposed off-site
JJ38-0002	739882.75	1014740.5	Sum 1-4	21.3	7/18/2003	7/23/2003	ORS	Frag	12	S	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
JJ38-0014	739956.75	1014719.5	Sum 1-4	31.62	7/18/2003	7/23/2003	Non-OE	Bridle	24	E	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
JJ38-0019	739928.5	1014635.3	Sum 1-4	20.33	7/18/2003	7/23/2003	Non-OE	Scrap	16	E	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
JJ39-0003	739906.25	1014779.5	Sum 1-4	80.05	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/24/2003	TM	Yes	FJH	7/28/2003	NA	RS	7/24/2003		
KK36-0004	740026.25	1014480.3	Sum 1-4	28.85	7/18/2003	7/23/2003	Non-OE	Nail	18	W	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Average	RS	7/24/2003		Disposed off-site
KK38-0001	740056	1014633	Sum 1-4	73.67	7/18/2003	7/23/2003	ORS	Frag	12	E	6	NA	7/24/2003	TM	Yes	FJH	7/28/2003	Good	RS	7/24/2003		Disposed off-site
HH39-0012	739708	1014852.8	Sum 1-4	22.85	7/18/2003	7/23/2003	Non-OE	Hot Rock	18	S	10	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
II38-0001	739805.75	1014746.3	Sum 1-4	14.76	7/18/2003	7/23/2003	Non-OE	Hot Rock	24	S	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
II38-0015	739811	1014736.8	Sum 1-4	26.22	7/18/2003	7/23/2003	Non-OE	Hot Rock	18	S	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
II39-0005	739822.25	1014845.3	Sum 1-4	16.49	7/18/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
II40-0001	739771.5	1014881	Sum 1-4	25.38	7/18/2003	7/23/2003	ORS	Frag	36	NA	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Poor	RS	7/28/2003		Disposed off-site
KK33-0008	740034.25	1014062	Sum 1-4	68.87	7/17/2003	7/23/2003	Non-OE	Wire	18	NW	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
KK33-0013	740074.25	1014118.3	Sum 1-4	67.66	7/17/2003	7/23/2003	Non-OE	Spike	12	N	18	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK33-0019	740093.75	1014087.3	Sum 1-4	406.59	7/17/2003	7/23/2003	ORS	Frag	12	W	10	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK33-0022	740102.75	1014070.8	Sum 1-4	539.92	7/17/2003	7/23/2003	Non-OE	Pipe (Weston Seed)	0	NA	0	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ33-0015	739923	1014055.8	Sum 1-4	164.16	7/17/2003	7/23/2003	ORS	Frag	0	NA	12	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ33-0023	739947.75	1014081	Sum 1-4	59.28	7/17/2003	7/23/2003	ORS	Frag	8	E	4	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ33-0001	739878.25	1014094	Sum 1-4	80.56	7/17/2003	7/23/2003	ORS	Frag	12	S	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
II33-0013	739810.25	1014080.5	Sum 1-4	757.19	7/17/2003	7/23/2003	Non-OE	Pipe (Weston Seed)	18	N	0	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
II33-0021	739823.25	1014087.3	Sum 1-4	129.46	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
II33-0027	739835.5	1014085	Sum 1-4	54.38	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ34-0007	739891	1014137.8	Sum 1-4	225.01	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ34-0009	739900.75	1014203.3	Sum 1-4	230.16	7/17/2003	7/23/2003	ORS	Frag	12	E	1	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ34-0022	739976.5	1014172.3	Sum 1-4	297.08	7/17/2003	7/23/2003	Non-OE	Farm Equipment	0	NA	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
II33-0008	739788.25	1014099.3	Sum 1-4	84.73	7/17/2003	7/23/2003	NA	USACE Seed Item (Not Dug)	NA	NA	NA	NA	7/28/2003	TM	**NO**	FJH	7/29/2003	NA	RS	7/28/2003		Disposed off-site
HH33-0012	739648.5	1014113.8	Sum 1-4	444.91	7/17/2003	7/23/2003	ORS	Frag	12	S	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
HH34-0005	739660.25	1014185.5	Sum 1-4	148.44	7/17/2003	7/23/2003	**OE**	**M-103 Fuze**	18	S	3	M-103 Fuze HH34-0005	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003	Demilled	Disposed off-site
HH34-0008	739674.5	1014145.3	Sum 1-4	619.01	7/17/2003	7/23/2003	ORS	Frag	18	E	4	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
HH34-0017	739719.02	1014135.3	Sum 1-4	264.71	7/17/2003	7/23/2003	ORS	Frag	24	N	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
GG34-0017	739604.25	1014141.8	Sum 1-4	302.43	7/17/2003	7/23/2003	Non-OE	Farm Equipment	18	E	12	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
GG33-0030	739579.75	1014041.5	Sum 1-4	303.53	7/17/2003	7/23/2003	ORS	Frag	18	S	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
GG33-0035	739596.75	1014046.5	Sum 1-4	205.59	7/17/2003	7/23/2003	ORS	Frag	0	NA	6	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
GG33-0037	739601.25	1014094.5	Sum 1-4	70.16	7/17/2003	7/23/2003	Non-OE	Farm Equipment	18	S	8	NA	7/28/2003	TM	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
II16-0102	739843.5	1011906.8	Sum 1-4	692.42	7/9/2003	7/24/2003	Non-OE	Plow Tooth	6	W	1	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
II16-0102	739843.5	1011906.8	Sum 1-4	692.42	7/9/2003	7/24/2003	Non-OE	Plow Bar	6	SW	1	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ14-0143	739993.5	1011683.8	Sum 1-4	191.85	7/9/2003	7/24/2003	ORS	Frag	12	E	2	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ15-0213	739974.75	1011755.8	Sum 1-4	65.1	7/9/2003	7/24/2003	ORS	155mm Projectile Lifting Lug	12	N	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

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Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
JJ15-0213	739974.75	1011755.8	Sum 1-4	65.1	7/9/2003	7/24/2003	Non-OE	Bolt	8	S	3	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ15-0217	739975.5	1011816.8	Sum 1-4	109.77	7/9/2003	7/24/2003	Non-OE	Wire	12	W	2	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ15-0265	740000	1011845.8	Sum 1-4	600.91	7/9/2003	7/24/2003	ORS	Frag	0	NA	3	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ16-0085	739906.25	1011890.3	Sum 1-4	162.24	7/9/2003	7/24/2003	ORS	.50 Caliber Ball Round	6	W	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ16-0085	739906.25	1011890.3	Sum 1-4	162.24	7/9/2003	7/24/2003	Non-OE	Tractor Plate	30	W	0	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Poor	RS	7/28/2003		Disposed off-site
JJ16-0110	739915.5	1011881.5	Sum 1-4	646.15	7/9/2003	7/24/2003	ORS	Frag	0	NA	4	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ16-0138	739928.25	1011898.8	Sum 1-4	266.68	7/9/2003	7/24/2003	Non-OE	Wire	12	NE	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ16-0138	739928.25	1011898.8	Sum 1-4	266.68	7/9/2003	7/24/2003	ORS	Mine, AP Bouncing Betty (Empty)	20	N	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
JJ16-0195	739959.25	1011925.5	Sum 1-4	1587.71	7/9/2003	7/24/2003	Non-OE	Chain 30 inch	4	S	2	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
JJ16-0201	739962.25	1011903.5	Sum 1-4	159.13	7/9/2003	7/24/2003	ORS	Frag	12	W	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK14-0184	740104.5	1011670.8	Sum 1-4	64.07	7/9/2003	7/24/2003	ORS	Frag	18	W	3	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
KK15-0029	740014.25	1011812.3	Sum 1-4	471.98	7/9/2003	7/24/2003	ORS	Frag	6	W	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK15-0044	740025	1011785.3	Sum 1-4	151.01	7/9/2003	7/24/2003	ORS	Mortar Frag	12	SW	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK16-0045	740042	1011985	Sum 1-4	290.08	7/9/2003	7/24/2003	ORS	Frag	10	E	4	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
KK16-0066	740068.5	1011898	Sum 1-4	429.51	7/9/2003	7/24/2003	Non-OE	Plow Tooth	6	N	4	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL13-0052	740184	1011575.8	Sum 1-4	6403.79	7/9/2003	7/24/2003	Non-OE	Sign	0	NA	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL14-0007	740142.25	1011704.8	Sum 1-4	131.65	7/9/2003	7/24/2003	ORS	Frag	6	N	4	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL14-0020	740189.75	1011722	Sum 1-4	191.29	7/9/2003	7/24/2003	ORS	Frag	6	E	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL15-0029	740199.5	1011846.3	Sum 1-4	1346.44	7/9/2003	7/24/2003	Non-OE	Tractor Blade	24	S	3	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
LL15-0029	740199.5	1011846.3	Sum 1-4	1346.44	7/9/2003	7/24/2003	Non-OE	Wire	0	NA	1	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL16-0005	740134.25	1011926	Sum 1-4	100.38	7/9/2003	7/24/2003	NA	USACE Seed Item (Not Dug)	NA	NA	NA	NA	7/28/2003	JK	**NO**	FJH	7/29/2003	NA	RS	7/28/2003		Disposed off-site
LL16-0014	740147	1011973.8	Sum 1-4	48.98	7/9/2003	7/24/2003	ORS	Frag	6	N	6	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL16-0032	740174.25	1011935.5	Sum 1-4	315.15	7/9/2003	7/24/2003	ORS	75mm Smoke Cartridge	6	S	4	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL16-0079	740235	1011955.3	Sum 1-4	99.63	7/9/2003	7/24/2003	Non-OE	Round Stock	36	S	8	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Poor	RS	7/28/2003		Disposed off-site
LL16-0079	740235	1011955.3	Sum 1-4	99.63	7/9/2003	7/24/2003	Non-OE	Wire	6	N	14	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
LL16-0079	740235	1011955.3	Sum 1-4	99.63	7/9/2003	7/24/2003	Non-OE	Wire	18	S	9	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Average	RS	7/28/2003		Disposed off-site
DD42-0007	739215	1015135	Sum 1-4	16.68	7/18/2003	7/24/2003	Non-OE	Hot Rock	0	NA	1	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
EE41-0008	739256.25	1015075.8	Sum 1-4	376.49	7/18/2003	7/24/2003	ORS	Frag	0	NA	1	NA	7/28/2003	JK	Yes	FJH	7/29/2003	Good	RS	7/28/2003		Disposed off-site
BB42-0003	738991.5	1015223.3	Sum 1-4	54.28	7/18/2003	7/23/2003	Non-OE	Handle	8	W	4	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
CC41-0005	739050	1015074.3	Sum 1-4	48.36	7/18/2003	7/23/2003	Non-OE	Horseshoe	6	N	6	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
CC42-0003	739094.25	1015131.5	Sum 1-4	16.86	7/18/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	12	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
CC42-0006	739040.5	1015203.3	Sum 1-4	18.47	7/18/2003	7/23/2003	Non-OE	Hot Rock	24	SW	1	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
CC42-0007	739050.5	1015159	Sum 1-4	38.25	7/18/2003	7/23/2003	Non-OE	Bolt	10	E	3	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
CC42-0009	739010.5	1015162.3	Sum 1-4	45.42	7/18/2003	7/23/2003	Non-OE	Bolt	20	E	2	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD41-0003	739175.25	1015095.8	Sum 1-4	63.6	7/18/2003	7/23/2003	ORS	76mm APHE Base Fuze (Empty)	12	E	2	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD41-0005	739128.25	1015104.5	Sum 1-4	66.14	7/18/2003	7/23/2003	NA	USACE Seed Item	NA	NA	NA	NA	7/29/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
DD41-0006	739130.75	1015111.5	Sum 1-4	18.95	7/18/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/29/2003	JK	Yes	FJH	7/30/2003	NA	RS	7/30/2003		
DD41-0007	739132.5	1015080.8	Sum 1-4	25.39	7/18/2003	7/23/2003	ORS	Frag	18	N	2	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD41-0018	739185.75	1015086	Sum 1-4	251.67	7/18/2003	7/23/2003	Non-OE	Threaded Rod	8	E	2	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD42-0001	739147	1015146.8	Sum 1-4	619.25	7/18/2003	7/23/2003	Non-OE	Pipe 6" Weston Seed	3	SW	0	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD42-0005	739157.5	1015164.5	Sum 1-4	14.25	7/18/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	24	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
F14-0037	736181.25	1011701.5	Sum 1-4	175.44	7/1/2003	7/23/2003	Non-OE	Pipe 18" Seed	30	W	18	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
F14-0041	736188.55	1011709.9	Sum 1-4	154.73	7/1/2003	7/23/2003	Non-OE	Pipe 18" Seed	30	E	12	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
F14-0052	736210.61	1011701.6	Sum 1-4	47.69	7/1/2003	7/23/2003	NA	USACE Seed Item	NA	NA	NA	NA	7/29/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site

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Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
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Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie-C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
F15-0038	736208	1011755.3	Sum 1-4	73.7	7/1/2003	7/23/2003	NA	USACE Seed Item	NA	NA	NA	NA	7/29/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
G14-0022	736250.87	1011713.6	Sum 1-4	43.35	7/2/2003	7/23/2003	ORS	76mm APHE Projectile	30	W	20	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
G14-0022	736250.87	1011713.6	Sum 1-4	43.35	7/2/2003	7/23/2003	Non-OE	Hot Rock	25	W	18	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
G14-0022	736250.87	1011713.6	Sum 1-4	43.35	7/2/2003	7/23/2003	ORS	Fuze Pieces	22	W	15	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
I15-0051	736564.25	1011869.8	Sum 1-4	39.45	7/2/2003	7/23/2003	ORS	Frag	10	W	6	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I15-0052	736564.75	1011857.8	Sum 1-4	260.38	7/2/2003	7/23/2003	ORS	Frag	18	N	2	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I15-0056	736572	1011852.3	Sum 1-4	56.57	7/2/2003	7/23/2003	ORS	Frag	12	W	4	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I15-0067	736596.25	1011874.5	Sum 1-4	135.51	7/2/2003	7/23/2003	ORS	Frag	20	S	4	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I16-0001	736501	1011985.5	Sum 1-4	30.26	7/2/2003	7/23/2003	ORS	Frag	12	SE	5	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I16-0002	736521.75	1011932	Sum 1-4	19.6	7/2/2003	7/23/2003	**OE**	**Base Fuze, 76mm APHE**	0	NA	6	Base Fuze I16-0002	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
I16-0006	736531	1011935.5	Sum 1-4	38.04	7/2/2003	7/23/2003	**OE**	**Base Fuze, 76mm APHE**	0	NA	8	Base Fuze I16-0006	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
I16-0010	736546.25	1011889.8	Sum 1-4	61.74	7/2/2003	7/23/2003	Non-OE	Hot Rock	18	W	10	NA	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I16-0047	736614.25	1011876.5	Sum 1-4	227.91	7/2/2003	7/23/2003	**OE**	**M-103 Fuze**	20	S	3	M-103 Fuze I16-0047	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
KK15-0085	740069.75	1011824.5	Sum 1-4	154.72	7/9/2003	7/23/2003	**OE**	**M-103 Fuze**	12	NW	8	M-103 Fuze KK15-0085	7/29/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
DD32-0001	739221.25	1013992	868.16	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	S	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD32-0001	739221.25	1013992	868.16	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	E	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD33-0021	739230.75	1014090.8	49.23	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	6	S	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD33-0032	739241	1014103.5	88.09	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	18	S	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
DD33-0032	739241	1014103.5	88.09	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	24	S	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
DD34-0002	739128.75	1014191.3	95.08	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	36	W	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
DD34-0002	739128.75	1014191.3	95.08	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	36	E	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
DD34-0002	739128.75	1014191.3	95.08	Sum 1-4	7/17/2003	7/23/2003	ORS	36	36	SW	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
DD34-0002	739128.75	1014191.3	95.08	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	18	NW	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
DD34-0002	739128.75	1014191.3	95.08	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	30	S	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
EE33-0011	739265.75	1014063.8	265.64	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	S	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0016	739275	1014085.3	36.34	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	E	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0026	739282	1014053.8	474.21	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0030	739285.25	1014022.8	216.46	Sum 1-4	7/17/2003	7/23/2003	Non-OE	Farm Equipment	24	SE	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
EE33-0036	739293.25	1014041	469.87	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	W	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
FF32-0010	739407	1013952.3	112.44	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
FF32-0012	739418.75	1013985.3	85.19	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	36	SW	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
FF32-0014	739435.75	1013968.5	332.26	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	6	N	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
FF33-0012	739412.25	1014008.5	198.46	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	18	S	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
FF33-0012	739412.25	1014008.5	198.46	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	18	N	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
FF33-0018	739432.25	1014105.8	392.27	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
GG32-0005	739550.5	1014000	308.92	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
GG32-0012	739586.25	1013986	118.87	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
GG33-0011	739527.5	1014002.8	131.63	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	6	NE	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
GG33-0011	739527.5	1014002.8	131.63	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	6	N	6	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
GG34-0002	739510	1014162.5	80.87	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
II32-0011	739864.5	1013970.8	118.59	Sum 1-4	7/17/2003	7/23/2003	Non-OE	Barb Wire	12	NW	1	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
II32-0013	739873.5	1013961.5	176.58	Sum 1-4	7/17/2003	7/23/2003	Non-OE	Barb Wire	12	S	3	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
II33-0026	739834.75	1014003.3	2308.14	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	12	S	12	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
WESTON Survey Tech: Steve Kirejczyk

WESTON Field Team	EOTI Field Team		Parsons Field Team
George Payne (SUXOS)	Carver Cobbins (TL)	MartyHolmes (TL)	Erich Stedman
Joe Kendall (TL)	Don Koch (TL)	Dan Dorrell	Jae Yun
Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
JJ32-0006	739978.75	1013995	206.34	Sum 1-4	7/17/2003	7/23/2003	ORS	Frag	0	NA	8	NA	7/29/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
D17-0007	735996.75	1012077.8	Sum 1-4	16.97	7/1/2003	7/23/2003	Non-OE	Scrap	18	E	7	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
DD32-0005	739235.25	1013992.5	Sum 1-4	114.91	7/17/2003	7/23/2003	**OE**	**57mm Projectile (Unfuzed)**	0	NA	8	57mm Projo DD32-0005	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Disposed of by Detonation	Disposed off-site
DD34-0031	739239.25	1014172	Sum 1-4	70.19	7/17/2003	7/23/2003	ORS	Frag	12	E	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
DD34-0031	739239.25	1014172	Sum 1-4	70.19	7/17/2003	7/23/2003	**OE**	**76mm APHE Base Fuze**	36	NE	4	76mm APHE Fuze DD34-0031	7/30/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003	Demilled	Disposed off-site
DD34-0031	739239.25	1014172	Sum 1-4	70.19	7/17/2003	7/23/2003	ORS	Frag	36	S	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
E14-0005	736114.5	1011717.8	Sum 1-4	34.48	7/1/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	10	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E16-0008	736011.25	1011967	Sum 1-4	219.7	7/1/2003	7/23/2003	Non-OE	Horseshoe	12	S	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E16-0035	736071.75	1011995.5	Sum 1-4	20.78	7/1/2003	7/23/2003	Non-OE	Banding Wire	18	W	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
E16-0050	736118.75	1011898.5	Sum 1-4	53.13	7/1/2003	7/23/2003	Non-OE	Hoe	24	SW	1	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
E17-0004	736004.25	1012002.3	Sum 1-4	186.67	7/1/2003	7/23/2003	Non-OE	Wire	12	W	0	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0008	736006.5	1012079.8	Sum 1-4	54.08	7/1/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/30/2003	TM	Yes	FJH	7/30/2003	NA	RS	7/30/2003		
E17-0020	736015.5	1012115.8	Sum 1-4	193.59	7/1/2003	7/23/2003	Non-OE	Wire	12	W	8	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0021	736015.75	1012054.5	Sum 1-4	51.04	7/1/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	10	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0022	736016	1012101.3	Sum 1-4	133.75	7/1/2003	7/23/2003	Non-OE	Shotgun Shell	0	NA	0	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0022	736016	1012101.3	Sum 1-4	133.75	7/1/2003	7/23/2003	Non-OE	Wire/Rust	24	S	8	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
E17-0029	736021.5	1012064	Sum 1-4	29.03	7/1/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	10	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0031	736025	1012055.3	Sum 1-4	66.16	7/1/2003	7/23/2003	Non-OE	Wire	16	W	0	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
E17-0036	736029.75	1012103.3	Sum 1-4	132.97	7/1/2003	7/23/2003	ORS	Frag	24	E	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
E17-0040	736036	1012041.3	Sum 1-4	218.26	7/1/2003	7/23/2003	Non-OE	Cheeze Wiz Can	12	E	0	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
E17-0069	736101	1012002	Sum 1-4	26.2	7/1/2003	7/23/2003	NC	NA	NA	NA	NA	NA	7/30/2003	JK	Yes	FJH	7/30/2003	NA	RS	7/30/2003		
E17-0079	736111.5	1012102.8	Sum 1-4	223.98	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
E18-0024	736068	1012125.8	Sum 1-4	128.38	7/1/2003	7/23/2003	Non-OE	Fence Wire	6	S	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0032	739290	1014119.3	Sum 1-4	67.89	7/17/2003	7/23/2003	ORS	Fuze Body	8	NE	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0046	739312.75	1014064	Sum 1-4	55.71	7/17/2003	7/23/2003	ORS	Frag	6	NA	8	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE33-0046	739312.75	1014064	Sum 1-4	55.71	7/17/2003	7/23/2003	ORS	Frag	40	S	8	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
EE33-0061	739341.25	1014115	Sum 1-4	55.84	7/17/2003	7/23/2003	ORS	Frag	24	E	8	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
EE33-0061	739341.25	1014115	Sum 1-4	55.84	7/17/2003	7/23/2003	ORS	Frag	30	W	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
EE33-0061	739341.25	1014115	Sum 1-4	55.84	7/17/2003	7/23/2003	ORS	Frag	18	SE	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
EE33-0069	739356.25	1014113.5	Sum 1-4	65.72	7/17/2003	7/23/2003	ORS	Frag	30	NW	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
EE34-0002	739252	1014163	Sum 1-4	289.38	7/17/2003	7/23/2003	ORS	Frag	18	SE	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
EE34-0002	739252	1014163	Sum 1-4	289.38	7/17/2003	7/23/2003	ORS	Frag	6	NW	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE34-0006	739258.34	1014172.8	Sum 1-4	71.78	7/17/2003	7/23/2003	ORS	Frag	6	E	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE34-0024	739314.5	1014143.3	Sum 1-4	137.88	7/17/2003	7/23/2003	ORS	40mm Projectile (Empty)	12	E	6	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE34-0026	739332.5	1014171	Sum 1-4	72.58	7/17/2003	7/23/2003	ORS	Frag	12	NE	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
EE34-0027	739334.5	1014161.8	Sum 1-4	73.15	7/17/2003	7/23/2003	ORS	Frag	18	S	4	NA	7/30/2003	TM	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
F15-0002	736126.25	1011853	Sum 1-4	61.7	7/1/2003	7/23/2003	ORS	76mm APHE Nose	12	W	12	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
F15-0003	736129.75	1011837.3	Sum 1-4	39.56	7/1/2003	7/23/2003	Non-OE	Tractor Part	20	W	8	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
F15-0017	736172.75	1011847.3	Sum 1-4	24.88	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
F15-0048	736227.83	1011852.2	Sum 1-4	51.53	7/1/2003	7/23/2003	ORS	Frag	12	W	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
F15-0059	736239.25	1011777.3	Sum 1-4	168.44	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	TM	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
F15-0060	736242.75	1011817.8	Sum 1-4	50.14	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	TM	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
F16-0006	736142.75	1011946.3	Sum 1-4	22.5	7/1/2003	7/23/2003	ORS	Frag	20	W	3	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
F16-0018	736173.75	1011955.8	Sum 1-4	82.54	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site

Table F-1
Geophysical Dig Sheet and Target History

Project Name: Open Detonation Grounds
Project Location: Seneca Army Depot, Romulus NY
Date: MASTER DIG SHEET
Coordinate System: NY State Plane Central NAD 83
Survey Area ID:
Sector: NA Grid: NA
Field Book ID: NA

Geophysical Contractor: Parsons Engineering
Project Geophysicist: Bart Hoekstra
Site Geophysicist: John Baptiste

WESTON UXO Safety: Frank Henderson
WESTON Project Engineer: Steffanie Warriner
WESTON Geophysicist: John Williams/Ryan Steigerwalt
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Brian Ditsch (TL)	Thomas Meeks	Mike Turner	Peter Anderson
	Frank Montes		Greg Nelson
	Shawn Quigly		Melissa Nugent

	Original Survey					Reacquisition w/RTK	Dig Results								Post-Dig UXO QC Results			Post-Dig Geophysical QC			Status of OE	
									Offset		Depth (in)											
Unique Target ID	Easting Coord. (ft)	Northing Coord. (ft)	Channel ID (ie- C1 ….C4, top sensor, gradient, etc)	Amplitude Response (mV)	Date	Date	Anomaly Type	Comments	Distance (in)	Direction (N, NE, etc.)	Top of Item	Digital Photo Filename	Date	Team Leader Initials	Excavation Hole Cleared?	UXO QC Spec. Initials	Date	Agreement between Dig Results & Geophysical Data? (Good, Average, Poor, Poor)	Geophysicist QC Initials	Date	Current Status	Final Disposition
F17-0011	736150.25	1012018	Sum 1-4	286.26	7/1/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
G13-0010	736266.5	1011609.8	Sum 1-4	39.25	7/1/2003	7/23/2003	Non-OE	Bolt	12	E	1	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
G13-0015	736273.5	1011610.8	Sum 1-4	44	7/1/2003	7/23/2003	ORS	Frag	12	N	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
G14-0032	736274.75	1011667.5	Sum 1-4	65.27	7/2/2003	7/23/2003	ORS	76mm APHE Nose	12	NW	10	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
G14-0038	736306.75	1011742.8	Sum 1-4	36.88	7/2/2003	7/23/2003	ORS	Frag	10	N	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
G14-0040	736314.5	1011644.5	Sum 1-4	168.03	7/2/2003	7/23/2003	ORS	Frag	10	W	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
G15-0001	736253	1011871.3	Sum 1-4	593.87	7/2/2003	7/23/2003	Non-OE	Seed Item	NA	NA	NA	NA	7/30/2003	JK	**NO**	FJH	7/30/2003	NA	RS	7/30/2003		Disposed off-site
G15-0031	736300.25	1011865.3	Sum 1-4	262.9	7/2/2003	7/23/2003	**OE**	**M-103 Fuze**	0	NA	3	M-103 Fuze G15-0031	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
G15-0040	736339.25	1011821.8	Sum 1-4	53.58	7/2/2003	7/23/2003	ORS	Frag	12	S	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
H13-0005	736399	1011614.3	Sum 1-4	57.54	7/2/2003	7/23/2003	ORS	Frag	20	S	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
H14-0001	736376.75	1011734	Sum 1-4	62.79	7/2/2003	7/23/2003	ORS	Frag	0	NA	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
H14-0003	736385.5	1011705.3	Sum 1-4	23.08	7/2/2003	7/23/2003	**OE**	**76mm APHE Base Fuze**	18	E	6	76mm APHE Fuze H14-0003	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003	Demilled	Disposed off-site
H14-0016	736432	1011637.3	Sum 1-4	131.66	7/2/2003	7/23/2003	ORS	Frag	18	OW	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
H14-0017	736433	1011626.8	Sum 1-4	21.67	7/2/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	12	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
H14-0034	736481	1011670.5	Sum 1-4	35.28	7/2/2003	7/23/2003	Non-OE	Door Latch	16	S	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
H14-0035	736487	1011701.5	Sum 1-4	218.57	7/2/2003	7/23/2003	ORS	Frag	0	NA	1	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
H15-0035	736459.5	1011848.5	Sum 1-4	62.21	7/2/2003	7/23/2003	ORS	Frag	18	SW	1	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
H15-0043	736474.25	1011837.5	Sum 1-4	10.83	7/2/2003	7/23/2003	Non-OE	Rust Pocket	8	W	8	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
H15-0046	736479.5	1011839.5	Sum 1-4	10.89	7/2/2003	7/23/2003	Non-OE	Rust Pocket	12	N	12	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I14-0009	736519.75	1011674.5	Sum 1-4	65.89	7/2/2003	7/23/2003	ORS	Frag	16	S	3	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003		Disposed off-site
I14-0046	736575.5	1011636	Sum 1-4	65.84	7/2/2003	7/23/2003	Non-OE	Pipe	0	NA	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I14-0054	736584.25	1011724.8	Sum 1-4	61.91	7/2/2003	7/23/2003	ORS	Frag	0	NA	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I14-0055	736584.5	1011658.5	Sum 1-4	40.6	7/2/2003	7/23/2003	Non-OE	Tractor Latch	12	E	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I14-0063	736601.75	1011744.5	Sum 1-4	99.79	7/2/2003	7/23/2003	Non-OE	Wrench	30	S	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Poor	RS	7/30/2003		Disposed off-site
I14-0064	736604.25	1011733.5	Sum 1-4	48.74	7/2/2003	7/23/2003	ORS	Frag	0	NA	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I14-0070	736621	1011679.8	Sum 1-4	60.52	7/2/2003	7/23/2003	Non-OE	Pliers	12	W	8	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I15-0071	736601.25	1011757.5	Sum 1-4	205.64	7/2/2003	7/23/2003	ORS	Frag	12	N	4	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
I15-0072	736606.75	1011791.5	Sum 1-4	107.36	7/2/2003	7/23/2003	Non-OE	Trailor Latch	0	NA	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J13-0004	736629.25	1011624.3	Sum 1-4	64.23	7/2/2003	7/23/2003	Non-OE	Lawnmower Blade	0	NA	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J14-0015	736645	1011663.3	Sum 1-4	143.72	7/2/2003	7/23/2003	Non-OE	Plow Tooth	12	NW	3	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J15-0012	736642.25	1011828	Sum 1-4	107.74	7/2/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	10	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J15-0014	736644.25	1011790.3	Sum 1-4	30.17	7/2/2003	7/23/2003	**OE**	**2.36" Rocket Fuze**	6	E	3	2.36" Rocket Fuze J15-0014	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003	Demilled	Disposed off-site
J15-0015	736645.25	1011829.8	Sum 1-4	14.95	7/2/2003	7/23/2003	Non-OE	Rust Pocket	0	NA	8	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J15-0021	736657	1011797.5	Sum 1-4	143.66	7/2/2003	7/23/2003	Non-OE	Wrench	0	NA	6	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J15-0022	736659.75	1011779	Sum 1-4	144.51	7/2/2003	7/23/2003	ORS	Frag	0	NA	2	NA	7/30/2003	JK	Yes	FJH	7/30/2003	Good	RS	7/30/2003		Disposed off-site
J15-0034	736698.75	1011752.8	Sum 1-4	56.49	7/2/2003	7/23/2003	**OE**	**Unknown Bomb Fuze**	20	E	8	Unknown Fuze J15-0034	7/30/2003	JK	Yes	FJH	7/30/2003	Average	RS	7/30/2003	Demilled	Disposed off-site

See notes on next page.

Table F-1
Geophysical Dig Sheet and Target History

Notes
Bold indicates OE items
AP = armor-piercing
APHE = armor-piercing high-explosive
EOTI = Explosive Ordnance Technologies, Inc.
ft = feet
HE = high-explosive
in = inches
lb = pound
mm = millimeter
mV = millivolts
NA = not applicable
NC = no contact
OE = ordnance and explosives
ORS = ordnance related scrap
QC = quality control
RAP = rocket assisted projectile
RTK = real time kinematics
SUXOS = Senior UXO supervisor
TL = team leader
USACE = US Army Corps of Engineers
UXO = unexploded ordnance
VT = variable time
WESTON = Weston Solutions, Inc.

AMMUNITION CONSUPTION REPORTS

AMMUNITION CONSUMPTION CERTIFICATE

Company Name: WESTON Solutions, Inc.

ACR #: 001-03

Date: 13-Jun-03

Item		Nomenclature	Lot Number	Quantity Consumed
1		Caps, Blasting Non-Electric	213	2ea
2		Fuse, Time Blasting	84F010-004	15ft
3		Perforators	52220118	1ea
4		Cord, Detonating 80 gr	142244D	8ft
5		Igniters, Weatherproof	153	2ea

Suspect OE	Operation	Results	Final Disposition
37mm Projectile Unfuzed	Explosive Venting	Projectile Empty Reclassified as ORS	Projectile Placed in 5 Gallon Plastic Bucket Labeled OD Grounds Within the Boundry of Mt. Mollie.

Certifying Official

I certify that I saw the above items consumed during demolition on 13 June 2003

Date: June 13, 2003

Name(Typed or Printed) Frank Henderson

Signature:

Company Name WESTON Solutions, Inc.

Position: UXO Safety Officer

AMMUNITION CONSUMPTION CERTIFICATE

Company Name

ACR # 002-03
Date 3-Jul-03

WESTON Solutions, Inc.

Item		Nomenclature	Lot Number	Quantity Consumed
1		Caps, Blasting Non-Electric	213	2ea
2		Fuse, Time Blasting	84F010-004	15ft
3		Perforators	52220118	2ea
4		Cord, Detonating 80 gr	142244D	10ft
5		Igniters, Weatherproof	153	2ea

Suspect OE	Operation	Results	Final Disposition
75mm Projectile Unfuzed	Explosive Venting	Projectile Demilled with Shaped Charges	Pending re-test of suspect explosive filler

75mm Projectile prior to demolition

75mm Projectile with shape charges placed

75mm Projectile after detonation of shaped charges

Certifying Official

I certify that I saw the above items consumed during demolition on 3 July 2003

Date: July 3, 2003

Name(Typed or Printed) Frank Henderson
Company Name WESTON Solutions, Inc.

Signature:
Position: UXO Safety Officer

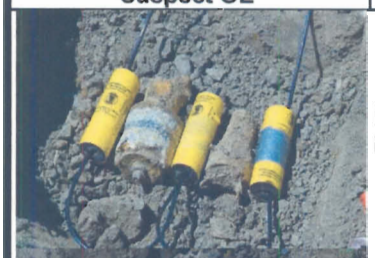
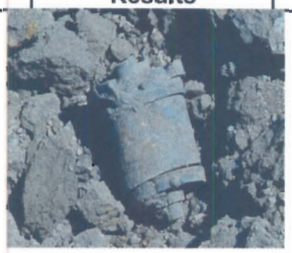
AMMUNITION CONSUMPTION CERTIFICATE

Company Name: WESTON Solutions, Inc.

ACR #: 003-03

Date: 17-Jul-03

Item		Nomenclature	Lot Number	Quantity Consumed
1		Caps, Blasting Non-Electric	213	6ea
2		Fuse, Time Blasting	84F010-004	50ft
3		Perforators	52220118	1ea
4		Cord, Detonating 80 gr	142244D	34ft
5		Igniters, Weatherproof	153	7ea
6		Boosters 1/2lb	BRLU 012865	13ea

Suspect OE	Operation	Results	Disposition
	Disposal by Detonation		M-103 Destroyed Unknown Bomb Fuze Demilled
	Explosive Venting		Both 75mm Projectiles vented.
	Explosive Venting		Fuze Destroyed, Residual Explosive Filler cleaned out. Round Demilled

Certifying Official

I certify that I saw the above items consumed during demolition on 17 July 2003

Date: July 17, 2003

Name(Typed or Printed) Frank Henderson

Company Name WESTON Solutions, Inc.

Signature:

Position: UXO Safety Officer

AMMUNITION CONSUMPTION CERTIFICATE

Company Name: WESTON Solutions, Inc.

ACR # 004-03

Date 31-Jul-03

Item		Nomenclature	Lot Number	Quantity Consumed
1		Caps, Blasting Non-Electric	213	2ea
2		Fuse, Time Blasting	84F010-004	20ft
3		Perforators	52220118	1ea
4		Cord, Detonating 80 gr	142244D	6ft
5		Igniters, Weatherproof	153	2ea

Suspect OE	Operation	Results	Disposition
57mm Projectile DD32-0005	Explosive Disposal	Functioned as Designed	Destroyed

Projectile Set for Demo

Explosives Placed

After Detonation

Certifying Official

I certify that I saw the above items consumed during demolition on 31 July 2003

Date: July 31, 2003

Name(Typed or Printed) Frank Henderson

Company Name WESTON Solutions, Inc.

Signature:

Position: UXO Safety Officer

DAILY UXO REPORTS
11 JULY 2003 THROUGH 30 JULY 2003

The following Daily Reports pertain to days when target reacquisition and anomaly excavation were preformed (11 July 2003 through 30 July 2003). Daily reports for all Phase 1 activities (2 June 2003 through 27 August 2003) have been previously submitted and reviewed by USACE. These reports are currently on file, and can be viewed upon request.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 11, 2003, Friday

WEEK # 13 *REPORT # 65*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 65°, High 85° AM Cloudy/PM Sunny, Breezy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	
Senior UXO Supervisor: George Payne (Off Site)	EM-61 Towed Array	
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 1 UXO Tech III & 2 UXO Tech IIs*	Syracuse Supply removed mini-excavator.
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Completed pin flagging 125 anomalies provided by Parsons Engineering. In addition, started and completed pin flagging 65 anomalies within the southern area of the OD Grounds.
WESTON UXO technicians removed 36 anomalies.
Prepared QC reports for 06-14 and 06-24. Completed QC reports for 6-17 DGM file. Posted QC reports for 6-16, 6-17, and 6-20 to Team Link. Submitted CDs for files 6-16 and 6-17 to USACE.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Provided construction support for geophysical mapping operations. Continued anomaly removal in transects # 170. Removed 31 pieces or non-oe from transect 170.
.

Parsons: Started DGM in grids OO-QQ 17-24. Delivered raw data from 7-10-03 and processed data from 7-10-03.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

Received call from Seneca County Sheriff's Department confirming UXO technician outside fence is working for WESTON. I confirmed the information.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-11-03

QC OFFICER (Print Name): John Williams
QC OFFICER SIGNATURE:

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; No transects magged and flagged today

Total number of anomalies flagged to date in transects is: 1395 discrete and 1 suspect trash pit.

Removed anomalies from transect # 170 results were 31 Non-OE (not complete)
Removed anomalies from open areas in north and west: results were 4 OE, 5 ORS and 27 Non-OE

Photos

OE Uncovered during anomaly acquisition and removal

20mm Projectile without nose fuze.
Anomaly # L33-0016

M-103 Fuze with cap in place.
Anomaly # L33-0035


M-103 Fuze with Cap and Safety Blocks Removed.
This Fuze is considered Armed
Anomaly # L38-0007

M-103 Fuze with cap in place.
Anomaly # J36-0010

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 12, 2003, Saturday

WEEK # 13 *REPORT # 66*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 61°, High 73° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	
Senior UXO Supervisor: George Payne (Off Site)	EM-61 Towed Array	
UXO Tech III: Joe Kendall (Off Site) *Brian Ditsch (Off Site)*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- No Techs On Site*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Surveyed 13 transects and one unwooded area
Performed QC inspections of anomalies removed on 7-11-03 both within transects and open area.
Completed QC reports for DGM File 06-14, 06-24, and 06-25
Posted QC reports for DGM file 06-12, 06-13, 06-14, and 0-623
Submitted (via Fed-Ex) CDs for DGM files 06-14, 06-23, and 06-24.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: No Work Performed

Parsons: Completed DGM in grids OO-QQ 17-24. Started DGM in grids OO-QQ 25-29. Delivered raw data from 7-11-03 and processed data from 7-11-03.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-12-03

QC OFFICER (Print Name): *John Williams* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; No transects magged and flagged today

Total number of anomalies flagged to date in transects is: 1395 discrete and 1 suspect trash pit.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 14, 2003, Monday

WEEK # 14 *REPORT # 67*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 61°, High 73° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	*T. Westenburg/CENWO*
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	
Senior UXO Supervisor: George Payne	EM-61 Towed Array	
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/4 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
WESTON UXO technicians removed 35 anomalies.
Submitted DGM data for 6-25 and 6-26 to USACE via Fed-Ex. Completed QC check and summary report for 6-26.
Started QC check of 6-27 data; however completion is pending verification from Parsons regarding processing
Procedures and coverage maps. Started QC check of 6-28 data.
Surveyed transects and one non-wooded area previously cleared by Sessler. Total acres cleared to date: 232.31
acres non-wooded and 13.62 wooded areas.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI: Magged and Flagged transects 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113,
114, 115, 116, and 117and 168 (not complete). Removed anomalies from transects 128, 129, 133

Parsons: Continued with geophysical mapping on the east side of Reeder Creek.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-12-03

QC OFFICER (Print Name): John Williams
QC OFFICER SIGNATURE:

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **99** is 119ft, 14 anomalies **100** is 561ft, 3 anomalies- **101** is 201ft, 25 anomalies- **102** is 192ft, 11 anomalies- **103** is 222ft, 29 anomalies- **104** is 136ft, 30 anomalies- **105** is 160ft, 16 anomalies-**106** is 158ft, 15 anomalies-**107** is 161ft, 19 anomalies-**108** is 167ft, 26 anomalies- **109** is 165ft, 5 anomalies- **110** is 151ft, 3anomalies- **111** is 163ft, 7 anomalies-**112** is 79ft, 12 anomalies - **113** is 153ft, 6 anomalies- **114** is 113ft, 4 anomalies-**115** is 109ft, 6 anomalies-**116** is 108ft, 4 anomalies. **117** is 92ft, 0 anomalies

Total number of anomalies flagged to date in transects is: 1630 discrete and 1 suspect trash pit.

Seven OE items were located within the open area of the ODG an M-103 Fuze in L-34, an M-103 Fuze in K-34, a 106mm HEAT Base Fuze in J-35, a 75mm APHE w/Base Fuze in J-35, an M-103 Fuze in K-33, an M-103 Fuze in E-31, and a Projectile VT Fuze (Armed) in F-29.

PHOTOS

OE found during removal activities 7-14-03

106mm HEAT Base Fuze
J35-0005

76mm HEAP w/Base Fuze to be blown in place
K34-0019

M-103 Fuze
E31-0004, L34-0015, K34-0008, K33-0013,

Projectile VT Fuze (Armed) to be blown in place
F29-0002

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 15, 2003, Tuesday

WEEK # 14 *REPORT # 68*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 61°, High 88° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	*T. Westenburg/CENWO*
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	*M. Herse/CENWO*
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	*G. Herring/CENWO*
Senior UXO Supervisor: George Payne	EM-61 Towed Array	
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	
Project Manager: Chris Kane		
Program Manager: Chris Henry		

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/3 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
WESTON UXO technicians removed 80 anomalies.
Escorted USACE and Weston Management throughout the OD Grounds.
Continued QC check and summary for 06-28.
Submitted DGM data for 6-28 to USACE via Fed-Ex.
Conducted QC inspections of anomalies dug on 6-14-03.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI: Magged and Flagged transects 38, 39, 40, 41, 42, 43, 44, 45, 52, 53, 54, 55, and 56. Removed anomalies from transects 127, 128, 130, 131, 162, 164, 165, 166, and 168.

Parsons: Continued with geophysical mapping on the east side of Reeder Creek. Delivered raw and processed data for 7-12 and 7-14-03

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints issued from any subcontractors during morning safety brief.
Met with Parsons field crew; they had no complaints regarding terrain for geophysical mapping.
Conference call with on site USACE personnel and Andy Schwartz to discuss QA/QC data and process. Details Will be documented in the meeting minutes to be submitted.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-15-03

QC OFFICER (Print Name): *John Williams* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **38** is 203ft, 24 anomalies **39** is 1671ft, 8 anomalies- **40** is 181ft, 14 anomalies- **41** is 266ft, 33 anomalies- **42** is 210ft, 11 anomalies- **43** is 222ft, 7 anomalies- **44** is 255ft, 19 anomalies-**45** is 306ft, 23 anomalies-**52** is 1171ft, 13 anomalies-**53** is 435ft, 48 anomalies- **54** is 391ft, 24 anomalies- **55** is 136ft, 22 anomalies- **56** is 142ft, 10 anomalies.

Total number of anomalies flagged to date in transects is: 1886 discrete and 1 suspect trash pit.

Ten OE items were located within the open area of the ODG a 2.36" Rocket Motor Fuze in AA04, a 75mm Projectile in N-17, a Nose Fuze in N-18, a VT Fuze in O-17, two M-103 Fuzes in P-13, a Rocket Burster in P-13, an M-103 Fuze in P-14, a 20mm Projectile in P-17, a 75mm Projectile Fuze in P-17.

PHOTOS

OE Found on 7-15-03

75mm APHE-T Fuze
P17-0180

M-103 Fuze
P13-0023, P13-0025, P14-0113

Nose Fuze
N18-0015

Rocket Burster
P13-0072

2.36” Rocket Motor w/Fuze
AA04-0038

VT Fuze
O17-0200

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 16, 2003, Wednesday

WEEK # 14 *REPORT # 69*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 66°, High 76° Partly Cloudy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	*T. Westenburg/CENWO*
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	
Senior UXO Supervisor: George Payne	EM-61 Towed Array	
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/4 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
WESTON UXO technicians removed 13 anomalies and collected all OE found to date.
Obtained sandbags for demolition operations.
Performed QC inspections on anomalies removed from open area and transects
Completed QC reports for DGM data 06-27 and sent CD to USACE via Fede-Ex.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI: Magged and Flagged transects 33, 34, 35, 36, 37, 182, 184, 185, 186, 187, 197, 198, 199, 200, 201, 202, and 203. Removed anomalies from transects 112, 113, 115, 116, 169, 171.

Parsons: Continued with geophysical mapping on the east side of Reeder Creek. Delivered raw and processed data for 7-15-03. Also provided revised data on root cause analysis for failed signal to noise DQO.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints issued from any subcontractors during morning safety brief.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-16-03

QC OFFICER (Print Name): *John Williams* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **33** is 193ft, 23 anomalies **34** is 2371ft, 42 anomalies- **35** is 232ft, 19 anomalies- **36** is 222ft, 28 anomalies- **37** is 206ft, 25 anomalies- **182** is 57ft, 0 anomalies- **184** is 111ft, 5 anomalies-**185** is 354ft, 23 anomalies-**186** is 3331ft, 10 anomalies-**187** is 352ft, 22 anomalies- **197** is 143ft, 8 anomalies- **198** is 163ft, 3 anomalies- **199** is 164ft, 0 anomalies- **200** is 171ft, 19 Anomalies- **201** is 123ft, 5 anomalies- **202** is 126ft**,** 6 anomalies- **203** is 118ft, 4 anomalies

Total number of anomalies flagged to date in transects is: 2128 discrete and 2 suspect trash pit.

Ten OE items were located within the open area of the ODG a 2.36" Rocket Motor Fuze in AA04, a 75mm Projectile in N-17, a Nose Fuze in N-18, a VT Fuze in O-17, two M-103 Fuzes in P-13, a Rocket Burster in P-13, an M-103 Fuze in P-14, a 20mm Projectile in P-17, a 75mm Projectile Fuze in P-17.

PHOTOS

OE Found on 7-16-03

20mm Projectile
P19-0043, Q18-0009,

57mm Projectile Unfuzed
P18-0120

75mm Projectile Unfuzed
P18-0170

M-120 Bomb Fuze
P18-0037

M-2 Mortar Fuze
M18-0126

M-51 Series (T-Bar) Fuze
N19-0084

Unknown Bomb Fuze 20mm Projectile, Fuze Burster, N19-0064

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 17, 2003, Thursday

WEEK # 14 *REPORT # 70*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 66°, High 76° Partly Cloudy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: John Williams	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Geophysicist: Ryan Steigerwalt	2 John Deere Gators w/ 1	
Senior UXO Supervisor: George Payne	EM-61 Towed Array	
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/4 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
WESTON UXO technicians removed 26 anomalies.
Conducted demolition operations on OE found in the OD Grounds.
Conducted explosives inventory. All explosives accounted for with no discrepancies.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Magged and Flagged transects 183, 188, and 189. Removed anomalies from transects 104, 111, 113, 200, 201, 202, 203. Filled sandbags for demolition operations, assisted in demolition operations.

Parsons: Continued with geophysical mapping on the east side of Reeder Creek. Delivered raw and processed data for 7-16-03.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

Parsons asked for a walk thru of open areas east of Reeder creek. Steve Kirejczyk walked area with Parsons and cut stumps as needed.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-17-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.
CDs containing data sets 6-30 and 7-01 were sent to Rick Grabowski and Andy Schwartz via Fed-Ex.
Electronic files containing QC reviews and summary reports for data sets 6-23 through 6-30 have been uploaded to the Teamlink site.
Data set 6-28 is currently under further review.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **183** is 332ft, 13 anomalies **188** is 385ft, 24 anomalies- **189** is 312ft, 25 anomalies

Total number of anomalies flagged to date in transects is: 2190 discrete and 2 suspect trash pit.

Two OE items were located within the open area of the ODG an M-103Fuze in M17,and a Bomb Fuze in F-25.
In addition to the two OE items a 76mm APHE round was found in grid F26. This ORS item was within 250ft of the 2500ft radius and was located at a depth of 20 inches.

PHOTOS

OE Found on 7-17-03

Bomb Fuze
F25-0005

M-103 Fuze
M17-0087

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 18, 2003, Friday

WEEK # 14 *REPORT # 71*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 61°, High 85° AM Early Morning Thunderstorms/PM Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne (off Site)	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall (Off Site) *Brian Ditsch (Off Site)*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- None On Site*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Continued to cut Stumps and moved debris to assist Parsons Engineering in Geophysical Mapping Operations.
Work was performed in grids bordered on the southwest by grids GG-33 and GG-37.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Mag and Flag Team requested day off and was given one.

Parsons: Continued with geophysical mapping on the east side of Reeder Creek. No raw or processed data delivered.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-18-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

Data sets 07-02 and 07-0-3 were sent to Rick Grabowski and Andy Schwartz.
Data set 07-03b did not include merged targets.
Numerous data gaps were observed in 07-03 data. Gaps were digitized as way points for field review

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; No transects magged or flagged today.

Total number of anomalies flagged to date in transects is: 2190 discrete and 2 suspect trash pit.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 19, 2003, Saturday

WEEK # 14 *REPORT # 72*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 56°, High 78° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne (off Site)	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall (Off Site) *Brian Ditsch (Off Site)*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- None On Site*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Continued to cut Stumps and moved debris to assist Parsons Engineering in Geophysical Mapping Operations
Work was performed in grids bordered on the southwest by U-37, and Y-37.

Conducted QC inspections of anomalies dug on 7-17-03
Reacquired and flagged 55 anomalies provided by Parsons in the southeast region of the ODG

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: No work performed today

Parsons: Continued with geophysical mapping on the east side of Reeder Creek. No raw or processed data delivered. Switched out one coil giving problems. Reran West GPO

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-19-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections found no failures.
Data set 07-07 was sent to Rick Grabowski and Andy Schwartz.
Cumulative area was calculated using grid target data provided by Parsons. A total of 137.62 acres as of 7-16-03 was determined by utilizing Oasis Montaj UX Area GX. Data gaps observed in 07-02 data was digitized and uploaded into the RTK for in field review. Several individual gaps were observed with only small obstructions. A 70-foot gap (measurement from geophysical data) was staked out in the field. Two small trees spaced 15 feet apart were found within the gap.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; No transects magged or flagged today.

Total number of anomalies flagged to date in transects is: 2190 discrete and 2 suspect trash pit.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 21, 2003, Monday

WEEK # 15 *REPORT # 73*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 67°, High 75° Rain/Thunderstorms

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/4UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Weston UXO Technicians cleared 50 anomalies within the open area of the ODG.
Conducted QC inspections of Transects
Requested Parsons geophysically map transect as requested by Tom Battaglia (CENAN) to see what correlation can be drawn between the EM-61 and magging and flagging operations.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI: Magged and Flagged transects: 31, 32, 46, 47, 48, 49, 50, 176, 177, 178, 179, 180, 181 and 190. *Cleared* anomalies from transects: 33, 34, 99, 100, 101, 102, 103, 197, 198, 200, and 217.

Parsons: Continued DGM operations east of Reeder Creek. Ran EM-61 thru transect 135,
Delivered raw and processed data for 7-17, 7-18, and 7-19-03.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-21-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

All transects passed QC inspections
An in-field audit was performed to verify the size and extent of data gaps observed in datasets 0702 and 0703 to ensure the maximum geophysical coverage is being obtained in accessible areas. Waypoints marking the center of each gap were uploaded into the RTK GPS to correctly navigate to the potential/suggested inaccessible area
Results of this review suggest slender-elongate gaps were often indicative of a primarily accessible area not fully surveyed. Single trees, with varying diameter often mark the center of these gaps. The toed-array operator appears to gradually turn around the obstruction, leaving slender-elongate data gaps evident in recently submitted data. Gaps measuring approximately 40 X 20 feet were observed around single trees or stumps. Gaps up to 70 feet were observed around several trees within a 15-foot radius. In addition, thinner-elongate gaps can be interpreted as areas not encompassing any obstructions. Its suggested Parsons rectify their data collection methods to better cover all. accessible areas of the ODG
QC dataset 0708 was sent to Rick Grabowski and Andy Schwartz.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **31** is 259ft, 52 anomalies **32** is 2501ft, 35 anomalies- **46** is 340ft, 14 anomalies- **47** is 360ft, 12 anomalies- **48** is 378ft, 31 anomalies- **49** is 357ft, 15 anomalies- **50** is 260ft, 28 anomalies-**176** is 92ft, 9 anomalies-**177** is 2591ft, 4 anomalies-**178** is 266ft, 4 anomalies- **179** is 290ft, 14 anomalies- **180** is 97ft, 2 anomalies- **181** is 179ft, 2 anomalies- **190** is 260ft, 15 anomalies.

Total number of anomalies flagged to date in transects is: 2427 discrete and 2 suspect trash pit.

Two OE items found; 1 M-103 Fuze in grid QQ22-0009 and 1 Bomb Fuze in Transect # 198.

PHOTOS

OE Found 7-21-03

M-103 Fuze
QQ22-0009

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 22, 2003, Tuesday

WEEK # 15 *REPORT # 74*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 67°, High 75° Rain/Thunderstorms

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*2 Case Tractors*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 4 UXO Tech IIIs/4UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Performed QC inspection of anomalies removed from the East side of the ODG.
UXO Technicians cleared anomalies from transect # 146.
Demob'd 5 EOTI UXO technicians.
All teams were called off the ODG at approximately 1630 due to thunderstorms over the area.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Magged and Flagged transects: 210, 211, 212, 213, 214, 215, 216, 217, and 218. Cleared anomalies from transects: 146, 103, 105, 35, and 36.

Parsons: Continued DGM operations in the north and northeast quadrants.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.
Conference call with Chris Kane (PM) and Tom Battaglia (CENAN), Tom B. directed WESTON to:
Stop digging in transects, Only dig in open areas, Stop mag and flag operations, Demob UXO teams as needed
Delineate area west of Pad J to determine clutter area limits.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-22-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspections of anomaly locations found no failures.

CDs containing data collected on 07-09 and 07-10 were sent to Rick Grabowski and Andy Schwartz.
Data collected on 07-10 was failed due to latency errors observed throughout the dataset.

RECOMMENDED CORRECTIVE ACTIONS

Data set 07-01 latency correction should be further refined to better position detected anomalies.

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

The following transects are listed by number (bold), length, and number of anomalies; **210** is 152ft, 20 anomalies **211** is 187ft, 22 anomalies- **212** is 232ft, 25 anomalies- **213** is 282ft, 50 anomalies- **214** is 372ft, 103 anomalies- **215** is 352ft, 62 anomalies- **216** is 316ft, 66 anomalies-**217** is 131ft, 18 anomalies-**218** is 1041ft, 36 anomalies

Total number of transects and anomalies flagged to date is: Transects- 132 Anomalies-2829 discrete and 7 suspect trash pits.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 23, 2003, Wednesday

WEEK # 15 *REPORT # 75*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 68°, High 76° AM Cloudy/PM Rain

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*1 Case Tractor*	
Project Engineer: Steffanie Warriner	1 mower deck/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 1 UXO Tech IIIs/2 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
UXO Technicians completed clearing anomalies from transect # 146 and 135.
Reacquired and flagged 50 anomalies in the Northeast Quadrant.
Assisted Parsons in getting them unstuck.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Cleared anomalies from transect: 135

Parsons: Continued DGM operations in the north quadrants. Delivered final 200 anomaly picks. Delivered raw data For 7-21 and 7-22-03. Delivered processed data for 7-19-03.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.
Frank Magner (CENAB OE Safety) informed me that he would be off site to attend HAZWOPER refresher and would be available by cell phone.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-23-03

QC OFFICER (Print Name): Ryan Steigerwalt *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

CDs containing data collected on 07-11 and 07-12 were sent to Rick Grabowski and Andy Schwartz.
Target density map was produced to approximate potential items per acre in 200ft increments between the 1000ft And 2500ft radius.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

Total number of transects flagged and anomalies to date is: Transects- 132 Anomalies-2720 discrete and 7 suspect trash areas.

No OE Found within transects 146 and 135.

Total number of anomalies dug within the transects is: 736
Number of OE items found within the transects: 1

Total number of anomalies dug within the open area is: 246
Number of OE items found within the open area is: 34

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 24, 2003, Thursday

WEEK # 15 *REPORT # 76*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 63°, High 72° AM Rain Showers/PM Cloudy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*1 Case Tractor*	*P. Welch/WESTON*
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- 1 UXO Tech IIIs/2 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
UXO Technicians clearing flagged anomalies in western quadrant.
Reacquired and flagged 139 of 191 anomalies throughout the OD Grounds.
Conducted explosives inventory. All explosives accounted for with no discrepancies.
Escorted WESTON's QC Manager throughout the site

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: Cleared flagged anomalies from the northeastern quadrant.

Parsons: Continued DGM operations in the north quadrants. Delivered processed data for 7-21 and 7-22.
Delivered raw data for 7-23.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-24-03

QC OFFICER (Print Name): Ryan Steigerwalt *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

CDs containing data collected on 07-15 were sent to Rick Grabowski and Andy Schwartz.

Located and removed one USACE QA item. Item # R was located at II38-077, 30" SW of pin flag and 36" deep.

Discussed QC findings for 0712 data with John Williams. Identified noise in 0712a and latency errors in 0712b. Asked John Baptiste (Parsons) to refine latency values and resubmit the data. John B. agreed that increased noise was present in Coil 3 data. Also asked John B. to investigate anomalous readings leading to possible QC failures in Pre- and Post- survey QC tests on 0714 data.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

Total number of transects and anomalies flagged to date is: Transects- 132 Anomalies-2829 discrete and 7 suspect trash pits.

Total number of anomalies dug within the transects is: 736
Number of OE items found within the transects: 1

One OE item found in grid II38-0009. Item was a 76mm APHE Base Fuze

Total number of anomalies dug within the open area is: 313
Number of OE items found within the open area is: 35

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 25, 2003, Friday

WEEK # 15 *REPORT # 76*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 63°, High 72° AM sunny/PM sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson (off-site)	*1 Case Tractor*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall (off-site) *Brian Ditsch (off-site)*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*Parsons – 4 Surveyors*	
(2)		
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors

Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

Parsons: Continued DGM operations in the north quadrants.

Delivered processed data for 7-23.

Resubmitted 0628 and 0712 for review.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

16:00 – 16:30 Conference call held between WESTON and USACE to discuss QA/QC and project status. Topics covered included: improved data deliverable status and data quality; scheduling of reacquisition; anomaly picking threshold and questionable data (06/13, 06/19, and 06/27); and acreage covered. Next project status meeting scheduled for Thurs. 07/31 at 10:00 EST.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-25-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

CDs containing data collected on 07-16 were sent to Rick Grabowski and Andy Schwartz.

Parsons requested additional clearing of stumps and other debris that may hinder accessibility (U-37).
Steve K. cut visible stumps and Parsons did not notify Weston field crew about any other questionable areas.
John B. was made aware of QC deficiencies on datasets 0712 and 0714. He agreed to refine latency errors observed In 0712b data. He also noted increased noise levels in 0712a data. This data is still under review. Anomalous Readings were observed in 0714 pre- and post-survey QC tests. John B. was asked to investigate these findings. He noted coil 1 data at the end of day was removed do to increased noise. The remaining data is being reviewed for additional increased noise levels.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Location of hospital route and emergency contact, Ordnance Avoidance, and Dehydration

UXO/OE INFORMATION

Reacquired 51 anomalies from Parsons' dig list for future digging.

No anomalies were dug today, and no OE items were found.

Total number of anomalies dug within the open area is: 313
Number of OE items found within the open area is: 35

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 26, 2003, Saturday

WEEK # 15 *REPORT # 75*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *S. Kirejczyk*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 68°, High 76° Partly Cloudy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*None*
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	2 John Deere Gators w/ 1	
Project Engineer: Steffanie Warriner	EM-61 Towed Array	
Senior UXO Supervisor: George Payne	3 Mini Open Front Barricades	
UXO Tech III: Joe Kendall *Brian Ditsch*	1 Trimble 5700 GPS Total Station RTK	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI- None*	
(2)	*Parsons – 3 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*
EOTI: None

Parsons: Fixed broken coil on towed array and calibrated the new coil on west GPO. Delivered raw data For 7-25.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractor.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-26-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

CDs containing data collected on 07-17 were sent to Rick Grabowski and Andy Schwartz.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Demolition Safety, Ordnance Avoidance, Lifting Techniques, and Radio Contact, Driving Speeds, Dehydration

UXO/OE INFORMATION

Total number of transects flagged and anomalies to date is: Transects- 132 Anomalies-2720 discrete and 7 suspect trash areas.

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Total number of anomalies dug within the transects is: 736
Number of OE items found within the transects: 1

Total number of anomalies dug within the open area is: 246
Number of OE items found within the open area is: 34

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 28, 2003, Monday

WEEK # 16 *REPORT # 78*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 63°, High 83° Cloudy

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*F. Magner/CENAB*
Survey Technician: Steve Kirejczyk	Polaris UTV	
UXO QC/Safety: Frank Henderson	*1 Case Tractor*	
Project Engineer: Steffanie Warriner	2 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI – 1 UXO Tech III/2 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Conducted QC inspection of anomalies previously dug on 7-24-03
Excavated 25 pin-flagged anomalies.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI- Provided construction support for geophysical mapping operations, excavated 27 pin-flagged anomalies.

Parsons: Continued DGM operations in the north quadrants.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

John Baptiste indicated that Parsons would be complete with DGM by the end of this week.
No complaints from subcontractors

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-28-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspection of excavated anomalies resulted in no failures.
Received 07-26 data. This includes WGPO collected Saturday. Cracks were observed in coil 3 on 7-23. Data collected on 7-24 displays high levels of noise due to cracked coil 3. John Baptiste indicates 07-23 data is relatively okay. They need to recollect line 7 data. WESTON observed low amplitude noise throughout the dataset.
An in field review of potential data gaps was conducted on 7-11 data. Missed accessible areas totaled approximately 0.23 acres. John Baptiste was notified and will walk the site tomorrow. 07-19 data sent to Rick Grabowski and Andy Schwartz.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Radio Contact, heavy Lifting, Ordnance Avoidance, and Dehydration

UXO/OE INFORMATION

M-103 Fuze found in Grid HH34, Anomaly # 0005. Fuze was safe to move and transported to OD Grounds

Total number of anomalies dug within the open area is: 365
Number of OE items found within the open area is: 36

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-28-03

PHOTOS

OE Located on 7-28-03

M-103 Fuze
Anomaly # HH34-0005

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 29, 2003, Tuesday

WEEK # 16 *REPORT # 79*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 57°, High 87° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	*1 Case Tractor*	
Project Engineer: Steffanie Warriner	1 mower decks/1 Rake	
Senior UXO Supervisor: George Payne	2 John Deere Gators w/ 1	
UXO Tech III: Joe Kendall *Brian Ditsch*	EM-61 Towed Array	
	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI – 1 UXO Tech III/2 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Conducted QC inspection of anomalies previously dug on 7-28-03
Excavated 28 pin-flagged anomalies.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI- Provided construction support for geophysical mapping operations, excavated 22 pin-flagged anomalies.

Parsons: Continued DGM operations in the north quadrants.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractors
Notified Tom Battaglia that all current anomalies (500 provided by Parsons) would be dug by the end of the day on Thursday the 31st of July. All UXO technicians will be demobilized at that time.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-29-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspection of excavated anomalies resulted in no failures.

Inspected previously observed data gaps on 7-11 data with John Baptiste (Parsons). He agreed some of these areas were accessible for survey. We also noted the long slender gaps around trees. John agreed these could have been tighter. A discussion on area calculation was held. Parsons is approximating area by polygoning the coverage of their coil tracking or path. Data gaps and inaccessible areas are included. WESTON is using an automated calculation which only includes usable geophysical data. A root cause analysis was performed to try to reduce potential power supply interferences in background noise. The negative battery terminal was grounded to the Gator frame while a static background test was rerun. 07-20 WGPO and 0712 resubmitted data was sent to Rick Grabowski and Andy Schwartz.

John Baptiste agreed to resurvey areas initially considered inaccessible for data obtained on 7-11.

No agreement was reached on how to track coverage.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Radio Contact, heavy Lifting, Ordnance Avoidance, Dehydration, and Poison Ivy

UXO/OE INFORMATION

M-103 Fuze found in Grid KK15, Anomaly # 0085 and Grid I16 Anomaly # 0047. Fuzes were safe to move and transported to OD Grounds

Total number of anomalies dug within the open area is: 415

Number of OE items found within the open area is: 40

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-29-03

PHOTOS

OE Located on 7-29-03

M-103 Fuze
KK15-0085, and I16-0047

76mm APHE Base Fuze
I16-0006

76mm APHE Base Fuze
I16-0002

76mm APHE Projectile (Empty)
G14-0022

DAILY CONSTRUCTION QUALITY CONTROL REPORT
GEOPHYSICAL MAPPING, OPEN DETONATION GROUNDS
DATE: July 30, 2003, Wednesday

WEEK # 16 *REPORT # 80*	*HOURS ON SITE:* *0630-1800*	*WRITTEN BY:* *F. Henderson*	*CONTRACT #:* *DACA45-98-D- 0004* *TASK # 0037*	*WORK ORDER #* *20074.515.037*

WEATHER/TEMPERATURE: Low 60°, High 87° Sunny

LOCATION OF WORK: Seneca Army Depot Activity, Romulus, NY

WESTON PERSONNEL:	*EQUIPMENT:*	*VISITORS/AFFILIATION:*
Site Manager/QC Officer: Ryan Steigerwalt	**ODG**	*T. Battaglia/CENAN*
Survey Technician: Steve Kirejczyk	Polaris UTV	*F. Magner/CENAB*
UXO QC/Safety: Frank Henderson	2 John Deere Gators w/ 1	
Project Engineer: Steffanie Warriner	EM-61 Towed Array	
Senior UXO Supervisor: George Payne		
UXO Tech III: Joe Kendall *Brian Ditsch*	3 Mini Open Front Barricades	

SUBCONTRACTOR:		*MATERIALS DELIVERED (indicate size, type, and condition):*
(1)	*EOTI – 1 UXO Tech III/2 UXO Tech IIs*	
(2)	*Parsons – 4 Surveyors*	
(3)		
(4)		

WORK PERFORMED BY WESTON

Provided UXO Safety oversight of subcontractors
Provided oversight for Full Scale Digital Geophysical Mapping (DGM) by subcontractors.
Conducted QC inspection of anomalies previously dug on 7-29-03
Excavated 54 pin-flagged anomalies.

WORK COMPLETED BY WESTON SUBCONTRACTORS

***ODG**:*

EOTI- Provided construction support for geophysical mapping operations, excavated 18 pin-flagged anomalies.

Parsons: Continued DGM operations in the north quadrants.

AGREEMENTS MADE/CONVERSATIONS (Refer to telecons, speed memos, phone records, and/or logbooks for details)

No complaints from subcontractors
Notified Tom Battaglia of a 57mm unfuzed projectile found in grid coordinates DD32-0005.

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-30-03

QC OFFICER (Print Name): *Ryan Steigerwalt* *QC OFFICER SIGNATURE:*

TYPE OF INSPECTION (Preparatory, Initial, Follow Up):

CQC FINDINGS (Satisfactory Work Completed and Deficiencies; Attach Phase Inspection Forms):

QC inspection of excavated anomalies resulted in no failures.
Using front end loader modified with forks, EOTI UXO technicians cleared 8 anomalies per hour.

Parsons replaced the coil 2 electronic box on towed-array. The WGPO was rerun. Increased noise was evident during field review.

07-22 data was failed due to tracking discrepancies resulting in high velocities, most likely due to GPS error. The data were reprocessed to remove the high velocity areas.

RECOMMENDED CORRECTIVE ACTIONS

SAFETY OBSERVATIONS/VIOLATIONS/COMMENTS

Safety briefing held, topics discussed: Slips, Trips, and Falls, First Aid Procedures, Radio Contact, heavy Lifting, Ordnance Avoidance, Dehydration, and Poison Ivy
EOTI Supervisor complained of back strain. He was transported to local clinic. Ted Blackburn (WESTON Regional Safety Officer) and Chris Kane (Project Manager) notified. NOI completed

UXO/OE INFORMATION

57mm Projectile found at DD32-0005, 76mm APHE Base Fuze found at DD34-0031 & H14-0003, M-103 Fuze found at G15-0031, 2.36" Rocket Fuze found at J15-0014, and an unknown bomb fuze was found at J15-0034.
Total number of anomalies dug within the open area is: 487
Number of OE items found within the open area is: 46

DAILY CONSTRUCTION QUALITY CONTROL REPORT
DATE: 07-30-03

PHOTOS

OE Located on 7-29-03

2.36" Rocket Fuze
J15-0014

57mm Projectile (Unfuzed)
DD32-0005

76mm APHE Fuze
DD34-0031 and H14-0003

M-103 Fuze
G15-0031

APPENDIX G

FINANCIAL BREAKDOWN

APPENDIX G – FINANCIAL BREAKDOWN

Table G-1
Financial Breakdown for Phase I and Cost Estimate for Phase II

Task Description	Phase I	Phase II (Costs to Date)
Site Visit & Document Review	$8,150	$2,500
Work Plan	$9,250	$6,500
Site Safety & Health Plan	$1,960	$1,000
Emergency Contingency Plan	$920	$250
Mobilization/Demobilization	$103,870	$31,690
Site Preparation & Clearing	$57,650	
Brush Clearance (232 acres)	$164,400	
Geophysical Test Plot	$7,330	
Geophysical Investigation Mapping	$279,690	
Anomaly Reacquisition	$94,210	
Anomaly Reacquisition, Removal & Disposal	$0.00	$505,000
Location Surveys & Mapping	$5,730	
Geographical Information Systems	$35,890	
Site Security	$0.00	
Project Reporting	$25,550	$10,100
Site Administration & Safety	$440,290	$182,550
Support Staff (Clearing & Quality Control)	$0.00	
Lodging & Per Diem	$41,380	
Project Support	$142,380	$95,920
Low Value Equipment	$7,730	$2,500
Cost Subtotal	**$1,426,380**	**$838,010**
Fee	**$99,850**	**$58,660**
Project Total	**$1,526,230**	**$896,670**