APPENDIX A

SCOPE OF WORK

AND

ADEM APPROVAL LETTER

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SCOPE OF WORK

FOR

INITIAL ACTUAL TASK ORDER

SITE CHARACTERIZATION

AT

FORT McCLELLAN, ALABAMA

U.S. ARMY ENGINEERING AND SUPPORT CENTER,
HUNTSVILLE

STATEMENT OF WORK

SITE CHARACTERIZATION

AT

FORT McCLELLAN, ALABAMA

FEBRUARY 13, 2002~~JANUARY 11,2001~~

1.0 **Objective.** The objective of this task order is for the Contractor to characterize ranges possibly contaminated with Ordnance and Explosives (OE) at Fort McClellan, Alabama.

2.0 **BACKGROUND.** Fort McClellan is a U.S. Army facility under the control of the U.S. Army Training and Doctrine Command (TRADOC) and is scheduled to be closed under the Base Realignment and Closure (BRAC) program. Ordnance and Explosives (OE), including Chemical Warfare Materiel (CWM) are suspected to exist on this property.

2.1 General. The work required under this Scope of Work (SOW) falls under the BRAC program.

2.1.1 Ordnance and Explosives are a safety hazard and, if present, constitute a hazard to the public and the environment. The Contractor will perform this work in a manner consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the National Contingency Plan (NCP). For any actions on site, administrative requirements of federal, state, or local permits are not required, but the substantive permit requirements shall be fulfilled. The provisions of 29 CFR 1910.120 apply to all actions taken at this site.

2.2 SITE DESCRIPTION.

2.2.1 Location. Fort McClellan is located northeast of the City of Anniston, Calhoun County, Alabama. To the west are the areas known as Weaver and Blue Mountain. To the North is the City of Jacksonville. The Talladega Forest is to the east of the post.

2.2.2 Site History. Fort McClellan has been used for

artillery training of troops and the National Guard as early as 1912 to present day. In 1941, McClellan became site of the Chemical Corps Training Command. In 1962, the U.S. Army Combat Developments Command Chemical Biological-Radiological Agency moved to Fort McClellan. In 1973, the Chemical Corps School along with the U.S. Army Combat Developments Command Chemical Biological-Radiological Agency closed. In 1979, the U.S. Army Chemical Corps School re-established along with a Training Brigade for Basic Training.

2.3 Area of Concern. The contractor shall characterize the following areas identified in the Conceptual Plan dated August 2000: a) Alpha Area: This area consists of approximately 942 acres within which are three areas, M1.01, M5, and M6, identified in the Archives Search Report (ASR) as potentially contaminated with OE.

b) Bravo Area: This area consists of approximately 3,806 acres within two parcels, M3 and M4, identified in the ASR as potentially contaminated with OE.

3.0 **TASKS.**

3.1 (TASK 1-Firm Fixed Price) SITE VISIT. The purpose of this task is to permit those members of the Contractor with direct project responsibility to gain necessary information about site conditions. A site visit is authorized to assist in preparing the work plan. The site visit team shall include one (1) Senior UXO Supervisor. The Contractor will coordinate the site visit with the Contracting Officer (CO) 10 days prior to arriving on site. The Contractor will prepare an abbreviated SSHP and submit it to the CO for review and approval prior to the visit. The Contractor shall ensure that the site visit is fully coordinated and that all members of the site visit team maintain compliance with the abbreviated SSHP.

3.2 (TASK 2-Firm Fixed Price) Work Plan. The contractor shall prepare and submit a Site-Wide Work Plan that will provide the basis for performance of all following projects performed on Fort McClellan. The Site-Wide Work Plan shall incorporate all of the requirements contained in Data Item Descriptions within the

general statement of work for the basic contract, and will reflect requirements as of October 1999. In addition, the contractor shall prepare and submit a site-specific work plan for each of the two areas under this project in accordance with DID OT-FMC-005-01 and this Task Order. The site specific work plan shall include all site specific details as required by OE-005-1 that are not covered by the site-wide work plan for Fort McClellan. The work plan shall propose site locations and the anticipated work that shall be conducted. The work plan shall include all necessary sub-plans in accordance with DID OT-FMC-005-01 and each required sub-plan's corresponding DID. The work conducted under this work plan shall also be performed in accordance with the technical requirements as outlined in each DID. Specific requirements determined by the contractor as not applicable shall be clearly identified by the contractor in his work plan. The work plans shall include a conceptual site model for each of the areas to be characterized with the exception of the M1.01 Parcel.

3.3 <u>(TASK 3, OPTION 1-Firm Fixed Price) Phase I Site Characterization.</u> The purpose of site characterization shall be to delineate the magnitude and extent of OE contamination for the areas identified in paragraph 2.3. The characterization shall produce sufficient information for the contractor to identify target anomalies, prepare risk assessments, evaluate alternatives for remediation, prepare cost analyses for each alternative, and recommend remediation alternatives. The contractor shall perform the first phase of site characterization for the area of concern as identified in this task order. The Phase I site characterization shall exclude removal of subsurface anomalies, except as delineated in the site-specific work plans. Typical activities that may be performed during the Phase I site characterization may include but are not limited to: historical data analysis, footprint reduction methodologies, field reconnaissance, assisted visual transects, and detection of OE. The performance of these activities may require surveying and mapping, brush clearing (including areas surrounding the grids), and/or removal and disposal or staging of surface OE or debris.

The contractor shall perform delineation transects in suspected high-density areas within the Alpha EE/CA area and within the M3-1L sector of the Bravo EE/CA area. For characterization of the M1.01 Parcel, the contractor shall utilize data gathered by other contractors under work being performed for the Eastern Bypass. For characterization of all areas, the contractor shall also use the historical data analysis and field reconnaissance information gathered under a separate task order and reported in the Field Reconnaissance and Conceptual Plan dated August 2000. The contractor shall provide security for the suspect chemical warfare materiel that was found during the surface clearance, assist in determining procedures and regulatory requirements for demolition, perform demolition of the item, perform soil sampling, prepare a report on the demolition, and shall relocate work areas outside of exclusions zones surrounding any suspect CWM.

3.4 <u>(TASK 4-Time and Materials) Data Analysis and Validation.</u> The contractor shall perform data validation for a subset of the subsurface anomalies identified during the Phase I site characterization. The contractor shall clearly identify his methodology. The contractor shall interrogate and excavate anomalies to validate his process. The description of terrain and vegetation and the assumptions regarding anomaly density given in Task 5 are applicable to this task. Typical activities that may be performed during data analysis and validation may include, but are not limited to: post-processing of geophysical data, reacquisition of selected anomalies, and excavating, identifying, and disposal of the selected anomalies. The contractor shall fabricate and mobilize two "Bud Lite" engineering control structures for use during the intrusive phase of the investigation, if required to minimize exclusion zones. The contractor may also be required to demobilize and relocate work areas outside of exclusions zones surrounding any suspect CWM.

3.5 <u>(TASK 5, OPTION 2 -Time and Materials) Phase II Site Characterization.</u> The contractor shall reacquire, excavate, identify, and dispose of a portion of the anomalies in grid areas not intrusively investigated in Tasks 3 or 4. The contractor shall

assume that Phase II Site Characterization shall consist of statistical sampling and analysis of 296.5 acres. For purposes of preparing a cost estimate the contractor shall assume:

- 142 acres are heavily wooded,
- 77 acres are moderately wooded
- 18 acres are open and 59.5 are lightly wooded,
- 125 acres are steeply sloped terrain,
- 111.5 acres are moderately sloped hilly terrain,
- 60 acres are flat terrain,
- All subsurface anomalies to be removed were identified during the discrimination portion of the Data Validation task.
- Each acre will require removal of 100 anomalies,
- Depth of anomalies will be from ***0.0*** feet to 4.0 feet, uniform distribution.
- ***Objective range for target anomalies will be*** *determined on a site-specific basis through data validation.*
- Five UXO per acre will be removed and disposed of,
- All recovered scrap shall be removed and disposed of in accordance with the basic contract.

The characterization from both phases shall produce sufficient information for the contractor to identify target anomalies, prepare risk assessments, evaluate alternatives for remediation, prepare cost analyses for each alternative, and recommend remediation alternatives.

3.6 <u>(TASK 6-Firm Fixed Price) Data Management.</u> The contractor shall manage all data in accordance with DID OT-FMC-005-14. This shall include incorporation of all reports, drawings, or data generated during this Task Order as well as mirroring all changes onto the Fort McClellan database located at USAESCH.

3.7 <u>(Task 7-Firm Fixed Price) PREPARE EE/CA REPORT.</u>

3.7.1 The Contractor shall prepare and submit three EE/CA reports in accordance with DID OE-010. The reports shall contain the Contractor's conclusions as to the nature and extent of OE contamination, risk assessments for each area of concern, and

provide recommendations for future work at Fort McClellan within these areas. The area of concern should be sufficiently characterized in the EE/CA. The textual portions of the report shall be fully supported with accompanying maps, charts, and tables as necessary to fully describe and document all work performed and all conclusions and recommendations presented. The M1.01 Parcel findings shall be contained in a stand-alone EE/CA document. The remaining Alpha Area and the Bravo Area shall comprise the other two EE/CAs. Information gathered by another contractor during the CWM EE/CA on the T-38 site and the R&S smoke ranges shall be incorporated into the Alpha area EE/CA and on the Old Burn Pit into the Bravo area EE/CA. The contractor shall evaluate information on ordnance found during actions taken by other contractors within the Alpha and Bravo areas and incorporate this information in the Bravo EE/CA report. The contractor will incorporate the new information into the Alpha EE/CA report, if the information impacts the recommended decisions already made in the Alpha EE/CA.

3.7.2 Evaluate Institutional Controls. The EE/CA reports shall fully evaluate physical removal and institutional controls as possible action alternatives. Basic data for the institutional analysis will be collected in accordance with DID OE-100

3.8 (TASK 8-Firm Fixed Price) PREPARE ACTION MEMORANDUM. The EE/CAs will be provided to the public for their review and comments. The Contractor shall evaluate any public comments provided by the Contracting Officer and shall incorporate them where directed by the Contracting Officer. Afterwards, the Contractor shall prepare an Action Memorandum for each of the three EE/CAs describing the selected alternative.

3.9 (TASK 9-Firm Fixed Price) MEETINGS/PUBLIC AFFAIRS. The Contractor shall attend and participate in nine meetings with DoD, regulatory, and civilian agencies as directed by the CO. The meetings shall last one day each and be held at Fort McClellan, AL. The Contractor shall assist USAESCH Public Affairs Office (PAO) and the Corps of Engineers, Mobile District PAO in developing and executing a Public Affairs program to include

public meetings and Restoration Advisory Board (RAB) meetings.

3.10 (Task 10) - Fixed Price) Delivery Order Administration. The Contractor shall provide all labor, facilities, equipment and materials to administer the Hazardous Pay Differential provisions of the Service Contract Act for all employees working under this Delivery Order.

4.0 SCHEDULE OF DELIVERABLES

4.1 Deliverables. The Contractor shall provide the indicated deliverables on the following schedule:

Deliverables	**Days after NTP**
Internal Draft M1.01 EE/CA	15 days after NTP
Draft M1.01 EE/CA	25 days after NTP
Draft Final M1.01 EE/CA	5 days after comments received
Draft M1.01 Action Memorandum	5 days after DF EE/CA received
Final M1.01 EE/CA	3 days after public meeting
Final M1.01 Action Memorandum	5 days after comments received
ASSHP	10 days prior
Draft Work Plan Alpha Area	20 days after award
Draft Work Plan Bravo Area	34 days after NTP
Final Work Plan Alpha Area, Bravo Area	5 days after comments received
Internal Draft EE/CA Report Alpha Area, Bravo Area	15 days after receipt of CWM EE/cA data
Draft EE/CA Report Alpha Area, Bravo Area	35 days after field work completed
Draft-Final EE/CA Report Alpha Area, Bravo Area	10 days after draft comments received
Final EE/CA Report Alpha Area, Bravo Area	1 day after public comments received
Action Memorandum-Draft Alpha Area, Bravo Area	10 days after F EECA received
Action Memorandum-Final Alpha Area, Bravo Area	10 days after draft comments received

Status Reports and Telephone/Conversation Reports are due monthly. The original of each of these reports shall be sent within 10 days of the end of the reporting period by normal mail to the project

manager.

4.2 Addresses and Distribution The Contractor shall furnish copies of the plans and reports as indicated to each addressee listed below in the quantities indicated. The following addresses shall be used in mailing submittals:

ADDRESSEE	Draft Submittals	Draft-Final & Final Submittals
Commander US Army Engineering and Support Center, Huntsville ATTN: CEHNC-OE-DC (Mr. Dan Copeland) 4820 University Square Huntsville, Alabama 35816-1822	6	6
Commander US Army Engineering and Support Center, Huntsville ATTN: CEHNC-CT-E (Ms. Evelyn Kelley) 4820 University Square Huntsville, Alabama 35816-1822	1	1
Commander US Army Engineer District, Mobile ATTN: CESAM (Mr. Ellis Pope) P.O. Box 2288 Mobile, AL 36628-0001	3	3
Commander US Army Engineer Division, South Atlantic ATTN: CESAD-PM-H (Ms. S. Ernst) 77 Forsyth St., SW Atlanta, GA 30335-6801	NA	1
ATTN: Mr. Doyle Brittain U.S. Environmental Protection Agency 61 Forsyth St, SW Atlanta, GA 30303-3104	3	3
Alabama Department of Environmental Management Government Facilities Section, Haz Waste Branch, Land Division ATTN: Mr. Phillip Stroud P.O. Box 301463 Montgomery, AL 36130-1463	3	3

U.S. Army Garrison ATTN: ATZN-ENV, Lisa Kingsbury 291 Jimmy Parks Blvd. Fort McClellan, AL 36205-5000	9	9

5.0 **SUBMITTALS and CORRESPONDENCE**

5.1 Format and Content of Reports. All drawings shall be of engineering quality with sufficient details. The report shall consist of 8 1/2" X 11" sheets of paper. The report covers shall consist of durable binders and shall hold pages firmly while allowing easy removal, addition, or replacement of pages. A title shall identify the site, the Contractor, the Huntsville Center, and date. The Contractor's identification shall not dominate the title page.

5.2 Review Comments. The Contractor shall review all comments received from the Contracting Officer or the Contracting Officer's Representative and evaluate their appropriateness based upon their merit. The Contractor shall incorporate all applicable comments and provide a written response to each comment no later than 21 days after the Contractor receives the comment.

5.3 Identification of Responsible Personnel. Each submittal shall identify the specific members and title of the subcontractor and Contractor's staff that had significant input into the report.

5.4 Presentations. The Contractor shall make presentations of work performed and as directed by the CO. The presentation shall consist of a summary of the work accomplished and will be followed by an open discussion.

5.5 Minutes of Meetings. The Contractor shall prepare and submit minutes of all meetings and/or presentations within 10 working days to the CO.

5.6 Correspondence. The Contractor shall keep a record of phone conversations and written correspondence affecting decisions relating to the performance of this task order. A summary of the phone conversations and copies of written correspondence shall be submitted to the CO with the monthly progress report.

5.7 Monthly Progress Report. The Contractor shall prepare and submit monthly progress reports in accordance with DID OT-FMC-080.

5.8 Digital Data. All final text files generated by the Contractor under this task order shall be furnished to the CO in Word 97, IBM PC-compatible format. All drawings shall be on reproducible (mylar) and digitized 3D design file in Intergraph Corporation format, compatible with USAESCH Graphics system. All field generated digital data shall be transmitted to the USAESCH technical representative on a weekly basis. The results of the excavations will include all pertinent features of the anomaly, to include items such as: type, condition, actual location, depth, size, mass, and any other information that would significantly assist in classifying the anomaly. The location in State Grid Plane Coordinates, the instrument response, anomaly code(s), and important information shall be provided in an Excel spreadsheet and data base listing, as a minimum; northing, easting, relative signal strength, measured signal strength, and any unusual of noteworthy attributes to facilitate excavation tracking. A standard structure and format shall be used to digitally track the results from the anomaly excavations.

6.0 **GOVERNMENT FURNISHED INFORMATION.** The government will provide the following information to the contractor for:

- Draft Archive Search Report for Fort McClellan, 1998
- Planimetric mapping and contour files for Fort McClellan
- Historical Photographic coverage for area identified in paragraph 2.3.

Upon award of the contract the government will also provide historical photo interpretation for the area identified in paragraph 2.3.

7.0 **PERFORMANCE METRICS.** The performance and subsequently the evaluation of the contractor on this task order shall be based on certain performance metrics. At the completion of the Task Order a board consisting of at least two government personnel and one

representative of the contractor will perform the contractor evaluation for approval by the CO or his designated representative. The contractor representative will be selected by the CO. Appraisals will be issued to support exercising subsequent option periods using AFARS 42.15 and ER 715-1-19.

7.1 Safety.

7.1.1. Class A Accidents. Any Class A accident, which is the result of a safety violation by the contractor, will result in an unsatisfactory safety and overall rating.

7.1.2 Accident Prevention. The contractor will receive an excellent, satisfactory, or unsatisfactory rating based on his compliance with the Approved Work Plan and other safety regulations and guidance as applicable. This will be determined by the number and severity of safety violations issued by the USACE Safety Specialist as indicated below.

7.1.2.1 Each major safety violation (life threatening, normally associated with activities involving OE, and any recordable accident as specified by paragraph 3-3, AR 385-40 with USACE Supplement).

7.1.2.2 Each minor safety violation (non-life threatening, normally associated with non-OE activities, and any reportable accident as specified by paragraph 3-2, AR 385-40 with USACE Supplement).

7.2 The contractor must achieve at least a satisfactory rating on all safety metrics to achieve an overall excellent appraisal rating on the Task Order.

7.3 Quality.

7.3.1. Documentation. The contractor will receive an excellent, satisfactory or unsatisfactory rating based on the quality of all documentation including digital data submitted by the contractor. Factors that may be considered in the evaluation are: technical content, format, readability, appearance, and responsiveness to comments.

7.3.2. Field Work.

7.3.2.1 Detection. The contractor will receive an excellent, satisfactory or unsatisfactory rating based on his

ability to detect target anomalies. This will be measured by the results of QA performed by the government or a representative of the government.

7.3.2.2 Reacquisition. The contractor will receive an excellent, satisfactory or unsatisfactory rating based on his ability to accurately determine the location of anomalies.

7.3.3 Processes. The contractor will receive an excellent, satisfactory or unsatisfactory rating based on the effectiveness of his processes utilized on the project. Factors that may be considered in the evaluation are: accuracy of characterization of areas potentially contaminated with OE, data capture, data management, teamwork, and integration of all processes utilized.

7.4 Schedule. The contractor will be rated on his ability to meet schedules on Final deliverables. This will be measured as a percentage of deliverables for this Task Order received on time. Schedule slippage beyond the control of the contractor shall be documented by the CO and new schedules shall be established with approval of the government.

7.5 Customer Satisfaction. A customer satisfaction survey developed by government with input from the contractor will be sent to the contractor's customers who have been directly involved with part of the work performed under this Task Order. The contractor will be rated on each criterion using a scale of one to five. A cumulative score from one to five will be generated from the results of all the surveys.

7.6 Objective Metrics. The following objective metrics will be used for this Task Order to determine the contractor's performance appraisal. Subjective metrics will be evaluated on a qualitative basis.

	Excellent	**Satisfactory**	**Unsatisfactory**
Safety			
Class A Accident Contractor at Fault	0		1
# Major Safety Violations	0	1	>1
# Minor Safety Violations	1	2-4	>4
Quality			

Detection (% Grids Passing QA)	>99	95-99	<95
Reacquisition (% within +/- 0.5m)	>95	95-75	<75
Schedule			
Final Deliverables (% on schedule)	100	75-99	<75
Customer Satisfaction			
Customer Satisfaction Survey (rating)	>4.5-5	3-4.5	<3

7.7 Incentives. Incentives shall be awarded to the contractor when he achieves a satisfactory or better performance rating on all of the Safety metrics and an excellent performance rating on at least 80% of the metrics for that Task Order. Incentives for excellent performance may include but are not limited to:

1. Letters/Certificates of Commendation presented in public ceremonies by high level USAESCH officials
2. Write-ups in USACE publications
3. Posting of contractors "excellent" performance on the Huntsville Center's home page
4. Exercising Option year on contract

7.8 The government reserves the right to give incentive awards for specific acts, within specific areas or to specific individuals as well as on a Task Order basis. Areas that will be given special consideration when determining if incentives are merited are safety, innovation, and continuous improvement.

7.9 Satisfactory Rating. The contractor shall receive a satisfactory rating on this task order if he achieves a satisfactory of better performance rating on all the Safety metrics and a satisfactory rating on at least 80% of the metrics for this task order.

7.*10* Performance Improvement Plan. Any time the contractor receives an unsatisfactory rating on any performance metric, he

will be required to develop a Performance Improvement Plan to correct any deficiencies in that area.

7.11 Disincentives. Disincentives for poor performance may include but are not limited to:

1. Poor Performance Appraisals
2. Awarding follow on Task Order work to others
3. Not exercising Option years
4. Redoing unsatisfactory work at no cost to the government
5. Reporting the level of performance to higher level USAESCH authorities, including the Director of Contracting and the Commander

8.0 **Public Affairs.** The Contractor shall not publicly disclose any data generated or reviewed under this contract unless authorized by the CO. The Contractor shall refer all requests for information concerning the site condition to the USAESCH Project Manager. Reports and data generated under this task order are the property of the Department of Defense and distribution to any other sources by the Contractor, unless authorized by the CO, is prohibited.

9.0 **REFERENCES.**

9.1 Archives Search Report for Fort McClellan, St. Louis District, 1999.

9.2 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, Public Law (PL)96-510, 94 Stat 2767, 42 USC 9601.

9.3 NIOSH/OSHA/USCG/EPA Manual for Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Oct. 85.

9.4 HQUSACE Letter, DACS-SF, Explosives Safety Policy for Real Property Containing Conventional Ordnance and Explosives.

9.5 HQDA Policy Memorandum, Interim Guidance for Biological Warfare Materiel (BWM) and Non-stockpile Chemical Warfare Materiel (CWM) Response Activities, 5 Sep 97.

9.6 EP 1110-1-18, Draft OE Response

ADEM APPROVAL LETTER

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 ♦ 1400 COLISEUM BLVD. 36110-2059
MONTGOMERY, ALABAMA 36130-1463
WWW.ADEM.STATE.AL.US
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JAMES W. WARR
DIRECTOR

DON SIEGELMAN
GOVERNOR

Facsimiles: (334)
Administration: 271-7950
General Counsel: 394-4332
Air: 279-3044
Land: 279-3050
Water: 279-3051
Groundwater: 270-5631
Field Operations: 272-8131
Laboratory: 277-6718
Mining: 394-4326
Education/Outreach: 394-4383

RECEIVED MAR 01 PM 1:59

February 27, 2001

Ronald M. Levy
BRAC Environmental Coordinator
US Army Garrison/Transition Force
Environmental Office, 291 Jimmy Parks Blvd.
Fort McClellan, Alabama 36205

RE: ADEM's Concurrence on the Final Site-Specific Work Plan, Alpha Area, Ordnance and Explosives Response, Delivery Order 0001, Modification 02, Contract Number DACA87-99-D-0010, February 21, 2001, Fort McClellan, Alabama

Dear Mr. Levy:

The Alabama Department of Environmental Management has received and reviewed the incorporated comments into the Final Site-Specific Work Plan, Alpha Area, Ordnance and Explosives Response, Delivery Order 0001, Modification 02, Contract Number DACA87-99-D-0010, February 21, 2001, Fort McClellan, Alabama. We agree that the comments have been adequately addressed. Based on our review, we concur with the submittal and offer no comments for Army review.

For any questions or concerns regarding this matter please contact me at 334-271-7750 or email at mailto:pns@adem.state.al.us.

Sincerely,

Philip N. Stroud
Governmental Facilities Section
Hazardous Waste Branch
Land Division

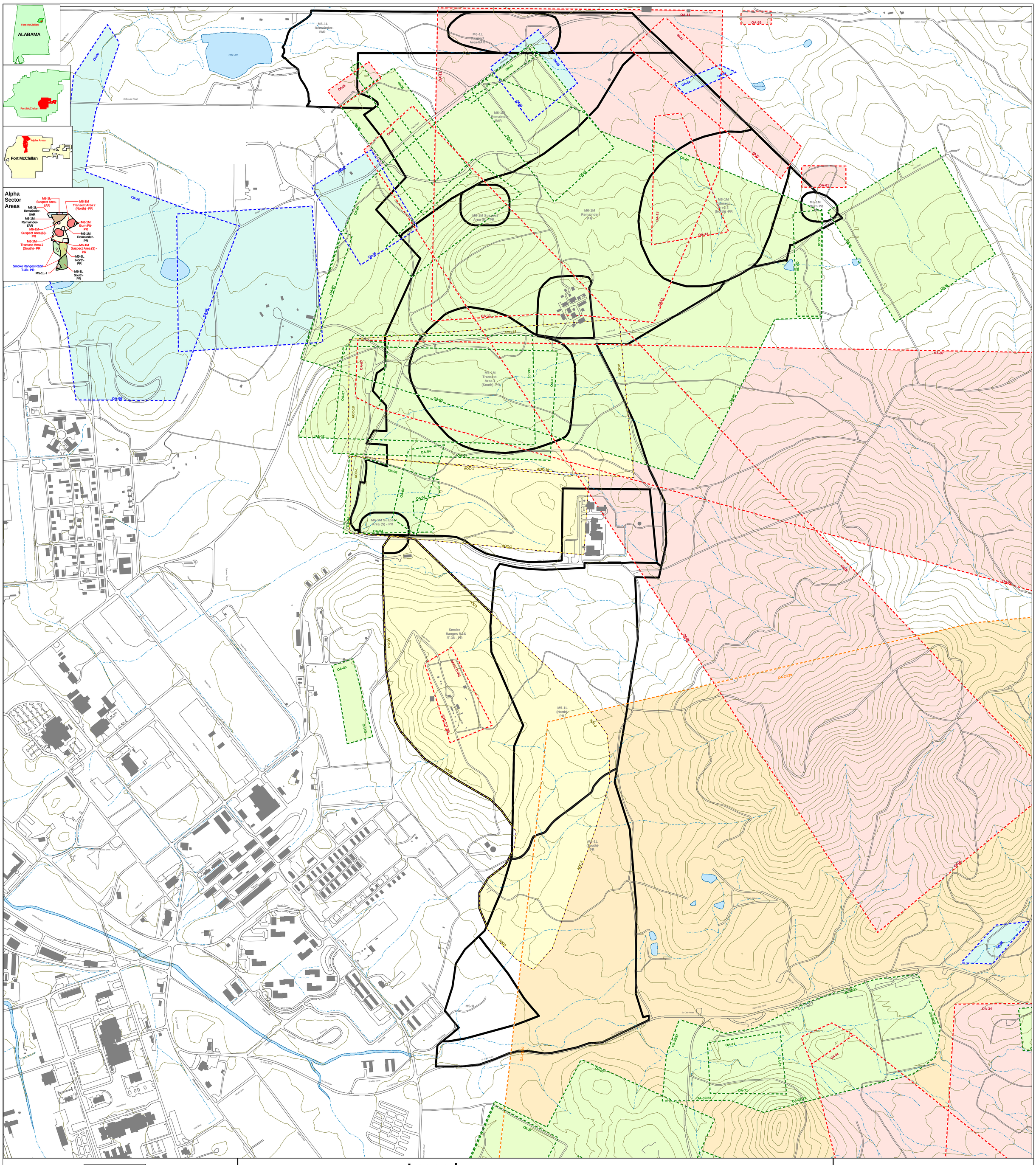
PNS/

cc: Doyle Brittain, EPA Region 4
Ellis Pope, USAC

APPENDIX B

FIGURES OF THE ALPHA AREA:

- ALPHA AREA EE/CA RANGES AND IMPACT AREAS
- ALPHA AREA EE/CA OVERVIEW



N
W E
S

0 200 400 600 800 1000 1200 ft

SCALE: 1" = 400'

Contour Interval = 25 ft.

Alabama State Plane, East (Zone 101)
NAD 83

Legend

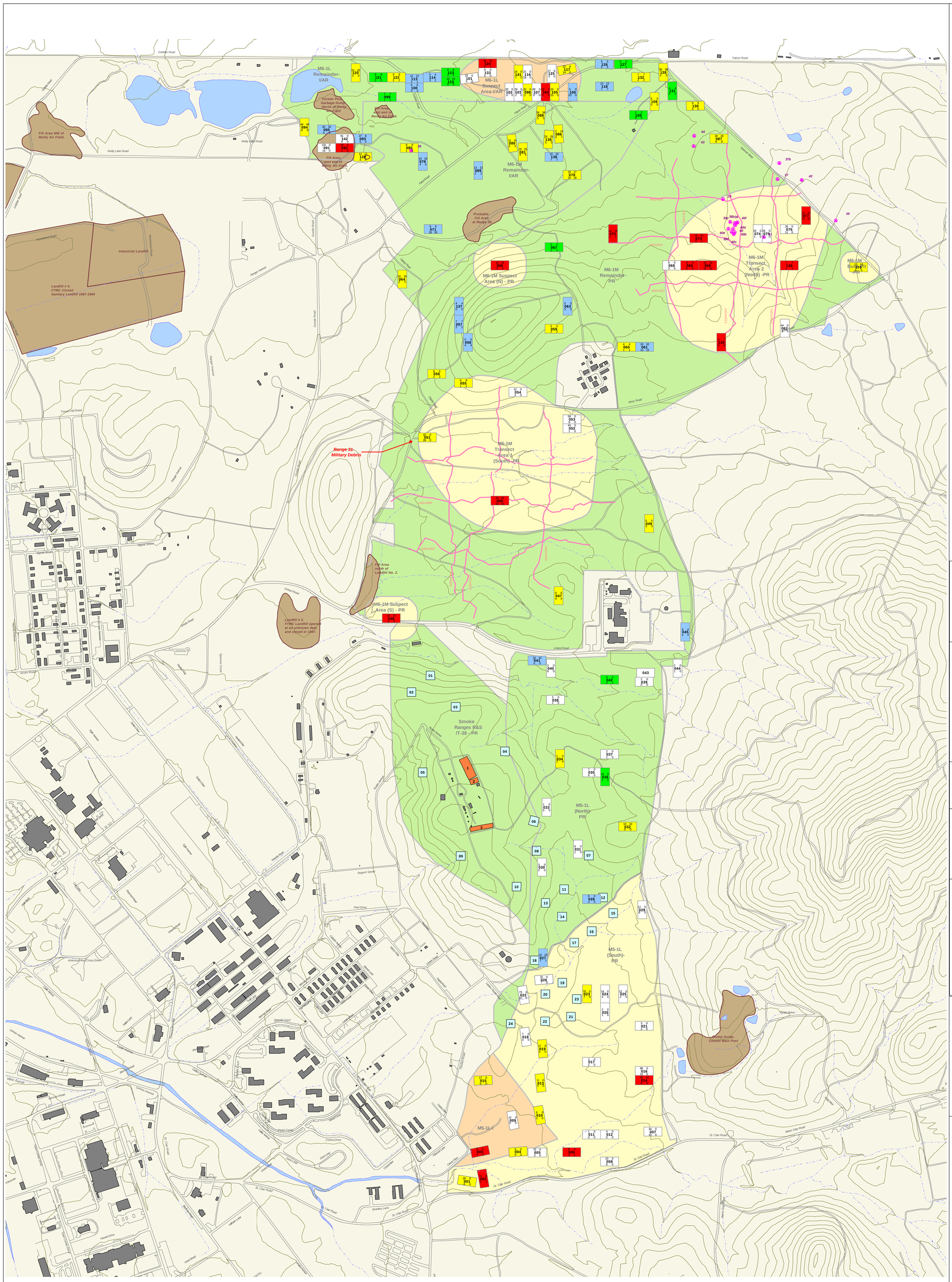
- Alpha Sectors
- Streams (Intermittant)
- Lakes, Ponds, and Creeks
- Small Arms Ranges
- Chemical Ranges and Training Areas
- Training Areas
- Possible Artillery Impact Area
- Possible Explosive Ordnance Impact Areas

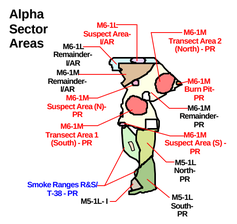
Alpha Area EE/CA Ranges and Impact Areas

Fort McClellan, Calhoun County
Anniston, Alabama

September 2003

FOSTER WHEELER ENVIRONMENTAL CORPORATION





LEGEND

- Military Debris Finds
- IT Corporation Finds
- Delineation Transect Paths

Grids by Target Type

- UXO
- OE Scrap
- Small Arms
- Non OE Scrap
- No Intrusive Operations

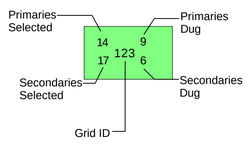
- T-38 Grids
- Parsons' Grids

Alpha Sectors by Recommended Clearance

- Clearance to 1ft
- Clearance to Depth
- NFA

- 25' Contour Lines
- Streams
- Lakes/Ponds
- Landfills
- Alpha Sector Boundaries
- Fort McClellan

Grid Example



0 200 400 600 800 1000 1200 ft

SCALE: 1" = 400'

FOSTER WHEELER ENVIRONMENTAL CORPORATION

ALPHA AREA EE/CA OVERVIEW

Fort McClellan, Calhoun County
Anniston, Alabama

September 2003

Quality Assurance Audit Evaluation

On

Foster Wheeler Environmental Corporation

Digital Geophysical Survey Results

For The Alpha Area EECA of Ft. McClellan

Anniston, Alabama

R. J. Selfridge

Chief Geophysicist

U.S. Army Corps of Engineers

Engineering and Support Center, Huntsville

CEHNC-ED-CS-G

February 12, 2003

V1

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- **3.2 Government Field Oversight of Data Acquisition and Data Processing Operations**
- **3.3 Government Review of Digital Geophysical Data**
- **3.4 Comparison of Excavation Results with Geophysical Data Results**

4.0 Quality Assurance Audit Summary

APPENDICES

A. Government Geophysical QA Maps of Select areas within the Alpha Study Area.

1.0 Executive Summary

A Government Quality Assurance Audit was performed on the UXO Geophysical Investigation Process performed on the Alpha area of land at Ft. McClellan in Anniston, Alabama. The Alpha area encompasses all or portions of the M5 and M6 parcels in the north central portion of Fort McClellan. The area investigated was divided into three sampling sectors totaling 847 acres. The area is moderately to heavily wooded with level to moderate slopes. This report documents the specific processes used to ensure that the Product delivered by the contractor meets the projects Data Quality Objectives as outlined in the Task Order. This Audit concentrated on the following four (4) major Quality Control Elements to verify acceptable contractor performance:

1.) Acceptable Geophysical Prove-out Results
2.) Passed Government Field Oversight Inspection of Data Acquisition and Data Processing Operations
3.) Successfully passed Government Review of Digital Geophysical Data
4.) Satisfactory Comparison of Excavation Results with Geophysical Data Results

The contractor was successful in meeting all of these Quality Control Elements but a previously unknown factor complicated the process. An electronic interference was generated by the ultrasonic data collection and navigation system that intermittently produced noise within the EM61 detector data. The contractors Quality Control (QC) process (as well as the government Quality Assurance process utilizing the draft data) was successful in detecting the problem and alerted the Site and Project Geophysicists to the deficiency. All data files were reviewed to evaluate which ones had interference levels severe enough to potentially affect data interpretation and that data was re-collected.

This complication increased data collection time and project costs due to the number of grids that had to be re-done but the contractor did not allow this factor to degrade data quality.

2.0 Introduction

The purpose of this Government Quality Assurance Audit is to document the specific processes used and the results attained for the Ft. McClellan Alabama – Alpha EECA - Ordnance and Explosive Geophysical Investigation. The general objective of the geophysical investigations was to efficiently characterize the metallic targets and assist in delineating areas of potential OE concern while complying with applicable laws, regulations, and sound technical practices. This audit evaluates the effectiveness of the Contractors Quality Control Program, processes and compliance of work-by-others.

3.0 Quality Assurance Audit Elements

The Government Geophysical Quality Assurance Inspection Audit provides a documentable process that effectively monitors the contractors performance in the areas of;

a.) Initial data acquisition, processing and interpretation,

b.) Target anomaly reacquisition and excavation.

The Inspection Audit is a multi-layered approach that verifies whether the contractors team is performing the OE Detection and Characterization operations to an acceptable standard. Any failure resulting from this audit by the contractor will result in a detailed review of the affected Data Quality Control Elements followed by immediate remediation of the identified failures. This Audit concentrated on four (4) major Quality Control Elements to verify acceptable contractor performance.

3.1 Geophysical Prove-out Results

The Contractor was selected for the Ft. McClellan Project in the spring of 1999 by performance based contracting based in part for their superior performance on the Demonstration Test Grid. This test grid was located adjacent to a target area within Range 16 and consisted of both existing ordnance and ordnance seeded on the grid by the Huntsville Corps of Engineers. Foster Wheeler Environmental Corporation finished first in this competition against three other Finalists (a total of 50 companies competed for this award). This Demonstration grid was used as the

Geophysical Prove-out for the work performed by the Foster Wheeler Team in the Spring/Summer of 2000.

3.2 Government Field Oversight of Data Acquisition and Data Processing Operations

The Huntsville Corps of Engineers Chief Geophysicist performed three separate field oversight operations during the Alpha EECA geophysical mapping project. A partial listing of the items checked for and optimized during this pre-operation check included:

Safety

-Use buddy system

-Pre-sweep area for surface ordnance

-No stakes w/o safety inspection

-Obey exclusion and decontamination zone boundaries

-Use radios coordinated with geophysical data collection

-Wear boots with fiberglass rather than steel toe protection

EM Specific check items

-Establish instrument-nulling station

-Secure cable leads

-Sweep operator and assistant with Schonstedt

-Check battery levels

-Check cable and connector integrity

-Warm up sensors prior to recording

-Null instruments at nulling station

-Conduct stationary noise level test

-Document amplitude gain with uniform test object

-Evaluate survey standardization line in both directions once each day

-Evaluate survey standardization line at each equipment change

-Maintain consistent ground clearance and coupling while surveying

Function Test Line

-Purpose: to ensure instrument is operating consistently over the life of the project, to ensure that any equipment or operator changes do not affect the results, to establish instrument repeatability baseline

-Establish line convenient to grid (either GPO or Survey)

-Survey line with all instruments prior to locating targets

-Note type, orientation and position of targets in field log

-If targets are swapped, survey immediately before and after for control

Nulling Station

-Purpose: an electromagnetically quiet area to consistently null instruments prior to surveying

-Should be convenient to grid

-Sweep with all EM instruments to be used at the site before finalizing

-Mark location clearly

-Clearly mark desired instrument direction

-Can also be used to calibrate amplitude gain if mobile test source is used

Stationary Receiver locations

-Purpose: a base reference network to facilitate ultra sonic positioning measurements

-Establish SR locations

-Operational modes: data logging combined or separate from geophysics

-Obtain permission to use radio frequencies necessary for RT link

-Verify full radio link coverage over entire area

-Test geophysical signatures of positioning sensor with pull away test (power off)

-Test geophysical signature of positioning electronics with detector power up

-Periodically test data synch at start and end of day to check for clock drift
-Calculate data lag on standardization line at various speeds
-Measure positional lag (separate from time lag) between Ultrasonic transmitter and instrument location

Survey grid
-Locate grid corners and ensure the grid is square
-Measure corner positions with the digital data positioning system being used
-Maintain logical and consistent file naming conventions
-Document naming convention and data structures in field log book

Data processing
-Make duplicate copies of all raw data as soon as possible
-Maintain logical and consistent file naming conventions
-Document naming convention and data structures in field log book
-Develop decision criteria for target selection (from GPO) and pick targets for dig list

3.3 Government Review of Digital Geophysical Data

Geophysical data was transmitted on an approximately weekly basis from FWEC to CEHNC for review. Digital data was checked for location accuracy, lag corrections, leveling corrections, proper filtering and determination of usability based on noise recorded within the EM61 data. A random selection of grids was reprocessed and dig lists made and compared to FWEC dig lists. Examples of the data are contained in Appendix A. Government QA Dig lists were comparable to FWENC dig lists.

3.4 Comparison of Excavation Results with Geophysical Data Results

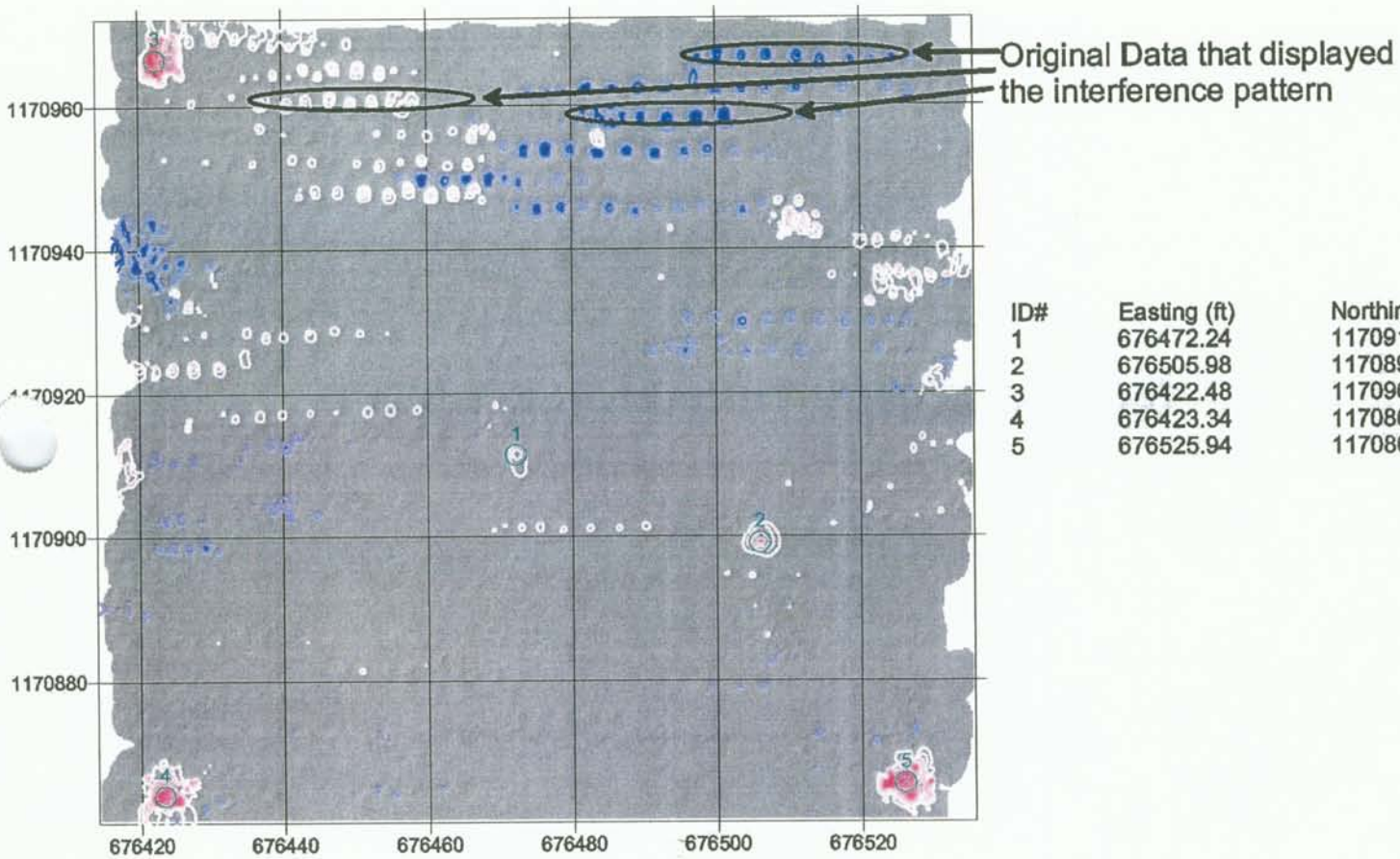
The recovered targets from the selected grid anomalies compared favorably with the recorded geophysical response.

4.0 Quality Assurance Audit Summary

The contractor was successful in meeting all of these Quality Control elements but a previously unknown factor complicated the process. An electronic interference was generated by the Ultrasonic Data collection and navigation system that intermittently produced noise within the EM61 detector data. The contractors Quality Control (QC) process (as well as the government Quality Assurance process utilizing the draft data) was successful in detecting the problem and alerted the Site and Project Geophysicists to the deficiency. All data files were reviewed to evaluate which ones had interference levels severe enough to potentially affect data interpretation and that was re-collected. This complication increased data collection time and project costs due to the number of grids that had to be re-done but the contractor did not allow this factor to degrade data quality.

APPENDIX A. Geophysical Maps of Resurveyed areas.

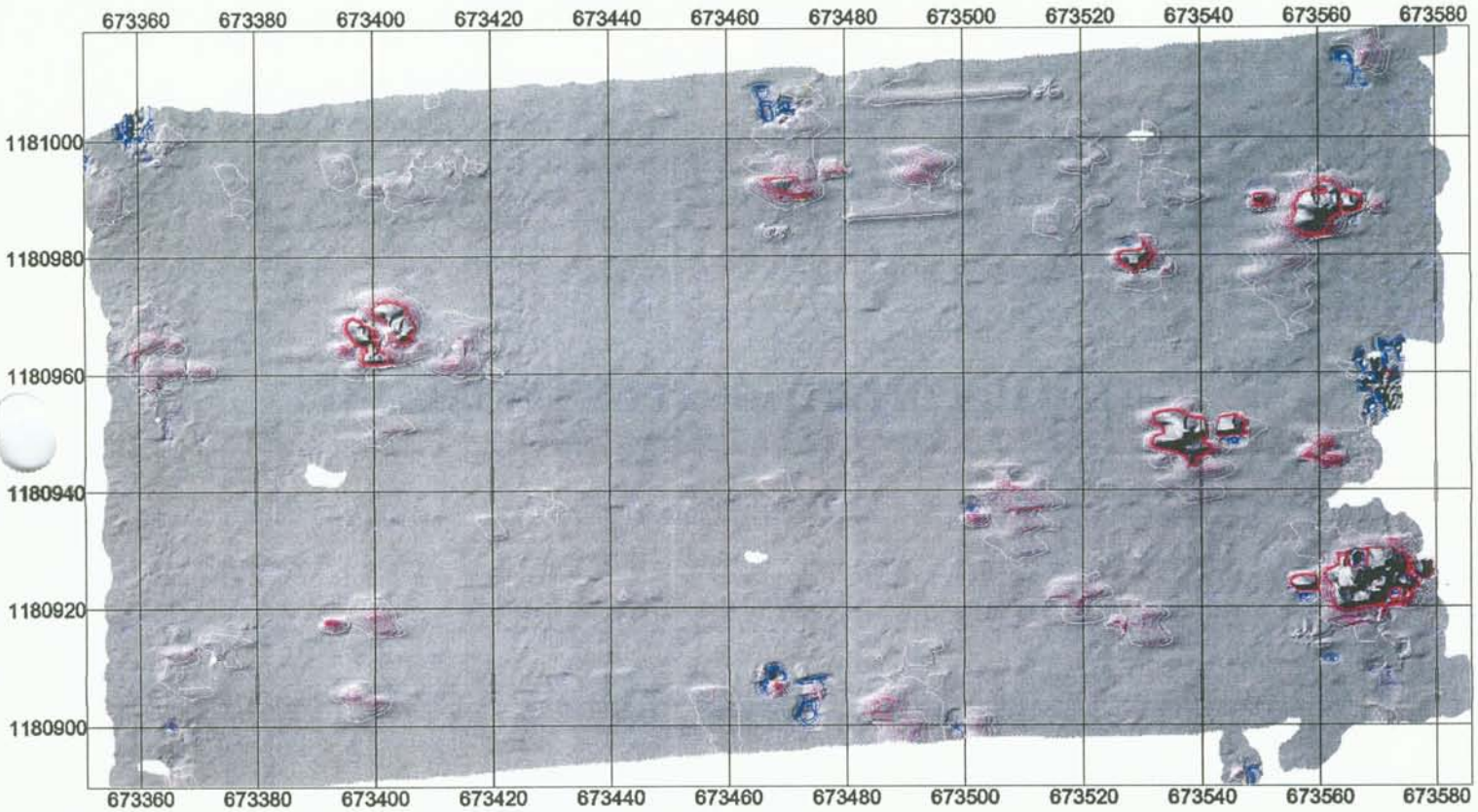
Fort McClellan, AL - Foster Wheeler Environmental Corporation - Deliv 1, A020 - Grid 020m26.xyz



ID#	Easting (ft)	Northing (ft)
1	676472.24	1170911.35
2	676505.98	1170898.99
3	676422.48	1170966.45
4	676423.34	1170863.85
5	676525.94	1170865.53

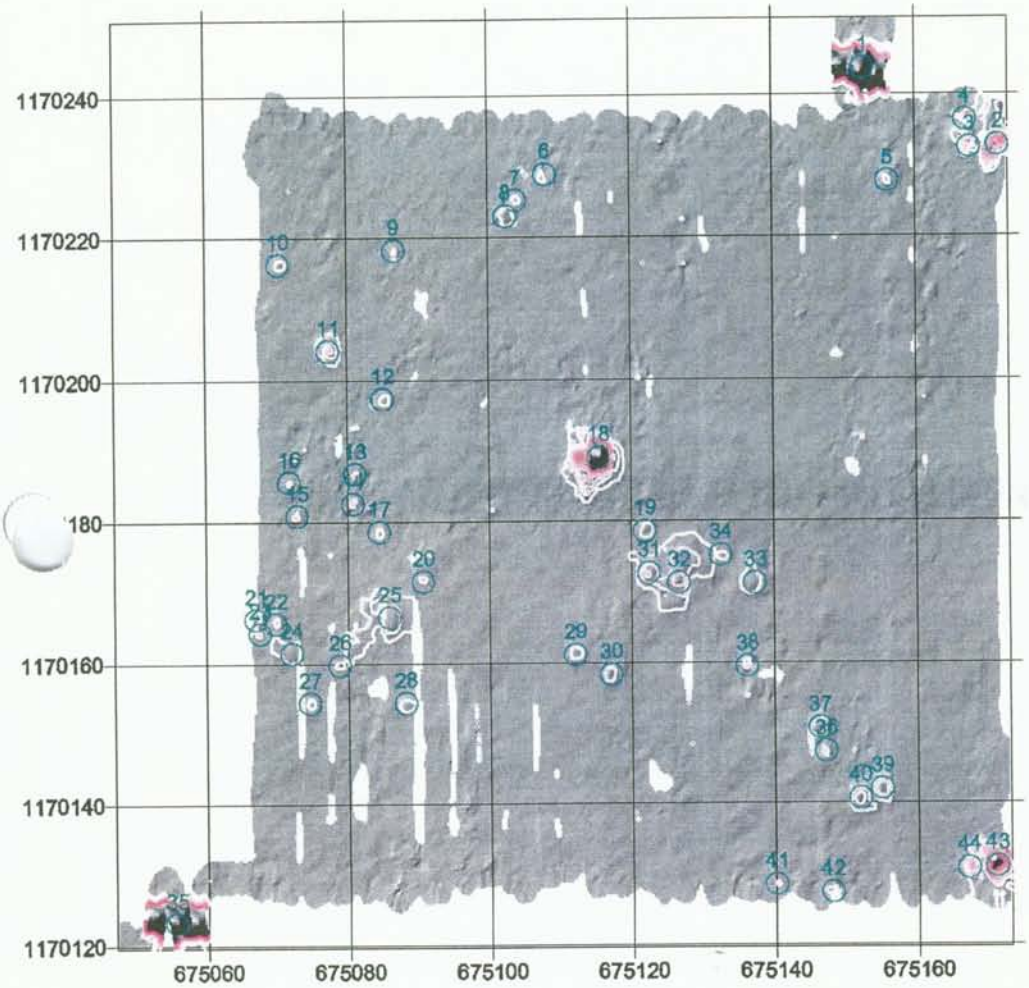
EM61 CH2 Data - Processed 05/29/2001 by DWP

Fort McClellan, AL - Foster Wheeler Environmental Corporation - Deliv 2, 092m19d.xyz



EM61 CH2 Data - Processed 06/29/2001 by RJS

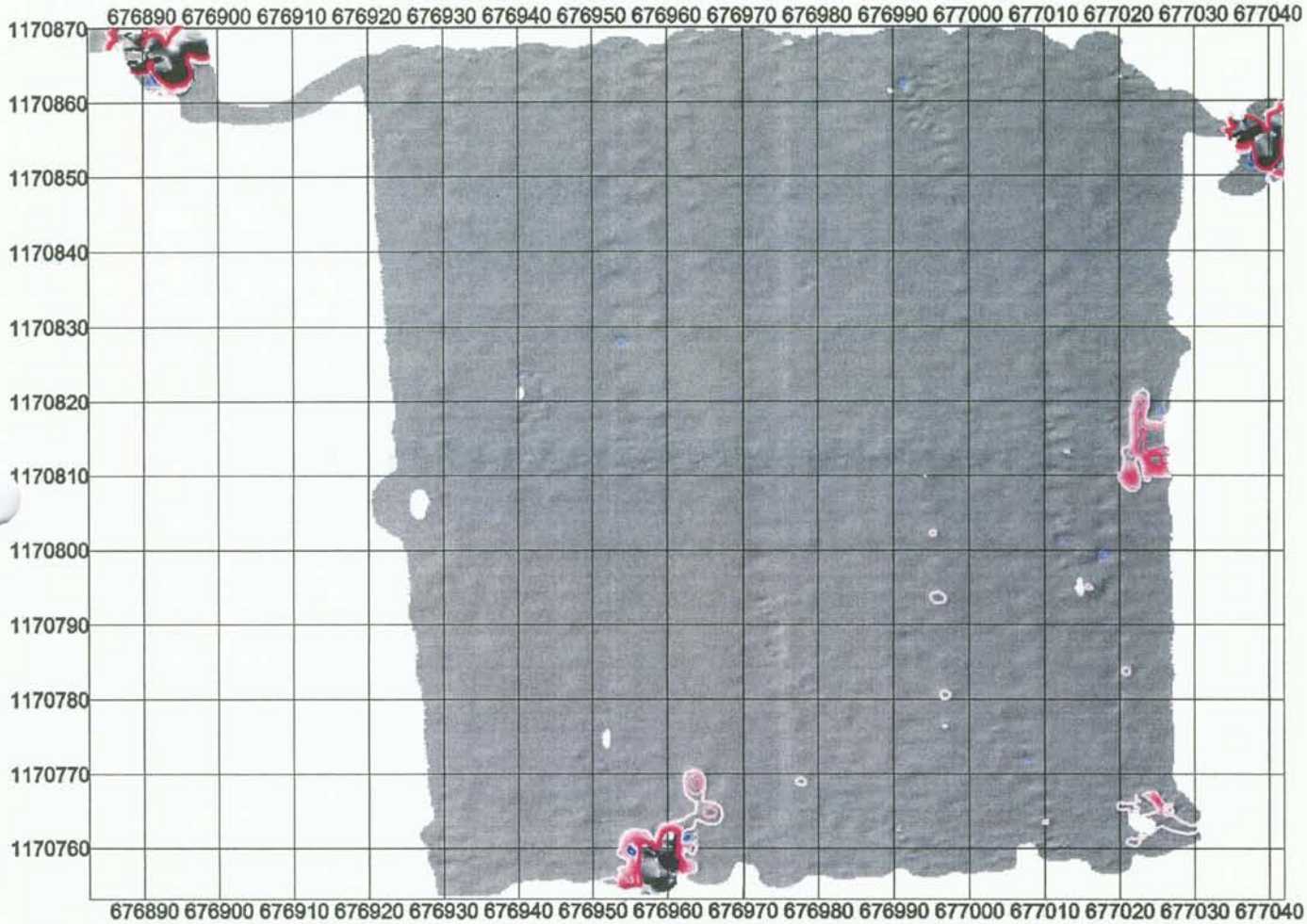
Fort McClellan, AL - Foster Wheeler Environmental Corporation - Deliv 7, A015 - Grid 015a30.xyz



EM61 CH2 Data - Processed 05/30/2001 by DWP

ID#	Easting (ft)	Northing (ft)
1	675152.805	1170243.715
2	675171.645	1170232.755
3	675167.705	1170232.455
4	675167.145	1170236.395
5	675156.185	1170227.695
6	675108.105	1170228.815
7	675103.885	1170225.155
8	675102.485	1170222.915
9	675086.745	1170218.135
10	675070.445	1170216.155
11	675077.465	1170204.075
12	675085.065	1170197.335
13	675081.125	1170186.655
14	675080.845	1170182.435
15	675072.965	1170180.735
16	675071.845	1170185.515
17	675084.505	1170178.495
18	675115.425	1170188.895
19	675121.885	1170178.495
20	675090.685	1170171.475
21	675067.065	1170166.135
22	675069.885	1170165.555
23	675067.625	1170164.155
24	675072.125	1170161.355
25	675085.905	1170166.415
26	675078.885	1170159.655
27	675074.665	1170154.315
28	675088.145	1170154.315
29	675112.045	1170161.075
30	675117.105	1170158.255
31	675122.445	1170172.595
32	675126.665	1170171.195
33	675137.345	1170171.195
34	675132.565	1170175.115
35	675055.545	1170123.115
36	675147.185	1170147.295
37	675146.345	1170150.675
38	675136.225	1170159.375
39	675155.045	1170141.955
40	675151.965	1170140.555
41	675140.165	1170128.455
42	675148.025	1170127.335
43	675171.085	1170130.995
44	675167.145	1170130.715

Fort McClellan, AL - Foster Wheeler Environmental Corporation - Deliv 6, A021A25cb.xyz



EM61 CH2 Data - Processed 06/29/2001 by RJS

APPENDIX D

INTRUSIVE RESULTS

Alpha EE/CA Intrusive Data

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
A001					
	1	M51L	OE Scrap	(2) projectile, 75mm, shrapnel	75mm
A002					
	1	M51L	OE	(1) projectile, 75mm, HE, M48 not fired	75mm
	2	M51L	OE Scrap	(2) signal, ground, illumination	other
	3	m51L	Non OE Scrap	(1) horse shoe	NA
	4	m51L	Non OE Scrap	(1) foil bag	NA
	5	m51L	Non OE Scrap	(1) metal cylinder	NA
	6	m51L	Non OE Scrap	(1) fence post	NA
	7	m51L	OE Scrap	fuze debris	NA
	8	m51L	Non OE Scrap	(1) horse shoe	NA
	14	m51L	OE Scrap	(1) shrapnel round pusher plate, 75mm, MK 1	75 mm
A003					
	1	M51L	OE Scrap	(1) signal, ground, illumination	other
	2	M51L	UXO	(1) Livens, proj., FM smoke, Mk1	other
A004					
	1	M51L	OE Scrap	(1) grenade, practice, M2	other
A006					
	1	M51L	OE Scrap	(1) projectile, 3.8in, shrapnel	3.8in
	2	m51L	Non OE Scrap	(1) horse shoe, (1) axe head, wire, nails, scrap metal	NA
	2	M51L	UXO	(1) projectile, 3.8in, shrapnel	3.8in
	4	m51L	Small Arms	(1) small arms, projectile, 30cal	other
	4	m51L	Small Arms	(1) small arms, projectile, 30cal	other
	8	m51L	Small Arms	(2) small arms, projectile, 30cal	other
	8	m51L	Small Arms	(1) small arms, projectile, 30cal, scrap metal	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	9	m51L	Small Arms	(6) small arms, projectile, 30cal	other
	11	m51L	Non OE Scrap	(1) nail, scrap metal	NA
A010					
	1	M51L	OE Scrap	(4) signal, ground, illumination	other
A013					
	1	M51L	OE Scrap	(1) projectile, 3.8in, shrapnel	3.8in
	2	M51L	OE Scrap	signals, ground, illumination	other
A014					
	1	m51L	Non OE Scrap	(1) horse shoe	NA
	1	M51L	UXO	(1) mortar, 4in stokes, WP, MK2	4.2in
	2	m51L	Non OE Scrap	(1) pipe	NA
	9	m51L	Non OE Scrap	(1) bolt	NA
	9	m51L	Small Arms	small arms, projectiles (1) 50cal, (2) 30cal	other
	14	m51L	Non OE Scrap	wire	NA
	15	m51L	Non OE Scrap	horse shoe, scrap metal	NA
	16	m51L	OE Scrap	(1) mortar base debris, 4.2in, M2	4.2 inch
	18	m51L	Non OE Scrap	(1) horse shoe	NA
	18	m51L	OE Scrap	frag, unknown	NA
	20	m51L	OE Scrap	(1) mortar base debris, 4.2in, M2	4.2 inch
	20	m51L	OE Scrap	(1) mortar debris, 4.2in, white phosphorus, M2A1	4.2 inch
	21	m51L	Non OE Scrap	(1) horse shoe	NA
	21	m51L	Non OE Scrap	(1) horse shoe	NA
	23	m51L	Small Arms	(1) small arms, projectile, 30cal	other
	24	m51L	Non OE Scrap	(1) hoe head	NA
	26	m51L	Non OE Scrap	(1) nail	NA
	27	m51L	Non OE Scrap	(2) wires	NA
	27	m51L	Small Arms	(2) small arms, projectile, 30cal	other
	32	m51L	OE Scrap	(1) mortar fuze, stokes, MK VI	3 inch

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
A015					
	1	M51L	OE Scrap	(1) smoke pot	unknown
	2	M51L	Small Arms	small arms casings	other
A019					
	1	m51L	OE Scrap	(1) rifle grenade tailboom debris, rifle, M9A1	other
	1	m51L	Non OE Scrap	(1) nail	NA
	2	m51L	Non OE Scrap	(5) nails	NA
	3	m51L	Non OE Scrap	(1) plow point	NA
	6	m51L	NA	part of anomaly A019007	NA
	7	m51L	Non OE Scrap	wire	NA
	12	m51L	Non OE Scrap	(1) horse shoe	NA
	13	m51L	Non OE Scrap	wire mesh	NA
	15	m51L	Non OE Scrap	(1) hoe head	NA
	18	m51L	Small Arms	(1) small arms, projectile, 30cal	other
A023					
	1	M51L	OE Scrap	(1) projectile, 75mm, HE, M48	75mm
A027					
	1	M5-1L	Non OE Scrap	nails	NA
	2	M5-1L	Non OE Scrap	(1) cornerstake	NA
	3	M5-1L	Non OE Scrap	cable grown into tree	NA
	4	M5-1L	Non OE Scrap	(1) 48' rebar	NA
	5	M5-1L	Non OE Scrap	part of anomaly A027004	NA
	6	M5-1L	Small Arms	brass, nails	other
	7	M5-1L	Small Arms	brass, nails	other
	8	M5-1L	Non OE Scrap	(3) nails	NA
	9	M5-1L	Non OE Scrap	(6) nails	NA
	10	M5-1L	Non OE Scrap	(2) beer cans	NA
	11	M5-1L	Non OE Scrap	(1) 18' rebar, 2ft sq sheet metal	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	12	M5-1L	Non OE Scrap	part of anomaly A027011	NA
	13	M5-1L	Non OE Scrap	(1) 2'x3' sheet metal	NA
	14	M5-1L	Non OE Scrap	(1) board w/ nails	NA
	15	M5-1L	Non OE Scrap	nails	NA
	16	M5-1L	Non OE Scrap	misc scrap metal	NA
	17	M5-1L	Non OE Scrap	trash pit	NA
	18	M5-1L	Non OE Scrap	trash pit	NA
	19	M5-1L	Non OE Scrap	trash pit	NA
	20	M5-1L	Non OE Scrap	trash pit, (1) pipe	NA
	21	M5-1L	Non OE Scrap	canvas bow 2 1/2 ton truck	NA
	22	M5-1L	Small Arms	(1) brass	other
	23	M5-1L	Small Arms	(2) brass	other
	24	M5-1L	Small Arms	(1) brass	other
	25	M5-1L	Small Arms	(1) brass	other
	26	M5-1L	Small Arms	(1) brass	other
	27	M5-1L	Small Arms	(1) brass, (2) beer cans	other
	28	M5-1L	Non OE Scrap	(1) quick release pin	NA
	29	M5-1L	Small Arms	(1) brass	other
A028					
	1	M51L	Small Arms	small arms	other
A032					
	1	M5-1L	Non OE Scrap	part of anomaly A032003	NA
	2	M5-1L	Non OE Scrap	(16) large nails	NA
	3	M5-1L	Non OE Scrap	(11) large nails	NA
	4	M5-1L	Non OE Scrap	(20) large nails	NA
	5	M5-1L	Non OE Scrap	(20) large nails	NA
	6	M5-1L	Small Arms	brass	other
	7	M5-1L	Non OE Scrap	(12) large nails	NA
	8	M5-1L	OE Scrap-M	(1) grenade, practice	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ora Size
	9	M5-1L	Non OE Scrap	part of anomaly A032010	NA
	10	M5-1L	Non OE Scrap	(15) nails	NA
	11	M5-1L	Non OE Scrap	part of anomaly A032010	NA
	12	M5-1L	Non OE Scrap	(8) nails, metal chunk	NA
	13	M5-1L	Non OE Scrap	(1) horseshoe	NA
A034					
	1	M5-1L	OE Scrap	(1) signal, ground, illumination	other
A036					
	2	M5-1L	Non OE Scrap	(8) nails, metallic rocks	NA
	3	M5-1L	NA	part of anomaly A036002	NA
	7	M5-1L	Non OE Scrap	(5) nails	NA
	11	M5-1L	Non OE Scrap	(3) metallic rocks	NA
	12	M5-1L	Non OE Scrap	(2) nails	NA
A041					
	1	M5-1L	Non OE Scrap	(1) water main access pipe	NA
	2	M5-1L	Non OE Scrap	(1) diesel fuel filter	NA
	3	M5-1L	Non OE Scrap	(1) metal rod	NA
	4	M5-1L	Small Arms	(1) small arms, projectile, 30cal	other
	5	M5-1L	Small Arms	(1) small arms, projectile, 30cal	other
	6	M5-1L	Non OE Scrap	(1) anchor and guy wire for telephone pole	NA
	7	M5-1L	Non OE Scrap	(1) horseshoe	NA
	8	M5-1L	Small Arms	(1) small arms, projectile, 30cal	other
	9	M5-1L	Non OE Scrap	wire	NA
	10	M5-1L	Small Arms	(1) small arms, projectile, 30cal	other
A042					
	1	M5-1L	Non OE Scrap	trash pit	NA
	2	M5-1L	Non OE Scrap	part of anomaly A042001	NA
	3	M5-1L	Non OE Scrap	(1) piece of horse shoe	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	4	M5-1L	Non OE Scrap	(1) metal bar	NA
	5	M5-1L	Non OE Scrap	part of anomaly A042006	NA
	6	M5-1L	Non OE Scrap	(1) chain	NA
A045					
	1	M6-1M	Non OE Scrap	(12) beer cans	NA
	2	M6-1M	Non OE Scrap	(1) flashlight w/batteries	NA
	3	M6-1M	Small Arms	(1) bullet	other
	4	M6-1M	Small Arms	(1) bullet	other
	5	M6-1M	Small Arms	(1) bullet	other
	6	M6-1M	No Find	no metal found	NA
	7	M6-1M	No Find	no metal found	NA
	8	M6-1M	No Find	no metal found	NA
A046					
	1	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	2	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	3	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	4	M6-1M	Non OE Scrap	wire	NA
	5	M6-1M	Non OE Scrap	wire	NA
	6	M6-1M	Small Arms	30cal brass	other
	7	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	8	M6-1M	Small Arms	(1) small arms, projectile, 30cal, (1) nail	other
	9	M6-1L	UXO	(1) 75mm projo, fired, fuzed (broken)	75 mm
	10	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	11	M6-1M	Non OE Scrap	(1) truck wheel bearing	NA
	12	M5-1L	OE Scrap	projectile frag, 75mm HE	75 mm
	13	M5-1L	Non OE Scrap	(1) coiled chain	NA
	14	M6-1M	Non OE Scrap	(1) drill bit	NA
	15	M6-1M	Non OE Scrap	(1) rebar	NA
	16	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	17	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	18	M6-1M	Non OE Scrap	(1) survey marker, (1) rebar	NA
	19	M6-1M	Non OE Scrap	(1) concrete post reinforced with rebar. related with 046020	NA
	20	M6-1M	Non OE Scrap	part of anomaly A046019	NA
	21	M6-1M	Small Arms	30cal brass	other
	22	M6-1M	Non OE Scrap	(1) washer	NA
	23	M6-1M	Non OE Scrap	(1) telephone pole w/numerous pipes and wires going into the ground	NA
	24	M6-1M	Non OE Scrap	(1) washer, (1) piece of wire	NA
	25	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	26	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	27	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	28	M6-1M	Small Arms	(1) small arms, projectile, 30cal	other
	29	M6-1M	Non OE Scrap	(1) nail	NA
	30	M6-1M	UXO	(1) mortar, 3in stokes, fuze mostly sheared off, fired; 24ft due south of west side grid stake A46.1.5.	3 inch
A046O					
	1	M6-1M	OE Scrap	(1) projectile pusher plate, west of A046	NA
	2	M6-1M	OE Scrap	(1) CS ball, spent (fired) aluminum, west side of A046	3 inch
	3	M6-1M	OE Scrap	(1) 75mm shrap round shell. Rotating bands show no marks (engraving) of going through a gun barrel. North West of A046.	75 mm
	4	M6-1M	OE Scrap	(1) 75mm shrap round shell. Rotating bands show no marks (engraving) of going through a gun barrel. NW corner of A046 120ft out. North of A046.	75 mm
	5	M6-1M	OE Scrap	75mm shrap round balls crusted together. NW corner of A046 75ft out, north of A046	75 mm
	6	M6-1M	OE Scrap	(1) projectile split open, west side A046 40ft out	unknown
	7	M6-1M	OE Scrap	(1) fuze piece, north side of A046	unknown
	8	M6-1M	OE Scrap	(1) projectile pusher plate, north side of A046	75 mm
	9	M6-1M	OE Scrap	projectile frag, north side of A046	unknown
	10	M6-1M	OE Scrap	(1/2) CS ball, north east side of A046	NA
	11	M6-1M	OE Scrap	(1) slap flare, north east of A046	NA
	12	M6-1M	OE Scrap	(1) CS ball, north east of A046	NA
	13	M6-1M	OE Scrap	(1) slap flare, north east of A046	NA
	14	M6-1M	OE Scrap	(1) fuze piece, east of A046	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	15	M6-1M	OE Scrap	(1) CS ball, east of grid A046	NA
	16	M6-1M	OE Scrap	projectile frag, east of grid A046	NA
	17		OE Scrap	mortar frag, area south of A046. 47ft south of northern treeline, in line of 28ft west of A046 corner stake A46.4	unknown
	18		OE Scrap	(1) .50cal casing, area south of A046, 40ft south of northern treeline	NA
	19		OE Scrap	(1) .50cal casing, area south of A046, 33ft south of northern treeline	NA
A047					
	1	M6-1M	Non OE Scrap	(1) metal 'D' ring	NA
	2	M6-1M	Small Arms	(1) .30cal projo	other
	3	M6-1M	Non OE Scrap	rebar	NA
	4	M6-1M	Non OE Scrap	(1) M16 20 round magazine	NA
	5	M6-1M	OE Scrap	(1) 75mm projo, shrapnel	75 mm
	6	M6-1M	Non OE Scrap	(1) wire screen	NA
	7	M6-1M	Non OE Scrap	wire	NA
	8	M6-1M	Non OE Scrap	(1) metal hinge	NA
	9	M6-1M	Non OE Scrap	(1) nail	NA
	10	M6-1M	Non OE Scrap	(1) M1 loading clip	NA
A049					
	1	M6-1M	OE Scrap	mortar frag, 81mm, tail fin pieces	81 mm
	2	M6-1M	Non OE Scrap	nails	NA
	3	M6-1M	Small Arms	(5) 5.56mm bullets	other
	4	M6-1M	Non OE Scrap	nails	NA
	5	M6-1M	OE Scrap	mortar frag, 60mm, HE	60 mm
	6	M6-1M	OE Scrap	tail fins, (1) fuze, 60mm	60 mm
	7	M6-1M	Non OE Scrap	wire	NA
	8	M6-1M	OE Scrap	(1) mortar tail fin piece, frag, 81mm	81 mm
A050					
	1	m61M	Non OE Scrap	telephone drop point	NA
	1	M61M	OE Scrap	chemical simulator spheres	
	2	m61M	OE Scrap	frag, unknown	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	3	m61M	Non OE Scrap	scrap metal	NA
	4	m61M	Non OE Scrap	scrap metal	NA
	5	m61M	Non OE Scrap	scrap metal	NA
	6	m61M	OE Scrap	mortar frag, 60mm, M49A2	60 mm
	7	m61M	Small Arms	(1) small arm, projectile, 30cal, scrap metal	other
	8	m61M	Small Arms	(2) small arms, projectile, 30cal	other
	9	m61M	UXO	(1) rocket, 3.5in, M29A1	3.5 inch
	10	m61M	Small Arms	(1) small arms, cartridge blank, 30cal, scrap metal	other
	11	m61M	UXO	(1) mortar, 3in, stokes, MK 1	3 inch
	12	m61M	Non OE Scrap	scrap metal	NA
	13	m61M	OE Scrap-M	(1) rifle grenade debris, smoke, M9A1 scrap metal	other
	14	m61M	Non OE Scrap	banding material	NA
	15	m61M	Non OE Scrap	scrap metal	NA
	16	m61M	OE Scrap	mortar fin debris, 60mm, M49A2, (1) small arms, projectile, 30cal	60 mm
	17	m61M	Non OE Scrap	scrap metal	NA
	18	m61M	OE Scrap	rocket fin debris, 3.5in, M29A1, (1) small arm	3.5 inch
	19	m61M	OE Scrap	(1) rocket, 3.5in, M29A1	3.5 inch
	20	m61M	Non OE Scrap	scrap metal	NA
	21	m61M	OE Scrap	rocket warhead debris, 3.5in	3.5 inch
	22	m61M	UXO	(1) mortar, 3in, stokes, MK I	3 inch
	23	m61M	Non OE Scrap	scrap metal	NA
	24	m61M	OE Scrap-M	hand grenade frag MK II	60 mm
	25	m61M	OE Scrap-M	hand grenade frag MK II	other
	26	m61M	OE Scrap-M	smoke submunition debris	NA
	27	m61M	Non OE Scrap	scrap metal	NA
	28	m61M	OE Scrap	mortar fin debris, 60mm, M49A2, scrap metal	60 mm
	29	m61M	Non OE Scrap	scrap metal	NA
	30	m61M	OE Scrap-M	hand grenade frag, WP, M34	other
	31	m61M	Non OE Scrap	(1) M16 magazine	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	32	m61M	OE Scrap	(1) rocket fins, M29A1	3.5 inch
	33	m61M	UXO	(1) rocket, 3.5in, M29A1	3.5 inch
	34	m61M	NA	part of anomaly A050033	NA
	35	m61M	Non OE Scrap	(1) pipe	NA
	36	m61M	OE Scrap	(1) rocket, 2.36in, practice, M7; hand grenade debris, WP	2.36 inch
	37	m61M	OE Scrap-M	hand grenade frag WP, M34	other
	38	m61M	OE Scrap	mortar frag and debris, 60mm, M49A2, (1) small arms, cartridge 30cal	60 mm
	39	m61M	Small Arms	(1) small arms, cartridge 30cal, (1) lid	other
	40	m61M	Non OE Scrap	scrap metal	NA
	41	m61M	OE Scrap	mortar frag and debris, 60mm, M49A2	60 mm
	42	m61M	OE Scrap	(1) rocket motor debris, 2.36in	2.36 inch
	43	m61M	Non OE Scrap	scrap metal	NA
	44	m61M	Non OE Scrap	scrap metal	NA
	45	m61M	Non OE Scrap	scrap metal	NA
	46	m61M	OE Scrap	frag unknown; smoke submunition debris	NA
	47	m61M	Non OE Scrap	scrap metal	NA
	48	m61M	Non OE Scrap	scrap metal	NA
	49	m61M	Non OE Scrap	scrap metal	NA
	50	m61M	Non OE Scrap	scrap metal	NA
	51	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	52	m61M	Non OE Scrap	(1) drum cap, metal scrap	NA
	53	m61M	Non OE Scrap	aluminum scrap	NA
	54	m61M	Non OE Scrap	scrap metal	NA
	55	m61M	Non OE Scrap	scrap metal	NA
	56	m61M	Non OE Scrap	scrap metal	NA
	57	m61M	Non OE Scrap	scrap metal	NA
	58	m61M	OE Scrap	projectile frag, 37mm, MK II	37 mm
A051					
	1	M61M	OE Scrap	smoke, rifle and WP grenades	

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
A055					
	1	m61M	Non OE Scrap	wire	NA
	2	m61M	Small Arms	(9) small arms, projectile 7.62mm; wire mesh	other
	3	m61M	Non OE Scrap	wire	NA
	4	m61M	OE Scrap	(1) rifle grenade debris, M9	other
	5	m61M	OE Scrap-M	(1) mine debris, anti personnel, M8	other
	6	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	7	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
A056					
	1	M61M	Small Arms	5.56mm, 7.62mm small arms casings	
	2	M6-1M	Small Arms	brass, (3) cans	other
	3	M6-1M	Non OE Scrap	(1) metal tube	NA
	4	M6-1M	Small Arms	brass, (1) nail	other
	5	M6-1M	Non OE Scrap	(1) metal band, (1) can	NA
	6	M6-1M	Non OE Scrap	(1) metal rod	NA
	7	M6-1M	OE Scrap-M	(1) smoke grenade, (1) can	other
	8	M6-1M	Small Arms	brass	other
A057					
	1	M6-1M	Non OE Scrap	(1) metal band, 24x1.5'	NA
	2	M6-1M	Non OE Scrap	barbed wire, 72'	NA
	3	M6-1M	Non OE Scrap	part of anomaly A057002	NA
	4	M6-1M	Non OE Scrap	barbed wire, 18'	NA
	4	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	5	M6-1M	Non OE Scrap	barbed wire, 24'	NA
	6	M6-1M	Non OE Scrap	barbed wire, 30'	NA
	7	M6-1M	Small Arms	(1) bullet	other
	9	M6-1M	Non OE Scrap	barbed wire, 120'	NA
A058					

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	1	M6-1M	Small Arms	bullets	other
	2	M6-1M	Small Arms	scattered bullets	other
	3	M6-1M	Small Arms	(3) bullets	other
	4	M6-1M	Non OE Scrap	barbed wire	NA
	5	M6-1M	Non OE Scrap	part of anomaly A058004	NA
	6	M6-1M	Non OE Scrap	metal scrap	NA
	7	M6-1M	Small Arms	(2) bullets	other
	8	M6-1M	Small Arms	(1) bullet	other
	9	M6-1M	Small Arms	(2) bullets	other
A059					
	1	M6-1M	OE Scrap	projectile frag, 37mm	37 mm
	2	M6-1M	Non OE Scrap	(1) pipe, 15x1'	NA
	3	M6-1M	OE Scrap-M	(1) slap flare, expended	other
	4	M6-1M	NA	part of anomaly A059003	NA
	5	M6-1M	Non OE Scrap	(1) threaded rod, (1) nut 12x1'	NA
	6	M6-1M	OE Scrap-M	(1) slap flare	other
	7	M6-1M	OE Scrap	mortar frag, 60mm	60 mm
A060					
	1	M6-1M	NA	outside of grid where mule was parked	NA
	2	M6-1M	Small Arms	small arm rounds	other
	3	M6-1M	Non OE Scrap	(1) rebar, 6x.5'	NA
	4	M6-1M	Small Arms	(1) small arm round	other
	5	M6-1M	OE Scrap	projectile frag, 57mm	other
A061					
	1	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	2	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	3	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	4	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	5	m61M	Small Arms	(2) small arms, projectile 7.62mm	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ora Size
	6	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	7	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	8	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	9	m61M	Non OE Scrap	(1) chain	NA
	10	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	11	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	12	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	13	m61M	Small Arms	(4) small arms, projectile 7.62mm	other
	14	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	15	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	16	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
	17	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	18	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	19	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	20	m61M	Small Arms	(2) small arms, projectile 7.62mm	other
	21	m61M	Non OE Scrap	(1) horse shoe	NA
	22	m61M	Small Arms	(3) small arms, projectile 7.62mm	other
	23	m61M	Small Arms	(1) small arms, projectile 7.62mm	other
A063					
	1	M6-1M	Non OE Scrap	(1) tent stake	NA
	2	M6-1M	Small Arms	small arm rounds scattered throughout area	other
	3	M6-1M	Small Arms	small arm rounds scattered	other
	4	M6-1M	Non OE Scrap	small pieces of scrap	NA
	5	M6-1M	Small Arms	(1) .30cal bullet	other
	6	M6-1M	Small Arms	small arm rounds	other
A064					
	1	M6-1M	Non OE Scrap	(1) can	NA
	1	M61M	Small Arms	7.62mm small arms	
	2	M6-1M	Non OE Scrap	(1) wire rope, 20x1', w/ (2) clamps	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	3	M6-1M	Non OE Scrap	foil, several layers folded	NA
	4	M6-1M	Small Arms	5.56 blanks	other
	5	M6-1M	Non OE Scrap	(1) metal bar, 12x.5'	NA
	6	M6-1M	OE Scrap-M	(1) M67 practice grenade, no fuze	other
	7	M6-1M	Non OE Scrap	(1) wire, 12'	NA
	8	M6-1M	Small Arms	(1) 5.56 blank	other
	9	M6-1M	Non OE Scrap	(1) pipe, 24x.5'	NA
	10	M6-1M	Non OE Scrap	(1) horseshoe	NA
	11	M6-1M	Non OE Scrap	(1) wire, 6'	NA
	12	M6-1M	Small Arms	(1) ammo can, cartridges, links in a pit	NA
	13	M6-1M	Small Arms	(1) ammo can, cartridges, wire scattered	NA
	14	M6-1M	Non OE Scrap	part of anomaly A064013	NA
	15	M6-1M	Non OE Scrap	foil	NA
	16	M6-1M	Non OE Scrap	wire	NA
	17	M6-1M	No Find	no metal found	NA
	18	M6-1M	Non OE Scrap	(1) tent stake	NA
A065					
	1	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	2	m61M	Small Arms	small arms, projectiles 30cal	other
	3	m61M	Small Arms	small arms, projectiles 30cal	other
	4	m61M	Small Arms	small arms, projectiles 30cal	other
	5	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	other
	6	m61M	Small Arms	(4) small arms, projectile 5.56mm	other
	7	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	8	m61M	Small Arms	(3) small arms, projectile 5.56mm	other
	9	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	10	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	11	m61M	UXO	(1) mortar fin, 60mm, M49A2; small arms, projectile 5.56mm	60 mm
	12	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	13	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2; small arms, projectile 5.56mm	60 mm
	14	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2; small arms, projectile 5.56mm	60 mm
	15	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
A066					
	1	M6-1M	Small Arms	(1) .30cal projo	other
	1	M61M	UXO	(3) rocket, 3.5in, practice, M29	3.5in
	2	M6-1M	OE Scrap	(1) rocket, 3.5in, practice	3.5 inch
	3	M6-1M	OE Scrap	(1) rocket, 3.5in, practice	3.5 inch
	4	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	5	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	6	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	7	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	8	M6-1M	OE Scrap	(1) rocket, 3.5in, practice	3.5 inch
	9	M6-1M	Small Arms	small arms	other
	10	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	11	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	12	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	13	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	14	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	15	M6-1M	OE Scrap	(1) rocket nose cone, 3.5in	3.5 inch
	16	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	17	M6-1M	OE Scrap	(1) rocket tail boom, 3.5in rocket	3.5 inch
	18	M6-1M	OE Scrap	(1) rocket tail boom, 3.5in rocket	3.5 inch
	19	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	20	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
	21	M6-1M	Small Arms	(1) small arms, projectile, .30cal	other
A067					
	1	M6-1M	Non OE Scrap	nails	NA
	2	M6-1M	Non OE Scrap	nails	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	3	M6-1M	Non OE Scrap	barbed wire	NA
A069					
	1	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	2	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	3	m61M	Non OE Scrap	(1) 55gal barrel	NA
	4	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	5	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	6	m61M	OE	(1) mortar, 60mm, M49A2, unfuzed	60 mm
	7	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2; (1) small arm, projectile 30cal	60 mm
	8	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	9	m61M	Small Arms	(1) small arms, projectile 30cal	other
	10	m61M	OE Scrap	(3) mortars, 60mm, M49A2	60 mm
	11	m61M	OE Scrap	(2) mortars, 60mm, M49A2	60 mm
	12	m61M	Small Arms	(4) small arms, projectile 30cal	other
	13	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	14	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	15	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	16	m61M	Non OE Scrap	(1) fence post, (1) 55gal barrel	NA
	17	m61M	Non OE Scrap	(1) 55gal barrel	NA
	18	m61M	Non OE Scrap	(1) 55gal barrel	NA
	19	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	20	m61M	OE Scrap	(1) mortar fuze, 60mm, M49A2	60 mm
	21	m61M	Small Arms	(1) small arms, projectile 30cal	other
	22	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	23	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	24	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2; small arms, projectile 5.56mm	other
	25	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	26	m61M	Small Arms	(5) small arms, projectiles 30cal	other
	27	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2; (3) mortar fuzes, mortar frag	60 mm

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ora Size
	28	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	29	m61M	Small Arms	(3) small arms, projectiles 30cal	other
	30	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	31	m61M	Small Arms	(2) small arms, projectiles 30cal, (2) nails	other
	32	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	33	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	34	m61M	OE Scrap	(3) mortar fins, 60mm, M49A2	60 mm
	35	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	36	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	37	m61M	OE Scrap	(3) fragments, unknown	NA
	38	m61M	OE Scrap	(2) mortar fins	60 mm
	39	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	40	m61M	UXO	(1) mortar, 60mm, M49A2, (1) rocket, 2.36in	60 mm
A070					
	1	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	2	m61M	OE Scrap-M	(1) hand grenade, practice M9	other
	3	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	4	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	5	m61M	OE Scrap-M	grenade fuze debris, (1) signal, illumination, flare scrap	other
	6	m61M	OE Scrap	frag, unknown	NA
	7	m61M	Small Arms	(4) small arms, projectiles 30cal, (4) nails	other
	8	m61M	OE Scrap-M	(1) grenade fuze debris	other
	9	m61M	OE Scrap-M	(1) signal, illumination, flare scrap, (1) Grenade fuze debris, pipe	other
	10	m61M	OE Scrap	smoke grenades, flares, small arms, burn pit	other
	11	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	12	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	13	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	14	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	15	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	16	m61M	Non OE Scrap	(1) ammo can with batteries	NA
	17	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	18	m61M	OE Scrap-M	(1) signal, illumination, flare scrap, grenade fuze debris	other
A071					
	1	M6-1M	Non OE Scrap	(1) channel iron, 60'	NA
	2	M6-1M	Non OE Scrap	(1) pipe, long, run still in ground	NA
	3	M6-1M	Non OE Scrap	part of anomaly A071004	NA
	4	M6-1M	Non OE Scrap	(1) pipe, 36x1'	NA
	5	M6-1M	Non OE Scrap	(1) pipe, long run, still in ground	NA
	6	M6-1M	Non OE Scrap	scrap, 4x.5'	NA
	7	M6-1M	Small Arms	(4) 5.56 casings	other
	8	M6-1M	Non OE Scrap	(1) can	NA
	9	M6-1M	Non OE Scrap	(1) rebar, 30'	NA
	10	M6-1M	Non OE Scrap	(8) nails	NA
	11	M6-1M	Non OE Scrap	(1) rebar, 96'	NA
	12	M6-1M	Non OE Scrap	(1) rebar, 48'	NA
	13	M6-1M	Non OE Scrap	(1) small piece of scrap	NA
	14	M6-1M	NA	(1) rebar QC, outside grid	NA
	15	M6-1M	Non OE Scrap	(2) pieces small scrap	NA
	16	M6-1M	Small Arms	7.62 casings	other
	17	M6-1M	Small Arms	7.62 casings	other
	18	M6-1M	No Find	no metal found	NA
	19	M6-1M	Small Arms	(1) .30cal bullet	other
	20	M6-1M	Non OE Scrap	(1) can, 10x8'	NA
	21	M6-1M	Non OE Scrap	part of anomaly A071012	NA
	22	M6-1M	Non OE Scrap	(1) wire, 8'	NA
	23	M6-1M	Small Arms	(1) 7.62 casing	other
	24	M6-1M	No Find	no metal found	NA
	25	M6-1M	No Find	no metal found	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ora Size
A072					
	1	M6-1M	Non OE Scrap	(1) portion of fence post	NA
	2	M6-1M	Non OE Scrap	(1) bolt	NA
	3	M6-1M	Non OE Scrap	electrical wire	NA
	4	M6-1M	Non OE Scrap	(1) angle iron	NA
	5	M6-1M	Non OE Scrap	(1) metal plate	NA
	6	M6-1M	Non OE Scrap	(1) angle iron	NA
	7	M6-1M	Non OE Scrap	electrical wire	NA
	8	M6-1M	UXO	(1) rifle grenade, signal, green, live	other
	9	M6-1M	Small Arms	(1) .30cal projo	other
	10	M6-1M	Small Arms	(1) .30cal projo	other
	11	M6-1M	Non OE Scrap	(1) angle iron	NA
	12	M6-1M	Non OE Scrap	sheet metal	NA
	13	M6-1M	Non OE Scrap	(1) angle iron	NA
	14	M6-1M	Non OE Scrap	(1) angle iron	NA
	15	M6-1M	Non OE Scrap	(1) electrical conduit	NA
A073					
	1	m61M	OE Scrap	(1) rocket, 2.36in, practice, M7	2.36 inch
	1	M61M	UXO	(3) rockets, 2.36in, M7, practice	2.36in
	1	m61M	OE Scrap	(1) rocket motor debris, 2.36in, M7	2.36 inch
	2	m61M	Small Arms	(6) small arms, projectile 30cal	other
	2	M61M	OE Scrap	(2) grenades, rifle, practice, M11	other
	3	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	3	M61M	UXO	(5) rockets, 2.36in, practice, M7	2.36in
	3	m61M	OE Scrap	frag, unknown	NA
	4	M61M	UXO	(10) rockets, 2.36in, practice, M7	2.36in
	4	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	5	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	6	m61M	OE Scrap	(1) rocket motor debris, 2.36in	2.36 inch

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	7	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	8	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	9	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	10	m61M	NA	part of anomaly A073009	NA
	11	m61M	OE Scrap	(1) rocket motor debris, 2.36in	2.36 inch
	12	m61M	OE Scrap	(1) rocket warhead debris, 2.36in	2.36 inch
	13	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	13	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	14	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	15	m61M	UXO	(1) rocket, 2.36in, AT, M6	2.36 inch
	16	m61M	OE Scrap	(2) mortar fins, 60mm, M49A2	60 mm
	17	m61M	OE Scrap	(1) rocket motor debris, 2.36in	2.36 inch
	18	m61M	OE Scrap	(1) rocket, 2.36in, practice, M7	2.36 inch
	19	m61M	OE Scrap	(1) rocket, 2.36in, practice, M7	2.36 inch
	20	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
	21	m61M	OE Scrap	(1) mortar fin, 60mm, M49A2	60 mm
A077					
	1	M6-1M	Small Arms	7.62mm brass	other
	2	M6-1M	Small Arms	7.62mm brass	other
	3	M6-1M	Small Arms	7.62mm brass	other
	4	M6-1M	Non OE Scrap	metal	NA
	5	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	6	M6-1M	UXO	(1) rocket, 2.36in	2.36 inch
	7	M6-1M	OE Scrap-M	(1) rifle grenade signal illumination	other
	8	M6-1M	OE Scrap	(1) rifle grenade signal illumination	other
	9	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	10	M6-1M	Non OE Scrap	scrap metal	NA
	11	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	12	M6-1M	Non OE Scrap	(1) small piece of metal	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	13	M6-1M	OE Scrap-M	MKII frag	other
	14	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	15	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	16	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	17	M6-1M	OE Scrap-M	(3) fragments, MKII	other
	18	M6-1M	OE Scrap-M	(1) rifle grenade signal illumination	other
	19	M6-1M	OE Scrap	(1) rifle grenade signal illumination	other
	20	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	21	M6-1M	Small Arms	(1) .30cal bullet	other
	22	M6-1M	Non OE Scrap	(1) small metal object	NA
	23	M6-1M	Non OE Scrap	(1) survey stake	NA
	24	M6-1M	OE Scrap-M	grenade frag, MKII	other
	25	M6-1M	Non OE Scrap	small metal objects	NA
	26	M6-1M	Non OE Scrap	(1) small metal object	NA
A078					
	3	M6-1L	Small Arms	(3) bullets, reinforced concrete	other
	4	M6-1L	Small Arms	(15) bullets, approx 100lbs reinforced concrete	other
	5	M6-1L	Non OE Scrap	(1) pipe	NA
	6	M6-1L	Non OE Scrap	barbed wire	NA
	7	M6-1L	Non OE Scrap	(1) pipe	NA
	8	M6-1L	Non OE Scrap	barbed wire	NA
	9	M6-1L	Non OE Scrap	barbed wire	NA
	10	M6-1L	OE Scrap	(1) flare	other
	11	M6-1L	Non OE Scrap	(1) pipe	NA
	12	M6-1L	Small Arms	bullets	other
	13	M6-1L	OE Scrap	(1) rifle grenade signal illumination	other
	14	M6-1L	Small Arms	brass bullets	other
	15	M6-1M	Non OE Scrap	barbed wire, (1) wire rod	NA
	16	M6-1M	Non OE Scrap	(1) rifle grenade tail boom, (1) truss plate	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	17	M6-1M	Non OE Scrap	(1) wire rod in tubular shape	NA
	18	M6-1M	Non OE Scrap	part of anomaly A078017	NA
	19	M6-1M	Non OE Scrap	part of anomaly A078017	NA
	20	M6-1M	Non OE Scrap	(1) tent stake	NA
	21	M6-1M	Small Arms	bullets	other
	22	M6-1M	Small Arms	bullets	other
	23	M6-1M	Small Arms	brass, bullet	other
	24	M6-1M	Small Arms	bullets	other
	25	M6-1L	Non OE Scrap	(1) metal rod	NA
	26	M6-1L	Non OE Scrap	(1) pipe	NA
	27	M6-1L	Non OE Scrap	wire	NA
	28	M6-1L	Small Arms	(5) bullets	other
	29	M6-1L	Non OE Scrap	(1) pipe	NA
	30	M6-1L	Small Arms	bullets	other
	31	M6-1L	Small Arms	(3) bullets, (1) nut, (1) bolt	other
	32	M6-1L	Non OE Scrap	barbed wire	NA
	33	M6-1L	Non OE Scrap	barbed wire	NA
	34	M6-1M	Small Arms	brass bullet, 6" bailing wire	other
	35	M6-1M	Small Arms	brass bullets	other
	37	M6-1M	Small Arms	brass bullets	other
	38	M6-1M	Small Arms	small arms	other
A079					
	1	m61M	Non OE Scrap	rebar metal scrap	NA
	2	m61M	NA	part of anomaly A079022	NA
	3	m61M	Non OE Scrap	(1) tire iron, (1) water pipe	NA
	4	m61M	Non OE Scrap	(1) metal stake	NA
	5	m61M	Non OE Scrap	(1) Alabama license plate	NA
	6	m61M	Non OE Scrap	wire	NA
	7	m61M	Non OE Scrap	wire	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	8	m61M	Non OE Scrap	wire	NA
	9	m61M	Non OE Scrap	aluminum foil	NA
	10	m61M	Non OE Scrap	aluminum foil	NA
	11	m61M	Non OE Scrap	(1) round metal plate	NA
	12	m61M	Non OE Scrap	(1) water faucet	NA
	13	m61M	Non OE Scrap	(1) water faucet	NA
	14	m61M	Non OE Scrap	(1) pipe	NA
	15	m61M	Non OE Scrap	(1) aluminum can	NA
	16	m61M	Non OE Scrap	pitch fork tines	NA
	17	m61M	Small Arms	(2) small arms, cartridges 12ga	other
	18	m61M	Non OE Scrap	(1) fence post	NA
	19	m61M	NA	part of anomaly A079018	NA
	20	m61M	Non OE Scrap	(1) hoe head	NA
	21	m61M	Non OE Scrap	(1) fence post	NA
	22	m61M	Non OE Scrap	(1) metal cable	NA
	23	m61M	Non OE Scrap	wire	NA
A080					
	1	M6-1L	Non OE Scrap	reinforced concrete, still in ground	NA
	2	M6-1L	Other	(1) culvert	NA
	3	M6-1L	Non OE Scrap	scrap metal	NA
	4	M6-1L	Non OE Scrap	(1) nail	NA
	5	M6-1L	Non OE Scrap	scrap metal	NA
	6	M6-1L	OE Scrap	(1) grenade, practice, MKII, no fuze	NA
	7	M6-1L	Non OE Scrap	(1) metal rod	NA
	8	M6-1L	OE Scrap	(1) smoke grenade, expended	NA
	9	M6-1L	Non OE Scrap	(1) metal rod	NA
	10	M6-1L	OE Scrap	(1) slap flare	NA
	11	M6-1L	OE Scrap	(1) slap flare can	NA
	12	M6-1L	Small Arms	(1) small arm, 7.62 casing	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	13	M6-1L	OE Scrap	(1) slap flare can	NA
	14	M6-1L	Non OE Scrap	(1) metal rod	NA
	15	M6-1L	Non OE Scrap	part of anomaly A080014	NA
	16	M6-1L	Non OE Scrap	(1) metal rod conected to concrete	NA
	17	M6-1L	Non OE Scrap	(1) metal rod	NA
	18	M6-1L	Non OE Scrap	(1) metal rod	NA
	19	M6-1L	Non OE Scrap	barbed wire	NA
	20	M6-1L	OE Scrap-M	(1) flare container	other
	21	M6-1L	Non OE Scrap	(1) metal rod	NA
	22	M6-1L	Non OE Scrap	barbed wire	NA
	23	M6-1L	Non OE Scrap	barbed wire	NA
	24	M6-1L	Non OE Scrap	(1) flat metal bar	NA
	25	M6-1L	Non OE Scrap	barbed wire	NA
	26	M6-1L	Non OE Scrap	fencing staples	NA
	27	M6-1L	Non OE Scrap	(1) metal rod	NA
	28	M6-1L	Non OE Scrap	barbed wire	NA
	29	M6-1L	Non OE Scrap	part of anomaly A080022	NA
	30	M6-1L	Non OE Scrap	scrap metal	NA
	31	M6-1L	Non OE Scrap	(1) metal strap, anchored in cement	NA
	32	M6-1L	Non OE Scrap	(1) metal rod	NA
	33	M6-1L	Non OE Scrap	metal rods for ammo box	NA
	34	M6-1L	Non OE Scrap	(1) metal rod for ammo box	NA
	35	M6-1L	Non OE Scrap	(1) metal rod	NA
	36	M6-1L	Non OE Scrap	(1) metal rod for ammo box	NA
	37	M6-1L	Non OE Scrap	(1) metal rod	NA
	38	M6-1L	Non OE Scrap	(1) metal rod	NA
	39	M6-1L	Non OE Scrap	(1) metal rod	NA
	40	M6-1L	Non OE Scrap	bolts	NA
	41	M6-1L	Non OE Scrap	(1) metal rod	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	42	M6-1L	Non OE Scrap	(1) metal clamp	NA
	43	M6-1L	Non OE Scrap	barbed wire	NA
	44	M6-1L	Non OE Scrap	(1) metal rod	NA
	45	M6-1L	Non OE Scrap	barbed wire	NA
	46	M6-1L	Non OE Scrap	(1) lawn mower blade	NA
	47	M6-1L	Non OE Scrap	barbed wire	NA
	48	M6-1L	Non OE Scrap	(1) metal rod	NA
	49	M6-1L	Non OE Scrap	barbed wire	NA
	50	M6-1L	Non OE Scrap	barbed wire	NA
	51	M6-1L	Non OE Scrap	barbed wire	NA
	52	M6-1L	Non OE Scrap	(1) bucket handle	NA
	53	M6-1L	Non OE Scrap	(1) metal rod	NA
	54	M6-1L	Non OE Scrap	(1) metal rod	NA
	55	M6-1L	Non OE Scrap	(1) metal rod	NA
	56	M6-1L	Non OE Scrap	(1) metal rod	NA
	57	M6-1L	Non OE Scrap	(1) metal rod	NA
	58	M6-1L	Non OE Scrap	(1) metal rod	NA
	59	M6-1L	Non OE Scrap	barbed wire	NA
	60	M6-1L	Non OE Scrap	(1) metal rod	NA
	61	M6-1L	Non OE Scrap	(1) metal rod	NA
	62	M6-1L	Non OE Scrap	(1) metal rod	NA
	63	M6-1L	Non OE Scrap	(1) metal rod	NA
	64	M6-1L	Non OE Scrap	barbed wire	NA
	65	M6-1L	Non OE Scrap	(1) metal rod, anchored in cement	NA
	66	M6-1L	Non OE Scrap	(1) metal rod	NA
	67	M6-1L	Non OE Scrap	(1) metal rod	NA
	68	M6-1L	Non OE Scrap	(1) metal rod, anchored	NA
	69	M6-1L	Small Arms	(8) 5.56 casings	NA
	70	M6-1L	Non OE Scrap	(1) slap flare can	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	71	M6-1L	Non OE Scrap	(1) slap flare can	NA
	72	M6-1L	Non OE Scrap	(1) paint can	NA
	73	M6-1L	Non OE Scrap	wire	NA
	74	M6-1L	Non OE Scrap	nails	NA
	75	M6-1L	Non OE Scrap	(1) nail	NA
	76	M6-1L	Non OE Scrap	wire	NA
	77	M6-1L	Small Arms	(2) 7.62 casings	NA
A081					
	1	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	2	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	3	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	4	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	5	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	6	M6-1M	Non OE Scrap	(2) rebar, 48x.3'	NA
	7	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	8	M6-1M	Non OE Scrap	(1) flat bar anchored in ground	NA
	9	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	10	M6-1M	Non OE Scrap	part of anomaly A081009	NA
	11	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	12	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	13	M6-1M	Non OE Scrap	scrap, 2x1'	NA
	14	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	15	M6-1M	Non OE Scrap	(1/2) wheel hub	NA
	16	M6-1M	Non OE Scrap	(1) threaded rod anchored in ground	NA
	17	M6-1M	Non OE Scrap	(1) threaded rod anchored in ground	NA
	18	M6-1M	Non OE Scrap	(1) threaded rod anchored in ground	NA
	19	M6-1M	Non OE Scrap	(1) threaded rod anchored in ground	NA
	20	M6-1M	Non OE Scrap	scrap metal, 2x2'	NA
	21	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	22	M6-1M	Non OE Scrap	(1) metal rod, 12x.75'	NA
	23	M6-1M	OE Scrap-M	(1) rifle grenade, illum., expended	other
	24	M6-1M	Non OE Scrap	(1) pipe, 36x3'	NA
	25	M6-1M	Non OE Scrap	(4) nails	NA
	26	M6-1M	Small Arms	(1) .30cal bullet	other
	27	M6-1M	Non OE Scrap	small scrap metal	NA
	28	M6-1M	Non OE Scrap	(1) wire, 8'	NA
	29	M6-1M	Non OE Scrap	(1) wire, 4'	NA
	30	M6-1M	Non OE Scrap	aluminum scrap, 5x1'	NA
	31	M6-1M	Non OE Scrap	barbed wire, 12'	NA
	32	M6-1M	Non OE Scrap	aluminum scrap, 5x1'	NA
	33	M6-1M	Non OE Scrap	(1) rebar, 48x.3'	NA
	34	M6-1M	Non OE Scrap	(1) thin wire, 48'	NA
A085					
	1	M6-1L	Small Arms	brass	other
	2	M6-1L	Non OE Scrap	(1) metal strap	NA
	3	M6-1L	Non OE Scrap	part of anomaly A085004	NA
	4	M6-1L	Non OE Scrap	(1) large pipe	NA
	5	M6-1L	Non OE Scrap	(1) large pipe	NA
	6	M6-1L	Non OE Scrap	(2) large pipes	NA
	7	M6-1L	Non OE Scrap	scrap metal	NA
	8	M6-1L	OE Scrap-M	(1) mine	other
	9	M6-1L	OE Scrap-M	(1) mine	other
	10	M6-1L	Non OE Scrap	(1) beer can	NA
A086					
	1	M6-1M	Small Arms	7.63mm brass	other
	2	M6-1M	Non OE Scrap	(1) metal rod	NA
	3	M6-1M	Non OE Scrap	(1) nail	NA
	4	M6-1M	Non OE Scrap	(1) nut, (1) bolt	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	5	M6-1M	Non OE Scrap	small pieces of metal	NA
	6	M6-1M	Small Arms	7.62 brass	other
	7	M6-1M	Non OE Scrap	(1) small piece of metal	NA
	8	M6-1M	Non OE Scrap	(1) pieces of aluminum	NA
	9	M6-1M	Non OE Scrap	(1) eye bolt	NA
	10	M6-1M	OE Scrap-M	(1) slap flare	other
	11	M6-1M	Non OE Scrap	(1) metal plate	NA
	12	M6-1M	Non OE Scrap	(1) bolt	NA
	13	M6-1M	Non OE Scrap	(1) piece of metal	NA
	14	M6-1M	Non OE Scrap	nails	NA
	15	M6-1M	Non OE Scrap	(1) metal rod	NA
	16	M6-1M	Non OE Scrap	trash pit, nails, barbed wire	NA
	17	M6-1M	Non OE Scrap	nails, barbed wire	NA
	18	M6-1M	Non OE Scrap	barbed wire	NA
	19	M6-1M	Non OE Scrap	reinforced concrete	NA
	20	M6-1M	Small Arms	7,62 brass	other
	21	M6-1M	Small Arms	7.62 brass	other
A087					
	1	M6-1L	Small Arms	brass	other
	2	M6-1L	Non OE Scrap	wire	NA
	3	M6-1L	OE Scrap	mine frag, anti tank, M15	other
	4	M6-1L	Small Arms	brass	other
	5	M6-1L	OE Scrap	mine frag, anti tank, M15	other
	6	M6-1L	OE Scrap	(1) rocket ogive, 3.5in	3.5 inch
	7	M6-1L	OE Scrap	(1) rocket nose cone, 3.5in	3.5 inch
	8	M6-1L	Non OE Scrap	sheet metal	NA
	9	M6-1L	OE Scrap	(1) rocket ogive, 3.5in	3.5 inch
	10	M6-1L	Non OE Scrap	(1) 5gal gas can	NA
	11	M6-1L	Non OE Scrap	part of anomaly A087010	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	12	M6-1L	Non OE Scrap	scrap metal	NA
	13	M6-1L	Small Arms	brass	other
	14	M6-1L	Small Arms	brass	other
	15	M6-1L	Small Arms	brass	other
	16	M6-1L	Non OE Scrap	(1) horse shoe	NA
	17	M6-1L	OE Scrap	(1) rocket warhead, 2.36in, wax filled	2.36 inch
	18	M6-1L	Non OE Scrap	(1) chain 5'	NA
	19	M6-1L	Small Arms	brass, wire	other
	20	M6-1L	OE Scrap-M	(1) flare, empty	other
	21	M6-1L	OE Scrap	(1) M11 rifle grenade, practice	other
	22	M6-1L	OE Scrap	mortar fins, 60mm	60 mm
	23	M6-1L	Non OE Scrap	(1) metal container	NA
	24	M6-1L	OE Scrap-M	(1) grenade, practice	other
	25	M6-1L	Non OE Scrap		NA
	26	M6-1L	Non OE Scrap	(2) barrel bungs	NA
A088					
	1	M6-1M	Non OE Scrap	(1) metal rod extending into ground	NA
	2	M6-1M	Small Arms	brass	other
	3	M6-1M	Non OE Scrap	nails	NA
	4	M6-1M	Small Arms	brass, (1) long metal rod, nails	other
	5	M6-1M	Non OE Scrap	(1) stove grate handle, (1) nail	NA
	6	M6-1M	Small Arms	brass, (1) bullet, (1) screw, (1) nail, wire	other
	7	M6-1M	Small Arms	brass, wire, (1) nut, (1) bottle top	other
	8	M6-1M	Non OE Scrap	nails, copper pieces	NA
	9	M6-1M	Small Arms	brass, nails	other
	10	M6-1M	Non OE Scrap	(1) rebar	NA
	11	M6-1M	Small Arms	brass, (1) rebar (left in ground), (1) metal piece	other
	12	M6-1M	Non OE Scrap	(1) pipe, 21'	NA
	13	M6-1M	Non OE Scrap	part of anomaly A088012	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	14	M6-1M	Non OE Scrap	part of anomaly A088012	NA
	15	M6-1M	Non OE Scrap	part of anomaly A088012	NA
	16	M6-1M	Non OE Scrap	barbed wire	NA
	17	M6-1M	Non OE Scrap	barbed wire	NA
	18	M6-1M	Non OE Scrap	barbed wire	NA
	19	M6-1M	Non OE Scrap	barbed wire	NA
	20	M6-1M	Non OE Scrap	barbed wire	NA
	21	M6-1M	Small Arms	brass, metal pieces	other
	22	M6-1M	Small Arms	brass, (1) rebar	other
	23	M6-1M	Non OE Scrap	(1) large bolt, (1) soda can tab	NA
	24	M6-1M	Non OE Scrap	(1) metal piece	NA
	25	M6-1M	Non OE Scrap	(1) metal cylinder, hollow	NA
	26	M6-1M	Non OE Scrap	(1) metal hook	NA
	27	M6-1M	Non OE Scrap	(1) barbed wire	NA
	28	M6-1M	Non OE Scrap	(1) long metal rod	NA
	29	M6-1M	Non OE Scrap	(1) long metal rod	NA
	30	M6-1M	Non OE Scrap	barbed wire	NA
	31	M6-1M	Non OE Scrap	(1) hinge	NA
	32	M6-1M	Non OE Scrap	part of anomaly A088025	NA
	33	M6-1M	Non OE Scrap	(1) long metal rod	NA
	34	M6-1M	Non OE Scrap	barbed wire	NA
	35	M6-1M	Non OE Scrap	barbed wire	NA
	36	M6-1M	Non OE Scrap	barbed wire	NA
	37	M6-1M	Non OE Scrap	barbed wire	NA
	38	M6-1M	OE Scrap	(1) grenade spoon (smoke), (1) coat hanger, (1) tent stake, (1) nail, (1) bullet	other
	39	M6-1M	Small Arms	brass, (1) collar pin, bullets	other
A089					
	1	M6-1M	Non OE Scrap	(1) steel bar	NA
	2	M6-1M	Small Arms	30cal brass	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ora Size
	3	M6-1M	Non OE Scrap	(1) steel bar	NA
	4	M6-1M	Non OE Scrap	(1) aluminum can	NA
	5	M6-1M	Small Arms	30cal brass	other
	6	M6-1M	Non OE Scrap	(1) aluminum plate	NA
	7	M6-1M	Small Arms	30cal brass	other
	8	M6-1M	Small Arms	30cal brass	other
	9	M6-1M	Small Arms	30cal brass	other
	10	M6-1M	Small Arms	30cal brass	other
	11	M6-1M	Non OE Scrap	(1) steel bar	NA
	12	M6-1M	Non OE Scrap	(1) lead seal	NA
	13	M6-1M	Small Arms	30cal brass	other
	14	M6-1M	Small Arms	30cal brass	other
	15	M6-1M	Small Arms	30cal brass	other
A092					
	1	M61L	OE	(1) piece of TNT	NA
A093					
	1	m61L	Non OE Scrap	(1) 55gal barrel	NA
	6	m61L	Non OE Scrap	rebar	NA
	7	m61L	NA	part of anomaly A093006	NA
	11	m61L	Small Arms	(1) small arm, catridge 30cal, (1) bolt	other
	13	m61L	Non OE Scrap	(1) horse shoe	NA
	17	m61L	Non OE Scrap	wire	NA
	24	m61L	NA	no dig - too close to construction debris in anomaly A093025	NA
	25	m61L	Non OE Scrap	construction dbris	NA
A094					
	1	M6-1L	Non OE Scrap	nail pit near surface	NA
	2	M6-1L	Non OE Scrap	sheet metal, nails	NA
	3	M6-1L	Non OE Scrap	nails	NA
	4	M6-1L	OE Scrap	part of anomaly A094005	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	5	M6-1L	OE Scrap	(1) mortar, 81mm, practice, (1) spike, (1) nail	81 mm
	6	M6-1L	Non OE Scrap	sheet metal	NA
	7	M6-1L	Non OE Scrap	(1) bolt	NA
	8	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	9	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	10	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	11	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	12	M6-1L	OE Scrap	(1) mortar, 81mm, practice, (1) nail	81 mm
	13	M6-1L	Non OE Scrap	(1) steel plate	NA
	14	M6-1L	Non OE Scrap	nail pit	NA
	15	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	16	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	17	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	18	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	19	M6-1L	OE Scrap	(1) mortar tailboom, 60mm	60 mm
	20	M6-1L	OE Scrap	(1) mortar tailboom, 81mm, practice	81 mm
	21	M6-1L	Non OE Scrap	(1) metal rod	NA
	21	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	22	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	23	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	24	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	25	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	26	M6-1L	No Find	no find	NA
	27	M6-1L	Non OE Scrap	(1) can	NA
	28	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	29	M6-1L	OE Scrap	frag, unknown	NA
	30	M6-1L	Non OE Scrap	(1) metal plate, (1) metal rod	NA
	31	M6-1L	Non OE Scrap	nails	NA
	32	M6-1L	Non OE Scrap	(1) metal piece	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	33	M6-1L	Non OE Scrap	(1) horse shoe	NA
	34	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	35	M6-1L	OE Scrap	(1) mortar, 81mm, practice	81 mm
	36	M6-1L	Non OE Scrap	(1) metal piece	NA
	37	M6-1L	Non OE Scrap	(1) barbed wire stake	NA
	38	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	39	M6-1L	Non OE Scrap	(1) spike	NA
	40	M6-1L	Non OE Scrap	(1) bolt, (1) washer	NA
	41	M6-1L	Small Arms	brass	other
	42	M6-1L	Non OE Scrap	(1) gate hinge, nails	NA
	43	M6-1L	Non OE Scrap	(1) bolt	NA
	44	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	45	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	46	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	47	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	48	M6-1L	Non OE Scrap	(1) railroad tie on surface	NA
	49	M6-1L	Non OE Scrap	(1) metal rod	NA
	50	M6-1L	OE Scrap	(1) mortar, 60mm, practice	60 mm
	51	M6-1L	Non OE Scrap	foil	NA
	52	M6-1L	Non OE Scrap	nails	NA
A095					
	2		Non OE Scrap	trash	NA
	6		Small Arms	(1) shotgun shell, trash	NA
	8		Non OE Scrap	trash	NA
	9		Non OE Scrap	(1) pipe	NA
	10		Non OE Scrap	(1) spike	NA
	11		Non OE Scrap	trash	NA
	13		Non OE Scrap	(1) piece of pipe	NA
	14		Non OE Scrap		NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	15		Small Arms	(1) 7.62 casing	NA
	16		Non OE Scrap	(1) wire rope, anchored	NA
	17		Non OE Scrap	scrap metal	NA
	18		Non OE Scrap	trash pit	NA
	19		Non OE Scrap	scrap metal	NA
	20		Non OE Scrap	(1) bolt	NA
	21		Non OE Scrap	(1) nail	NA
	22		Non OE Scrap	nails	NA
	23		Non OE Scrap	slag	NA
	24		Non OE Scrap	trash pit	NA
	26		Non OE Scrap	trash	NA
	27		Non OE Scrap	scrap metal, 2x1'	NA
	28		Non OE Scrap	scrap metal, 2x2'	NA
	29		Non OE Scrap	(1) metal rod, 4x2'	NA
	30		Non OE Scrap	(5) nails	NA
	31		Small Arms	(3) 5.56 cartridges	NA
	32		Non OE Scrap	nails	NA
	33		Non OE Scrap	wire	NA
	34		Non OE Scrap	(1) eye hook	NA
	35		Small Arms	(1) bullet	NA
	36		Non OE Scrap	scrap metal, nails	NA
	37		Small Arms	(1) 5.56 casing	NA
	38		Non OE Scrap	(1) can	NA
	39		Non OE Scrap	(1) nail	NA
	40		No Find	no find	NA
	41		No Find	no find	NA
	42		Non OE Scrap	(1) rebar, 15'	NA
	45		Non OE Scrap	(1) metal rod	NA
	46		Non OE Scrap	(1) nail	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	47		Non OE Scrap	(1) nail	NA
	48		Small Arms	(1) 5.56 casing, metal scrap	NA
	49		Small Arms	(1) 7.62 casing	NA
	50		Non OE Scrap	trash pit	NA
	51		Non OE Scrap	lighter	NA
	52		Non OE Scrap	(1) nail	NA
	53		Non OE Scrap	(1) nail	NA
	54		Non OE Scrap	(1) nail	NA
	55		Small Arms	(1) cartridge case	NA
	56		Small Arms	(1) 5.56 casing	NA
	57		Non OE Scrap	(1) nail	NA
	58		Non OE Scrap	nails	NA
	59		Small Arms	(1) nail, (1) bullet	NA
	60		Non OE Scrap	wire	NA
	61		Non OE Scrap	scrap metal	NA
	62		No Find	no find	NA
	63		Small Arms	(1) bullet	NA
	65		Small Arms	(1) 5.56mm cartridge	NA
	67		Non OE Scrap	scrap metal	NA
A098					
	1	M61L	OE Scrap	(1) rifle grenade, M9	other
A099					
	1	M6-1L	Non OE Scrap	(1) paint bucket	NA
	2	M6-1L	Non OE Scrap	(1) top to a can	NA
	3	M6-1L	Non OE Scrap	(1) can	NA
	4	M6-1L	Non OE Scrap	wire, 15lbs	NA
	5	M6-1L	Non OE Scrap	(1) tow cable	NA
	6	M6-1L	Non OE Scrap	nails	NA
	7	M6-1L	Non OE Scrap	(1) D ring	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	8	M6-1L	Non OE Scrap	(1) large piece of aluminum	NA
	41	M6-1L	Non OE Scrap	(1) metal rod	NA
A100					
	1	M6-1L	Non OE Scrap	(1) rebar, 30'	NA
	2	M6-1L	Non OE Scrap	part of anomaly A100001	NA
	3	M6-1L	Non OE Scrap	(1) u-bolt	NA
	4	M6-1L	Non OE Scrap	scrap metal	NA
	5	M6-1L	Non OE Scrap	(1) metal bar, 18x1'	NA
	6	M6-1L	Non OE Scrap	(1) spike, 7'	NA
	7	M6-1L	Non OE Scrap	(1) nail	NA
	8	M6-1L	Other	anomaly in asphalt road	NA
	9	M6-1L	Small Arms	5.56 blanks, (1) bottle cap	other
A104					
	1	M61L	UXO	(1) grenade, practice	other
A105					
	1	M61L	OE Scrap	(1) signal, ground, illumination	other
A106					
	1	M61L	Small Arms	small arms casings, ammo can for 5.56mm rounds	other
A108					
	1	M6-1L	Non OE Scrap	(1) water drain	NA
	2	M6-1L	Non OE Scrap	(1) metal bar	NA
	3	M6-1L	Non OE Scrap	(1) part of a hoe	NA
	4	M6-1L	Non OE Scrap	(1) ratchet strap	NA
	5	M6-1L	Non OE Scrap	(1) large piece of metal	NA
A109					
	1	M6-1M	Non OE Scrap	(1) pipe	NA
	1	m61L	Non OE Scrap	(1) bolt	NA
	2	M6-1M	Small Arms	brass 7.62	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	2	m61L	Small Arms	(1) small arms, cartridge 30cal, (1) clip 30cal	other
	3	M6-1M	Non OE Scrap	(1) piece of horse shoe	NA
	3	m61L	Non OE Scrap	(1) bolt	NA
	4	M6-1M	Small Arms	brass 7.62	other
	4	m61L	Non OE Scrap	(1) chain, (1) snap hook	NA
	5	M6-1M	Small Arms	brass	other
	5	m61L	OE Scrap-M	(1) signal, illumination, flare scrap	other
A113					
	1	M6-1L	Non OE Scrap	(1) vehicle filter	NA
	2	M6-1L	Non OE Scrap	(1) beer can	NA
	3	M6-1L	Non OE Scrap	scrap metal	NA
	4	M6-1L	Non OE Scrap	scrap metal	NA
	5	M6-1L	Non OE Scrap	(1) bolt, 30x.75'	NA
	6	M6-1L	Non OE Scrap	part of anomaly A113005	NA
	7	M6-1L	Non OE Scrap	(1) sign post	NA
	8	M6-1L	Non OE Scrap	circular scrap	NA
	9	M6-1L	Non OE Scrap	barbed wire	NA
	10	M6-1L	Non OE Scrap	part of anomaly A113009	NA
	11	M6-1L	Non OE Scrap	(1) aluminum can	NA
	12	M6-1L	Small Arms	small arms cartridges	other
	13	M6-1L	Non OE Scrap	(1) backhoe bucket tooth	NA
A114					
	2	m61L	Non OE Scrap	(1) bolt	NA
	3	m61L	NA	part of anomaly A114002	NA
	4	m61L	Small Arms	(1) small arm, cartridge 30cal, (1) metallic rock	other
	6	m61L	Small Arms	(2) small arms, cartridges 30cal	other
	7	m61L	Non OE Scrap	(1) can, (1) wire	NA
	8	m61L	Non OE Scrap	(3) pop tops	NA
A115					

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	1	M6-1L	Non OE Scrap	wire, nails	NA
	2	M6-1L	Non OE Scrap	(1) top of a can	NA
	3	M6-1L	Non OE Scrap	nail pit	NA
	4	M6-1L	Non OE Scrap	nails	NA
	5	M6-1L	Non OE Scrap	(1) metal rod, 24'	NA
	6	M6-1L	Non OE Scrap	(1) metal rod, 36x.75'	NA
	7	M6-1L	Non OE Scrap	nail pit	NA
	8	M6-1L	Non OE Scrap	(1) rebar, 48'	NA
	9	M6-1L	Non OE Scrap	(1) metal pan, folded over	NA
	10	M6-1L	Non OE Scrap	(5) nails	NA
	11	M6-1L	Non OE Scrap	(1) tent stake, 12x.5'	NA
	12	M6-1L	Non OE Scrap	nails	NA
	13	M6-1L	Non OE Scrap	nail pit	NA
	14	M6-1L	Non OE Scrap	(1) can lid, 14' dia.	NA
	15	M6-1L	Non OE Scrap	(1) ground anchor (tie down)	NA
	16	M6-1L	Non OE Scrap	nails	NA
	17	M6-1L	Non OE Scrap	nails	NA
	18	M6-1L	Non OE Scrap	scattered nails	NA
	19	M6-1L	Non OE Scrap	scattered nails	NA
A117					
	1	m61L	Small Arms	(1) small arm, cartridge 5.56mm, (1) metal top	other
	2	m61L	Non OE Scrap	(1) bolt	NA
	4	m61L	OE Scrap-M	hand grenade debris, smoke; (1) small arm, cartridge 5.56mm, (1) small arm, cartridge .30cal	other
	7	m61L	Small Arms	(1) small arm, cartridge blank 5.56mm	other
	8	m61L	Small Arms	(4) small arms, cartridges blank 5.56mm, (1) can	other
	10	m61L	Non OE Scrap	burn pit- cans, wire	NA
	11	m61L	Non OE Scrap	(2) tent pole ends	NA
	18	m61L	Non OE Scrap	(1) cleaning rod, (1) trip flare bracket	NA
A118					

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	1	M6-1L	Non OE Scrap	(1) fence post	NA
	2	M6-1L	Non OE Scrap	wire	NA
	3	M6-1L	Non OE Scrap	nails	NA
	4	M6-1L	Non OE Scrap	trash pit, (1) metal can, wire, (3) nails	NA
	5	M6-1L	Non OE Scrap	nail pit	NA
	6	M6-1L	Non OE Scrap	(1) horse shoe	NA
	7	M6-1L	Non OE Scrap	wire	NA
	8	M6-1L	Non OE Scrap	wire	NA
	9	M6-1L	Non OE Scrap	(1) fence post	NA
	10	M6-1L	Non OE Scrap	(1) beer can	NA
	11	M6-1L	Non OE Scrap	nails	NA
	11	M6-1L	Non OE Scrap	nails	NA
	12	M6-1L	Non OE Scrap	(1) large bolt	NA
	13	M6-1L	Non OE Scrap	(1) bolt	NA
	14	M6-1L	Non OE Scrap	(1) horse shoe	NA
	15	M6-1L	Non OE Scrap	barbed wire	NA
	16	M6-1L	Small Arms	7.62mm brass, (1) nail	other
	17	M6-1L	Non OE Scrap	wire	NA
	18	M6-1L	Non OE Scrap	wire	NA
	19	M6-1L	Non OE Scrap	wire	NA
	20	M6-1L	Non OE Scrap	wire	NA
A120					
	1	M6-1L	Non OE Scrap	(1) part of a vehicle jack	NA
	2	M6-1L	Non OE Scrap	(1) metal pole	NA
	3	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	4	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	5	M6-1L	Non OE Scrap	(1) pipe	NA
	6	M6-1L	OE Scrap	(1) flare container	other
	7	M6-1L	Non OE Scrap	(1) grounding strap	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	8	M6-1L	Non OE Scrap	(1) drum lid	NA
	9	M6-1L	Non OE Scrap	(1) horse shoe	NA
	10	M6-1L	Non OE Scrap	(1) grounding rod	NA
	11	M6-1L	Non OE Scrap	nail pit	NA
	12	M6-1L	Non OE Scrap	(1) large bolt	NA
	13	M6-1L	Non OE Scrap	wire	NA
A121					
	1	M6-1L	Non OE Scrap	small pieces of aluminum foil	NA
	2	M6-1L	Non OE Scrap	(1) pipe	NA
	3	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	4	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	5	M6-1L	Non OE Scrap	(1) piece of a horse shoe	NA
	6	M6-1L	Non OE Scrap	(1) beer can	NA
	7	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	8	M6-1L	Non OE Scrap	(1) large stake	NA
	9	M6-1L	Non OE Scrap	(1) large piece of metal	NA
	10	M6-1L	Non OE Scrap	(1) horse shoe	NA
	11	M6-1L	Non OE Scrap	(1) small piece of metal	NA
A122					
	1	M6-1L	Non OE Scrap	(1) metal plate	NA
	2	M6-1L	OE Scrap-M	(1) land mine, MI, practice	other
	3	M6-1L	Non OE Scrap	(1) metal bracket	NA
	4	M6-1L	Non OE Scrap	burn pit	NA
	5	M6-1L	Small Arms	brass 7.62	other
	6	M6-1L	Non OE Scrap	beer cans	NA
	7	M6-1L	Non OE Scrap	(1) clothes hanger	NA
	8	M6-1L	Non OE Scrap	trash pit, scrap metal	NA
	9	M6-1L	Non OE Scrap	(1) pipe	NA
	10	M6-1L	Non OE Scrap	nails, (1) washer, (1) piece of horse shoe	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	11	M6-1L	Non OE Scrap	beer cans	NA
A123					
	1	M6-1L	Non OE Scrap	(1) aluminum can	NA
	2	M6-1L	Non OE Scrap	(1) rebar, 60x.33'	NA
	3	M6-1L	Non OE Scrap	(1) wire, 12'	NA
	4	M6-1L	Non OE Scrap	(1) metal bracket, 6x3'	NA
	5	M6-1L	Non OE Scrap	(1) pipe, 6in diameter	NA
	6	M6-1L	Non OE Scrap	(1) rod, long, vertical, still anchored in ground	NA
	7	M6-1L	Non OE Scrap	(1) scrap metal	NA
A124					
	1	m61L	Non OE Scrap	(4) wires	NA
	6	m61L	Non OE Scrap	(1) can	NA
	7	m61L	OE Scrap-M	(1) mine, anti tank, practice, M12	other
	7	m61L	UXO	(1) hand grenade, smoke, M18	other
	8	m61L	Non OE Scrap	(1) shock absorber	NA
	8	m61L	Non OE Scrap	(1) stainless steel pin	NA
	9	m61L	Non OE Scrap	(1) 55gal barrel	NA
	10	m61L	NA	part of anomaly A124009	NA
	11	m61L	Non OE Scrap	(1) bolt	NA
	12	m61L	NA	part of anomaly A124011	NA
	16	m61L	Non OE Scrap	burn pit, (7) metal handles, (2) washers, (7) nails	NA
	17	m61L	NA	part of anomaly A124016	NA
	18	m61L	Small Arms	(1) small arm, cartridge 30cal, (3) nails	other
	29	m61L	Non OE Scrap	(4) nails, scrap metal	NA
	29	m61L	OE Scrap-M	(1) mine, anti tank, practice, M12	other
	35	m61L	Non OE Scrap	(3) steel plates	NA
	36	m61L	Non OE Scrap	(2) metal coat hangers	NA
	37	m61L	Non OE Scrap	rebar	NA
	40	m61L	Non OE Scrap	(1) bolt	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	40	m61L	Non OE Scrap	(1) metal bracket	NA
	40	m61L	Non OE Scrap	(2) metal brackets	NA
A126					
	1	M6-1L	Small Arms	7.62 brass, (2) nails	other
	2	M6-1L	Non OE Scrap	(1) metal connector	NA
	3	M6-1L	Non OE Scrap	nails	NA
	4	M6-1L	Non OE Scrap	(1) gounding strap	NA
	5	M6-1L	Non OE Scrap	(1) metal handle	NA
	6	M6-1L	Non OE Scrap	nails, small pieces of metal	NA
	7	M6-1L	Non OE Scrap	(1) part of a can	NA
	8	M6-1L	Non OE Scrap	(1) bolt	NA
	9	M6-1L	Non OE Scrap	(1) beer can, (1) nail, (1) small piece of metal	NA
	10	M6-1L	Non OE Scrap	(1) large piece of metal	NA
A127					
	1	M6-1L	Non OE Scrap	(1) anchor for telephone wire	NA
A128					
	1	M6-1M	Non OE Scrap	(1) 4in pipe set in concrete	NA
	2	M6-1M	Non OE Scrap	(1) steel box	NA
	3	M6-1M	NA	part of anomaly A128002	NA
	4	M6-1M	Non OE Scrap	(1) metal grounding rod	NA
	5	M6-1M	Non OE Scrap	(1) metal strap	NA
	6	M6-1M	Small Arms	30cal brass, (1) magazine stripper, banding material	other
	7	M6-1M	Non OE Scrap	(1) metal bracket	NA
	8	M6-1M	Non OE Scrap	wire	NA
	9	M6-1M	OE Scrap	(1) rocket warhead, 2.36in, wax filled	2.36 inch
	10	M6-1M	Non OE Scrap	(1) angle iron	NA
	11	M6-1M	Non OE Scrap	(1) steel can top	NA
	12	M6-1M	Non OE Scrap	(1) metal bar	NA
	13	M6-1M	Non OE Scrap	(1) metal fence post	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	14	M6-1M	Non OE Scrap	(1) screen door frame	NA
	15	M6-1M	Small Arms	30cal brass, wire	other
	16	M6-1M	Non OE Scrap	part of anomaly A128014	NA
	17	M6-1M	Non OE Scrap	part of anomaly A128014	NA
	18	M6-1M	Non OE Scrap	part of anomaly A128014	NA
	19	M6-1M	Non OE Scrap	(1) pipe	NA
	20	M6-1L	Non OE Scrap	(1) metal portion of audio speakers	NA
	21	M6-1L	Small Arms	30cal brass	other
	22	M6-1L	Small Arms	30cal brass	other
	23	M6-1L	Non OE Scrap	(1) top of 30cal ammo can	NA
	24	M6-1L	Non OE Scrap	(1) metal strap	NA
	25	M6-1L	Small Arms	small arms brass, 30cal	other
	26	M6-1L	Non OE Scrap	(1) horse shoe	NA
	27	M6-1L	Non OE Scrap	(1) flat piece of metal	NA
	28	M6-1L	Non OE Scrap	wire	NA
	29	M6-1L	Non OE Scrap	wire	NA
	30	M6-1L	Non OE Scrap	(1) Coke can	NA
	31	M6-1L	Small Arms	30cal brass	other
	32	M6-1L	Non OE Scrap	(1) nail	NA
	33	M6-1L	Non OE Scrap	nails	NA
	35	M6-1L	Non OE Scrap	(1) angle iron	NA
	36	M6-1L	Non OE Scrap	barbed wire	NA
	37	M6-1L	Non OE Scrap	(1) 4'x6' metal plate, (1) metal strap 40"x2"	NA
	38	M6-1L	Non OE Scrap	(1) metal strap	NA
	39	M6-1L	Non OE Scrap	(1) 6"x.25" wire	NA
A129					
	1	M6-1L	Non OE Scrap	(1) pipe	NA
	2	M6-1L	Non OE Scrap	(1) metal strap	NA
	3	M6-1L	Non OE Scrap	(1) pipe	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	4	M6-1L	Non OE Scrap	(1) metal strap	NA
	5	M6-1L	Non OE Scrap	metal plates	NA
	6	M6-1L	Non OE Scrap	(1) hoe head	NA
	7	M6-1L	Non OE Scrap	electrical wire	NA
	8	M6-1L	Non OE Scrap	(1) nail	NA
	9	M6-1L	Non OE Scrap	(1) metal culvert. left in place	NA
	10	M6-1L	Non OE Scrap	(1) metal plate	NA
	11	M6-1L	Non OE Scrap	(1) metal band	NA
	12	M6-1L	Non OE Scrap	(1) water valve	NA
	13	M6-1L	Non OE Scrap	(1) metal ring	NA
	14	M6-1L	OE Scrap-M	(1) slap flare	other
	15	M6-1L	Non OE Scrap	(1) pipe	NA
	16	M6-1L	Non OE Scrap	part of anomaly A129015	NA
A130					
	1	M6-1M	Non OE Scrap	(1) metal plate	NA
	2	M6-1M	Non OE Scrap	(1) metal sign	NA
	3	M6-1M	OE Scrap	(1) practice rocket minus nose	3.5 inch
	4	M6-1M	Small Arms	5.56mm brass	other
	5	M6-1M	Small Arms	5.56mm brass	other
	6	M6-1M	Small Arms	5.56mm brass	other
	7	M6-1M	Small Arms	5.56mm brass	other
	8	M6-1M	Non OE Scrap	(1) metal sign	NA
	9	M6-1M	Non OE Scrap	(1) metal sign	NA
A131					
	1	M6-1L	Non OE Scrap	(1) metal plate	NA
	2	M6-1L	Non OE Scrap	(1) pipe	NA
	3	M6-1L	Non OE Scrap	(1) aluminum angle iron frame	NA
	4	M6-1L	Non OE Scrap	(1) 'D' cell battery	NA
	5	M6-1L	Non OE Scrap	(8) metal fence posts in a row	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	6	M6-1L	Non OE Scrap	part of anomaly A131005	NA
	7	M6-1L	Non OE Scrap	(1) metal sign	NA
	8	M6-1L	Non OE Scrap	grounding	NA
	9	M6-1L	Non OE Scrap	(1) horse shoe	NA
	10	M6-1L	Non OE Scrap	burn pit- metal pieces, nails, cans	NA
	11	M6-1L	Non OE Scrap	burn pit-nails, cans, metal pieces	NA
A132					
	1	M6-1M	Non OE Scrap	steel cable	NA
	2	M6-1M	Non OE Scrap	(1) grenade pin, (1) ammo link, (1) stipper clip	other
	3	M6-1M	OE Scrap-M	(1) practice grenade fuze, functioned	other
	4	M6-1M	OE Scrap-M	(1) practice grenade fuze, functioned	other
	5	M6-1M	Non OE Scrap	cable	NA
	6	M6-1M	Non OE Scrap	part of anomaly A132005	NA
	7	M6-1M	OE Scrap-M	(1) training hand grenade	other
	8	M6-1M	Non OE Scrap	(1) horse shoe	NA
	9	M6-1M	Non OE Scrap	(1) M60m belt link	NA
A135					
	1	m61M	Non OE Scrap	(1) hoe head	NA
	2	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	3	m61M	Non OE Scrap	(1) hoe head, scrap metal	NA
	4	m61M	Non OE Scrap	scrap metal	NA
	5	m61M	Non OE Scrap	(1) hoe head	NA
	10	m61M	Non OE Scrap	(1) plow point	NA
	11	m61M	Small Arms	(2) small arms, projectiles 30cal	other
A136					
	1	m61M	Non OE Scrap	(1) banding clip	NA
	2	m61M	Non OE Scrap	barbed wire	NA
	3	m61M	Non OE Scrap	(1) bolt	NA
	4	m61M	Non OE Scrap	(1) bolt	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	5	m61M	Non OE Scrap	(1) bolt	NA
	6	m61M	Non OE Scrap	barbed wire	NA
	7	m61M	OE Scrap	(1) rocket motor debris, 2.36in,	2.36 inch
	8	m61M	Non OE Scrap	(1) bolt	NA
	9	m61M	Non OE Scrap	wire	NA
	10	m61M	Non OE Scrap	wire	NA
	11	m61M	Non OE Scrap	(1) bolt	NA
	12	m61M	Non OE Scrap	wire	NA
	13	m61M	Small Arms	(1) small arm, cartridge 7.62mm	other
	14	m61M	Non OE Scrap	(1) bolt	NA
	15	m61M	Non OE Scrap	(1) chain	NA
	16	m61M	Non OE Scrap	(1) bolt	NA
	17	m61M	NA	part of anomaly A136016	NA
	18	m61M	Small Arms	(3) small arms, cartridges 7.62mm	other
	19	m61M	Non OE Scrap	barbed wire	NA
	20	m61M	Non OE Scrap	barbed wire	NA
	21	m61M	Non OE Scrap	barbed wire	NA
	22	m61M	Non OE Scrap	barbed wire	NA
	23	m61M	Non OE Scrap	barbed wire	NA
	24	m61M	Small Arms	(1) small arm, cartridge 7.62mm, scrap metal	other
	25	m61M	OE Scrap-M	(1) signal, illumination, flare scrap	other
	26	m61M	Small Arms	(10) small armz, cartridges 5.56mm	other
	27	m61M	Non OE Scrap	barbed wire	NA
	28	m61M	Non OE Scrap	(1) ammo can lid	NA
	29	m61M	Non OE Scrap	barbed wire	NA
	30	m61M	Non OE Scrap	barbed wire	NA
A137					
	3	M6-1L	Small Arms	bullets	other
	13	M6-1L	Small Arms	bullets	other

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	16	M6-1L	Non OE Scrap	barbed wire	NA
	17	M6-1L	Non OE Scrap	barbed wire	NA
A138					
	1	M6-1M	Non OE Scrap	(1) shackle	NA
	2	M6-1M	Non OE Scrap	barbed wire, 36'	NA
	3	M6-1M	Non OE Scrap	(1) j-bolt	NA
	4	M6-1M	Non OE Scrap	(1) hinge, nails	NA
	5	M6-1M	Non OE Scrap	scrap metal, 5x2'	NA
	6	M6-1M	Non OE Scrap	(1) metal rod, 6x.5'	NA
	7	M6-1M	Non OE Scrap	(1) rifle cleaning rod	NA
	8	M6-1M	Non OE Scrap	(1) threaded rod	NA
	9	M6-1M	Non OE Scrap	(1) threaded rod, anchored in ground	NA
	10	M6-1M	Non OE Scrap	(1) threaded rod, 24'	NA
	11	M6-1M	Non OE Scrap	barbed wire, 24'	NA
	12	M6-1M	Non OE Scrap	(1) rebar, 30x.3'	NA
	13	M6-1M	Small Arms	7.62 blanks	other
	14	M6-1M	Non OE Scrap	(1) threaded rod, andhored	NA
	15	M6-1M	Non OE Scrap	(1) threaded rod, anchored	NA
	16	M6-1M	Small Arms	7.62 blanks	other
	17	M6-1M	NA	outside grid where rebar QC was placed	NA
A140					
	1	m61M	UXO	(1) mortar, 60mm, M49A2	60 mm
	2	m61M	OE Scrap	frag, unknown	NA
	3	m61M	OE Scrap	frag, unknown	NA
	4	m61M	Non OE Scrap	(1) horse shoe	NA
	5	m61M	OE Scrap	frag, unknown	NA
	6	m61M	OE Scrap	frag, unknown	NA
	7	m61M	OE Scrap	frag, unknown	NA
	8	m61M	OE Scrap	frag, unknown	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
A141					
	1	M61L	OE Scrap	grenades, rifle and smoke, Mk2	other
	2	M61L	Small Arms	5.56mm blank rounds	other
M61M00					
	1	M61M	Non OE Scrap	(1) metal plate	NA
	1	M61M	OE Scrap	(2) smoke balls	NA
	2	M61M	Non OE Scrap	(1) metal cylinder	NA
	3	M61M	Non OE Scrap	(1) culvert	NA
	4	M61M	Non OE Scrap	(1) culvert	NA
	5	M61M	Non OE Scrap	(1) culvert	NA
	6	M61M	Non OE Scrap	wire	NA
	7	M61M	Non OE Scrap	(1) culvert	NA
	8	M61M	Non OE Scrap	(1) culvert	NA
	9	M61M	Non OE Scrap	wire	NA
	10	M61M	Non OE Scrap	wire	NA
M61M00					
	1	M61M	Non OE Scrap	(9) concrete filled bombs	NA
	1	M61M	Non OE Scrap	(1) bolt	NA
	2	M61M	Small Arms	brass, (1) metal piece	NA
	3	M61M	Non OE Scrap	nails	NA
M61M00					
	3	M61M	OE Scrap	(1) fragment, 40mm	40mm
M61M00					
	1	M61M	OE Scrap	LAW fragment	
M61M01					
	2	M61M	UXO	(2) mortars, 60mm	60mm
T003					
	1	M6-1M	Non OE Scrap	(1) metal plate	NA

Grid ID	Anomaly ID	Sector	Target Type	Dig Comments	Ord Size
	2	M6-1M	Non OE Scrap	nail bed	NA
	3	M6-1M	Non OE Scrap	nail bed	NA
	4	M6-1M	Non OE Scrap	(1) metal rod	NA
	5	M6-1M	Non OE Scrap	(1) metal plate	NA
	6	M6-1M	Non OE Scrap	(1) metal piece	NA
	7	M6-1M	Non OE Scrap	wire	NA
	8	M6-1M	Small Arms	bullets	NA
	9	M6-1M	Non OE Scrap	55gal barrel	NA
	10	M6-1M	Small Arms	brass	NA

PARSON'S TECHNOLOGY FIELD INVESTIGATION

Table 8.1
Smoke Range
Field Investigation Summary
Fort McClellan, Alabama

Grid ID	Anomaly ID	Intrusive Date	Easting (ft)	Northing (ft)	Anom. Type	Findings	Number of contacts	Anom. Depth (inches)	Frag Wt. (lbs)	Scrap Wt. (lbs)	Disposition	Comments
SR-2	SR-2-1	4/11/01	674195.19	1174621.06	OS	75mm projectile, empty	6	12	4		Removed	
SR-3	SR-3-1	4/11/01	674711.69	1174459.02	O	Hot rocks	4	6			left in place	
SR-4	SR-4-1	4/11/01	675350.25	1173937.42	S	Bucket	1	18		3	left in place	
SR-4	SR-4-2	4/11/01	675364.79	1173975.64	O	Hot rocks	8	24			left in place	
SR-6	SR-6-1	4/11/01	675693.69	1173164.43	S	Mop head, hot rocks	7	18		1	left in place	
SR-6	SR-6-2	4/11/01	675617.73	1173217.52	S	Barbed wire, hot rocks	4	24		6	left in place	
SR-8	SR-8-1	4/12/01	675647.56	1172823.51	S	Drum lids	3	6		8	left in place	
SR-8	SR-8-2	4/12/01	675650.79	1172864.70	OS	Dummy grenade, hot rocks	3	12	3		Removed	
SR-8	SR-8-3	4/12/01	675682.31	1172856.54	S	Beer can, hot rocks	3	6		1	left in place	
SR-8	SR-8-4	4/12/01	675686.67	1172841.93	O	Hot rocks	3	24			left in place	
SR-8	SR-8-5	4/12/01	675715.72	1172833.57	S	Barbed wire, hot rocks	3	24		12	left in place	
SR-9	SR-9-1	4/11/01	674818.27	1172748.67	O	Hot rocks	4	24			left in place	
SR-9	SR-9-2	4/11/01	674820.91	1172755.79	O	Hot rocks	4	12			left in place	
SR-9	SR-9-3	4/11/01	674808.50	1172767.58	O	Hot rocks	5	12			left in place	
SR-9	SR-9-4	4/11/01	674815.82	1172788.32	O	Hot rocks	5	6			left in place	
SR-9	SR-9-5	4/11/01	674850.61	1172787.51	O	Hot rocks	2	24			left in place	
SR-11	SR-11-1	4/11/01	675988.26	1172357.46	O	Hot rocks	7	24			left in place	
SR-11	SR-11-2	4/11/01	675957.40	1172393.12	S	Horseshoe, hot rocks	5	12		1	left in place	
SR-11	SR-11-3	4/11/01	675995.48	1172401.54	O	Hot rocks	3	24			left in place	
SR-11	SR-11-4	4/11/01	675976.24	1172430.39	O	Hot rocks	3	12			left in place	
SR-12	SR-12-1	4/12/01	676474.50	1172257.69	OS	Grenade base	3	6	1		Removed	
SR-12	SR-12-2	4/12/01	676482.75	1172254.00	S	Can lid, nails	1	6		1	left in place	
SR-12	SR-12-3	4/12/01	676436.94	1172255.76	OS	7.62 metal clips	7	0	1		Removed	
SR-13	SR-13-1	4/12/01	675756.03	1172186.14	O	Hot rocks	3	12			left in place	
SR-13	SR-13-2	4/12/01	675783.19	1172222.60	O	Hot rocks	3	12			left in place	
SR-14	SR-14-1	4/12/01	675927.82	1172076.12	S	Galvinized roofing 2' x 6'	1	8		15	left in place	
SR-14	SR-14-2	4/12/01	675928.01	1172057.52	S	Comm wire	2	6		2	left in place	
SR-14	SR-14-3	4/12/01	675951.93	1172054.49	S	Horseshoe, hot rock	3	8		2	left in place	
SR-14	SR-14-4	4/12/01	675990.09	1172040.44	S	Glow plug	5	6		1	left in place	
SR-14	SR-14-5	4/12/01	676021.61	1172022.98	S	Nails	6	6		1	left in place	
SR-15	SR-15-1	4/12/01	676524.02	1172065.94	S	Barbed wire	3	6		2	left in place	

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SR-15	SR-15-2	4/12/01	676536.86	1172091.61	S	Barbed wire	2	6		2	left in place	
SR-15	SR-15-3	4/12/01	676597.52	1172100.54	S	55-gal lid clamp	4	6		3	left in place	
SR-15	SR-15-4	4/12/01	676527.19	1172105.94	S	Beer can, barbed wire	11	6		1	left in place	
SR-15	SR-15-5	4/12/01	676545.79	1172108.91	OS	Smoke grenade, scrap metal	2	12	5		Removed	
SR-15	SR-15-6	4/12/01	676558.63	1172120.63	S	Horseshoe	1	8		2	left in place	
SR-15	SR-15-7	4/12/01	676545.24	1172129.56	S	Wire matting	1	6		1	left in place	
SR-15	SR-15-8	4/12/01	676576.31	1172131.79	S	Wire, hot rocks	4	8		0.5	left in place	
SR-15	SR-15-9	4/12/01	676586.17	1172140.17	S	Horseshoe	1	6		2	left in place	
SR-15	SR-15-10	4/12/01	676545.05	1172145.37	S	Wire matting	1	8		1	left in place	
SR-15	SR-15-11	4/12/01	676575.38	1172150.58	S	Fence wire	2	6		1	left in place	
SR-15	SR-15-12	4/12/01	676558.82	1172150.77	S	Fence wire	2	6		1	left in place	
SR-15	SR-15-13	4/12/01	676538.35	1172151.33	S	Fence wire	2	6		1	left in place	
SR-15	SR-15-14	4/12/01	676567.19	1172154.86	S	Fence wire	2	6		1	left in place	
SR-15	SR-15-15	4/12/01	676551.38	1172155.42	S	Fence wire	2	6		1	left in place	
SR-15	SR-15-16	4/12/01	676538.91	1172159.14	S	Beer can, hot rocks	2	12		0.5	left in place	
SR-15	SR-15-17	4/12/01	676581.71	1172161.19	OS	Slap flare	1	6	1		Removed	
SR-15	SR-15-18	4/12/01	676558.07	1172162.12	S	Fence wire	2	6		1	left in place	
SR-16	SR-16-1	4/12/01	676272.19	1171859.06	S	Beer can	1	0		0.5	left in place	
SR-16	SR-16-2	4/12/01	676277.06	1171967.93	S	Beer can, paint can lid	2	6		1	left in place	
SR-16	SR-16-3	4/12/01	676271.32	1171901.00	S	Brake caliper	1	8		3	left in place	
SR-16	SR-16-4	4/12/01	676366.72	1171891.95	S	Tent stake, hot rock	4	12		1	left in place	
SR-16	SR-16-5	4/12/01	676348.44	1171917.19	S	55-gal lid clamp	2	6		3	left in place	
SR-16	SR-16-6	4/12/01	676297.61	1171914.41	S	Nails	11	6		3	left in place	
SR-16	SR-16-7	4/12/01	676299.52	1171924.68	S	Oil dip stick	2	6		1	left in place	
SR-16	SR-16-8	4/12/01	676336.43	1171926.77	S	Bucket handle, wire	2	6		1	left in place	
SR-16	SR-16-9	4/12/01	676354.01	1171948.70	O	Hot rocks	7	12			left in place	
SR-16	SR-16-10	4/12/01	676282.81	1171937.21	S	Sheet metal 2' x 4'	1	6		10	left in place	
SR-16	SR-16-11	4/12/01	676272.19	1171925.90	OS	37mm frag, hot rocks	6	24	1		Removed	
SR-17	SR-17-1	4/12/01	676143.53	1171729.14	S	Metal bar	1	36		10	left in place	
SR-17	SR-17-2	4/12/01	676144.09	1171735.89	S	Metal hoop	2	12		3	left in place	
SR-17	SR-17-3	4/12/01	676155.16	1171743.02	S	Oil can, metal lid	2	6		2	left in place	

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SR-17	SR-17-4	4/12/01	676132.46	1171753.15	S	Metal pipe/1"dia x 18"/paint can	3	8		4	left in place	
SR-17	SR-17-5	4/12/01	676138.46	1171756.15	S	Metal pipe/1"dia x 18"/paint can	3	8		4	left in place	
SR-17	SR-17-6	4/12/01	676142.59	1171761.59	S	Rebar0.5" x 24"/paint can lid	4	8		11	left in place	
SR-17	SR-17-7	4/12/01	676126.08	1171759.34	S	Metal banding/nails	11	6		2	left in place	
SR-17	SR-17-8	4/12/01	676116.32	1171746.02	S	Metal banding/nails	11	6		2	left in place	
SR-17	SR-17-9	4/12/01	676138.84	1171775.10	S	Paint can lid/ hot racks	6	36		1	left in place	
SR-17	SR-17-10	4/12/01	676159.29	1171784.67	S	Hasp w/lock/paintcan/ wire	4	8		3	left in place	
SR-17	SR-17-11	4/12/01	676138.27	1171804.55	O	Hot Rocks	3	8			left in place	
SR-17	SR-17-12	4/12/01	676120.63	1171810.37	OS	7.62 links/wire mesh	6	6	1		Removed	
SR-18	SR-18-1	4/12/01	675662.94	1171530.40	S	Fence wire	1	36		5	left in place	
SR-18	SR-18-2	4/12/01	675665.95	1171548.46	S	Wire	3	6		2	left in place	
SR-18	SR-18-3	4/12/01	675618.67	1171576.78	S	Metal plate/nails/hot rocks	4	12		3	left in place	
SR-18	SR-18-4	4/12/01	675635.14	1171587.23	O	Hot Rocks	3	18			left in place	
SR-18	SR-18-5	4/12/01	675628.76	1171599.80	S	Pipe 1" x 18"	1	6		2	left in place	
SR-18	SR-18-6	4/12/01	675658.51	1171603.17	S	Bolt/banding/hot rocks	4	18		1	left in place	
SR-18	SR-18-7	4/12/01	675645.76	1171607.77	S	Wire	1	6		1	left in place	
SR-18	SR-18-8	4/12/01	675687.56	1171601.57	S	Nails	4	6		1	left in place	
SR-19	SR-19-1	4/11/01	675943.04	1171351.10	S	Barbed wire	7	6		3	left in place	
SR-20	SR-20-1	4/11/01	675743.20	1171132.44	S	Axe head	1	8		4	left in place	
SR-20	SR-20-2	4/11/01	675776.18	1171128.82	S	Wire/can	2	8		2	left in place	
SR-20	SR-20-3	4/11/01	675788.96	1171146.35	S	Metal/can	4	12		3	left in place	
SR-20	SR-20-4	4/11/01	675787.81	1171166.56	S	Metal bar/steel beam/barrel clamp/can	5	18		15	left in place	
SR-20	SR-20-5	4/11/01	675802.49	1171169.61	S	Wire/can/nails	3	6		1	left in place	
SR-20	SR-20-6	4/11/01	675812.02	1171178.18	S	Stake/wire/can	4	6		3	left in place	
SR-20	SR-20-7	4/11/01	675831.66	1171158.93	S	Metal plate/cans/hot rocks	6	24		6	left in place	
SR-21	SR-21-1	4/11/01	676094.57	1170886.67	O	Hot Rocks	6	24			left in place	
SR-21	SR-21-2	4/11/01	676124.28	1170932.26	S	Hot rocks/nails	4	12		1	left in place	
SR-21	SR-21-3	4/11/01	676125.40	1170874.90	S	Horse shoe/hot rocks	4	18		2	left in place	
SR-22	SR-22-1	4/11/01	675770.89	1170891.85	S	Plow blade	4	12		11	left in place	
SR-23	SR-23-1	4/11/01	676100.34	1171091.88	S	Barbed wire/metal	2	8		1	left in place	
SR-23	SR-23-2	4/11/01	676184.65	1171093.07	O	Hot rocks	6	24			left in place	

Table 8.1
Smoke Range
Field Investigation Summary
Fort McClellan, Alabama

Grid ID	Anomaly ID	Intrusive Date	Easting (ft)	Northing (ft)	Anom. Type	Findings	Number of contacts	Anom. Depth (inches)	Frag Wt. (lbs)	Scrap Wt. (lbs)	Disposition	Comments
SR-23	SR-23-3	4/11/01	676189.76	1171103.29	OS	Dummy grnade/hot rocks	7	18	3		Removed	
SR-23	SR-23-4	4/11/01	676152.63	1171127.30	S	Barbed wire/hot rocks	3	18		2	left in place	
SR-23	SR-23-5	4/11/01	676196.23	1171139.05	S	Wire/hot dirt	3	12		1	left in place	
SR-23	SR-23-6	4/11/01	676173.92	1171154.20	O	Hot rocks	3	18			left in place	
SR-23	SR-23-7	4/11/01	676158.08	1171155.39	S	Wire /nails	4	12		1	left in place	
SR-23	SR-23-8	4/11/01	676154.68	1171164.42	S	Wire/ hot rocks	4	12		1	left in place	
SR-23	SR-23-9	4/11/01	676131.51	1171148.41	S	Wire/hot rocks	4	12		1	left in place	
SR-23	SR-23-10	4/11/01	676127.42	1171157.44	S	Barbed wire	1	0		2	left in place	
SR-23	SR-23-11	4/11/01	676125.38	1171166.80	S	Barbed wire	1	0		2	left in place	
SR-23	SR-23-12	4/11/01	767103.58	1171100.39	S	Barbed wire/metal	3	6		4	left in place	
SR-24	SR-24-1	4/11/01	675339.78	1170792.62	S	Barbed wire./romel post.hot rocks.	4	36		12	left in place	
SR-24	SR-24-2	4/11/01	675348.19	1170798.17	S	Barbed wire.nails/hot rocks	4	18		2	left in place	
SR-24	SR-24-3	4/11/01	675351.83	1170808.31	S	barbed wire	1	0		5	left in place	
SR-24	SR-24-4	4/11/01	675352.02	1170824.18	S	Barbed wire	3	18			left in place	
SR-24	SR-24-5	4/11/01	675355.08	1170852.48	S	Barbed wire	2	6		3	left in place	
SR-24	SR-24-6	4/11/01	675357.76	1170887.09	S	Barbed wire	2	6		1	left in place	
SR-24	SR-24-7	4/11/01	675413.99	1170851.33	S	Nails/hot rocks	3	12		0.5	left in place	
SR-24	SR-24-8	4/11/01	675417.43	1170865.10	S	Nails/hot rocks	3	12		0.5	left in place	
SR-24	SR-24-9	4/11/01	675399.65	1170795.49	O	Hot rocks	2	12			left in place	

O = other

S = scrap

OS = ordnance scrap

CS = chemical warfare materiel scrap

Table 7.1
Area T-38
Field Investigation Summary
Fort McClellan, Alabama

Grid ID	Anomaly ID	Intrusive Date	Easting (ft)	Northing (ft)	Anom. Type	Findings	Number of contacts	Anom. Depth (inches)	Frag Wt. (lbs)	Scrap Wt. (lbs)	Disposition	Comments
T38-567	T38-1	4/25/01	674928.29	1173086.09	S	Metal plate, comm wire, nails, scrap	4	10			Left in place	
T38-567	T38-2	4/25/01	674950.93	1173082.13	O	Hot rock	1	30			Left in place	
T38-567	T38-3	4/25/01	675002.40	1173079.60	O	Hot rock	1	36			Left in place	
T38-567	T38-4	4/24/01	675067.31	1173095.42	S	Barbed wire, sheet metal	3	12			Left in place	
T38-567	T38-5	4/24/01	675085.21	1173088.77	S	2x4 w/nails and hasp	5	8			Left in place	
T38-567	T38-6	4/24/01	675104.85	1173102.71	S	Comm. wire, 20-in wrench	2	12			Left in place	
T38-567	T38-7	4/24/01	675128.29	1173115.23	S	Steel pipe	1	18			Left in place	
T38-567	T38-8	4/24/01	675165.34	1173118.36	O	Hot rock	Multiple	12			Left in place	
T38-567	T38-9	4/24/01	675121.78	1173124.70	OS	Empty 75mm casing	1	0			Left in place	
T38-567	T38-10	4/24/01	675088.36	1173126.60	O	Hot rock	Multiple	12			Left in place	
T38-567	T38-11	4/24/01	675067.79	1173128.84	S	Concrete w/rebar in culvert	2	12			Left in place	
T38-4	T38-12	7/5/01	674956.79	1173607.33	CS	55-gal CWM drum, partial	1	48			Removed(3X)	Trench A: 20 ft long by 3 ft wide by 6 ft deep; T38-SS-8
											Left in place	Trench C: T38-SS-9
		7/5/01			O	White residue, burlap					Left in place	Trench D: T38-SS-6, T38-SS-7
		6/14/01			S	STB drums	3	60				Trench B: PID = 3 ppm, nothing found
		7/5/01										
T38-4	T38-13	5/16/01	674952.99	1173631.83	S	30-gal STB drum	1	42			Left in place	Trench A: 21 ft long by 3 ft wide by 4 ft deep; PID = 3 ppm
											Removed(3X)	Trench A: T38-SS-1 (top), T38-SS-2(under)
		5/16/01			CS	55-gal CWM drum	1	42			Removed(3X)	Trench A: T38-SS-3
		5/17/01			CS	4.2-in mortar	1	36			Left in place	Trench B: 23 ft long by 3 ft wide by 3.5 ft deep
		5/21/01			S	Metal lid	1				Left in place	Trench B:
		5/21/01			S	Crushed DS2 container	1				Left in place	Trench B:
		5/21/01			S	Rusted STB drums	1	36			Removed	Trench B:
		5/21/01			OS	Aluminum spheres, FS smoke	Multiple				Removed(3X)	Trench C: 31 ft long by 3 ft wide by 6 ft deep; vial headspaced
		5/21/01			S	Glass vial w/metal cap, 4" by 1"	1					
											Removed(3X)	Trench C: headspaced spheres
		5/21/01			OS	Aluminum spheres, FS smoke	Multiple				Removed(3X)	Trench C: T38-SS-4, T38-SS-5, headspaced
		5/22/01			CS	55-gal CWM drum	1				Left in place	Trench C:
		5/22/01			S	Rusted STB drums	1				Removed(3X)	Trench C: X-ray, PINSed, headspaced
		5/22/01			CS	4.2-in mortar	1	72			Removed(3X)	Trench D: 16 ft long by 3 ft wide by 9.5 ft deep; headspaced
		6/11/01			CS	4.2-in mortar, charred soils	1	66				
											Removed(3X)	Trench D: headspaced vial
		6/12/01			CS	Vial from CAIS kit	1				Removed(3X)	Trench D:
		6/13/01			S	Bottle 2.5"x6", brown, uncapped	1				Removed(3X)	Trench D: T38-SS-6, T38-SS-7, headspaced
		6/14/01			CS	55-gal CWM drum	1	12			Left in place	Trench D:
		6/14/01			S	Rusted STB drums	1	36				
T38-4	T38-14	5/15/01	675006.94	1173633.01	O	Hot rocks	1	18			Left in place	
T38-4	T38-15	5/15/01	674926.13	1173642.52	O	Hot rocks	1	12			Left in place	
T38-4	T38-16	5/15/01	674964.95	1173635.39	S	Metal	1	6		2.00	Left in place	
T38-123	T38-17	4/25/01	674964.95	1173690.34	O	Hot rocks	2	12			Left in place	
T38-123	T38-18	4/25/01	674906.79	1173684.62	O	Hot rocks and soil	1	18			Left in place	

Table 7.1
Area T-38
Field Investigation Summary
Fort McClellan, Alabama

Grid ID	Anomaly ID	Intrusive Date	Easting (ft)	Northing (ft)	Anom. Type	Findings	Number of contacts	Anom. Depth (inches)	Frag Wt. (lbs)	Scrap Wt. (lbs)	Disposition	Comments
T38-123	T38-19	4/25/01	674909.56	1173721.07	O	Hot rocks and soil	1	12			Left in place	PID = 8 ppm
T38-123	T38-20	4/25/01	674884.85	1173789.83	S	Steel coil stake	1	45			Left in place	
T38-123	T38-21	4/25/01	674913.12	1173832.66	S	Nails, cleaning rod handle, 30.06 casings, hasp	1	36			Removed 30.06 casings	
T38-123	T38-22	4/25/01	674890.35	1173851.33	S	Rebar, 3 ft long	1	36			Left in place	
T38-123	T38-23	4/25/01	674850.16	1173862.45	O	Hot rock	1	18			Left in place	
T38-123	T38-24	4/25/01	674811.43	1173868.49	O	Hot rock	1	20			Left in place	
T38-123	T38-25	4/25/01	674826.30	1173895.14	S	Hydroaxe blade	1	20			Left in place	
SAIC	T38-SA-1					Combined with T38-12					Left in place	
SAIC	T38-SA-2					Combined with T38-12					Left in place	
SAIC	T38-SA-3	4/25/01			O	Hot rock	1	42			Left in place	
Water tower -SS1		7/9/01			S	Drum					Left in place	Partially buried w/small hole -Sampled inside
Water tower -SS2		7/9/01			S	Drum					Left in place	Open drum - sampled vegetation inside
Water tower -SS3		7/9/01			S	Drum					Left in place	Broken - sampled along the side
Water tower -SS4		7/9/01			CS	CWM Drum					Removed(3X)	Sampled soil underneath (SS1)
Water tower -SS5		7/9/01			S	Drum					Left in place	Sampled the contents of the above drum

Notes:

Northing, easting = approximate center of anomaly

Anomaly Type: CS = chemical warfare materiel scrap, OS = ordnance scrap, S = other metallic scrap, O = other, NI = not investigated

Hot rock/soil = rock or soil that exhibits a strong response on a metal detector

APPENDIX E

LAND USE CONTROL ASSURANCE PLAN

(LUCAP)

MEMORANDUM OF AGREEMENT
AMONG
U.S. ENVIRONMENTAL PROTECTION AGENCY
THE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
THE
U.S. DEPARTMENT OF THE ARMY
FOR FORT MCCLELLAN
AND THE
ANNISTON-CALHOUN COUNTY FORT MCCLELLAN DEVELOPMENT
JOINT POWERS AUTHORITY

THIS AGREEMENT, constituting the Land Use Control Assurance Plan (LUCAP) for Fort McClellan, is entered into this 12th day of December 2000, among the U.S. Environmental Protection Agency (U.S. EPA), the Alabama Department of Environmental Management (ADEM), the U.S. Department of the Army (Army) on behalf of Fort McClellan, Alabama, (FMC or Installation) and the U.S. Army Training and Doctrine Command (TRADOC), and the Joint Powers Authority (JPA), also referred to herein as "the Parties", for the specific purposes hereinafter set forth.

I. BACKGROUND

Fort McClellan was closed on September 30, 1999, in accordance with the 1995 Defense Base Closure and Realignment Commission recommendation, made in conformance with the provisions of the Defense Base Closure and Realignment Act of 1990, Public Law 101-510 as amended (PL 101-510)(BRAC). The Army is disposing of excess and surplus property at FMC resulting from implementing the BRAC 1995 decision to close FMC. The Army is required under applicable law, regulation, and policy to dispose of excess and surplus property where feasible.

FMC consists of two main areas of government-owned land, the Main Post (approximately 18,929 acres, including 12,000 acres of undeveloped mountains) and Pelham Range (approximately 22,245 acres). Pelham Range and approximately 324 acres of Main Post will remain Army

property for use by reserve components. The FMC disposal area comprises approximately 18,605 acres (18,929 total Main Post acres less 324 acres to be retained for the reserve enclave). This includes areas that will be transferred to other federal agencies for their use. In addition, FMC leased approximately 4,500 acres of land, known as the Choccolocco Corridor, from the State of Alabama for training; and although the land has been returned to the State there are unresolved issues with regard to this property that will be examined further by the Army and ADEM. A consequence of the Army's disposal action is an opportunity for the community to obtain property for reuse at the former installation. The Army is neither responsible for nor does it control reuse of the property, although as a matter of policy the Army will attempt to dispose of the surplus property consistent with the reuse plan. Reuse planning was the responsibility of the Fort McClellan Development Commission; and the Anniston-Calhoun County Fort McClellan Development Joint Powers Authority (JPA), a successor organization, has adopted and is executing the final reuse plan.

The Army will maintain and provide security for FMC excess property while it remains in caretaker status prior to disposal. In addition, the Army is committed to the environmental cleanup of FMC as required under applicable laws and regulations. The Army may grant renewable leases, permits, and licenses, where appropriate, to permit interim use of real property at FMC prior to disposal. The Parties agree that the documentation, in a LUCAP, of land use controls (LUCs) developed to support these efforts will facilitate communication and is integral to the effectiveness of LUCs needed to protect human health and the environment.

Environmental restoration activities at FMC will focus on mitigating identified hazardous contamination caused by past training and waste disposal practices. Pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements, additional environmental site investigations and remediation are ongoing. Site remedy determinations take land use into account in order to facilitate the use of risk-based cleanup criteria and/or to prevent unacceptable risk in the case of long-term remediation. When complete, the remedial

investigations/feasibility studies (RI/FSs) and/or engineering evaluation/cost analyses (EE/CAs) conducted under CERCLA may result in the use of LUCs as part of the selected remedy. However, some LUCs may be established prior to or during the investigation process (e.g., site access controls, restrictions on contaminated media) that are deemed to be necessary to ensure protection of human health and the environment prior to remedy selection. All LUCs will be documented in accordance with the terms of this LUCAP.

The Army may transfer or convey property in an encumbered status to ensure protection of human health and the environment, to protect the interests of the United States, and to facilitate community reuse of the surplus property. Appropriate encumbrances will be determined on a site-specific basis and may be imposed prior to the selection of a CERCLA remedy. Army policy, in accordance with basic principles of real estate law, is to transfer properties with as few encumbrances as possible. Moreover, if feasible and consistent with applicable law, regulation, and policy, the Army intends to dispose of the surplus property consistent with the community's reuse plan developed by the local reuse authority. Transfer or conveyance will occur in phases as property is determined to be environmentally suitable for transfer.

Prior to any real property transfer involving potential unexploded ordnance (UXO) or chemical warfare materiel (CWM), an explosive safety submission must be reviewed by the Department of Defense Explosive Safety Board (DDESB) as required by Department of Defense (DOD) 6055.9 Standard (DOD Ammunition and Explosive Safety Standards), Army Regulation (AR) 385-64 (U.S. Army Explosives Safety Program), Army Pamphlet (DA Pam) 385-64 (Ammunition and Explosives Safety Standards), and Headquarters Department of the Army (HQDA) Letter 385-98-1 (Subject: Explosives Safety Policy for Real Property Containing Conventional Ordnance and Explosives). DDESB approval of explosive safety submissions is required for all UXO or CWM response actions specifically undertaken to prepare a property for transfer. DDESB does not review the completed project, but an after action report must be filed with DDESB. Due to the phased approach of property disposal, specific UXO investigations and removal actions will be accomplished over a period of several years based on

relevant factors including - but not limited to - public safety, planned community priorities, complexity of proposed removal actions, removal technology, funding availability/costs, and environmental impacts. Transfer documents will include UXO notice and restrictions as determined appropriate. In addition, LUCs established to restrict site access and otherwise enhance public safety will be documented in Appendices to this Agreement.

II. PURPOSE

The Purpose of this LUCAP is to:

a. Implement procedures to ensure the long-term effectiveness and viability of LUCs to protect human health and the environment.

b. Raise the visibility of LUCs for Parties, property owners and operators, local authorities, and the public in order to minimize the possibility of inadvertent violations of LUCs and to provide a process for information exchange.

c. Ensure that risk assumptions and land use assumptions upon which LUCs are based remain valid as long as the LUCs are relied upon to protect human health and the environment.

d. Develop a system of redundant or layered LUCs.

III. SCOPE

Environmental investigative activities being undertaken on sites at Fort McClellan have revealed and may in the future reveal contamination. These sites include, without limitation, those where CERCLA hazardous substances and pollutants or contaminants, and/or Resource Conservation and Recovery Act (RCRA) hazardous wastes or hazardous constituents, and/or petroleum products or derivatives were or may have been released into the environment as a result of activities conducted over the history of the Installation. The Parties intend to follow the National

Contingency Plan (NCP) and other applicable laws in addressing these sites.

Some of these sites are suspected or known to contain ordnance and explosives (OE) [unexploded ordnance (UXO) is a subset of OE], and/or biological simulants/ chemical warfare materiel (CWM)/radiological materials. At these OE sites, the Parties intend to follow a process consistent with CERCLA, including the use of removal actions, remedial actions, or a combination of the two, per the NCP. Site-specific data is necessary to determine the actual depth of clearance. In the absence of site-specific data, the DDESB table of assessment depths (DoD 6055.9-STD, Chapter 12) will be used for interim planning purposes until the required site-specific information is developed. It is expected that this site-specific information will be acquired and incorporated into the response process as it becomes available.

As a general rule, the Parties agree that sites not meeting residential reuse requirements will employ appropriate LUCs to protect human health and the environment. A map depicting real property included within the scope of this agreement is attached as Enclosure 1 to this LUCAP. Sites may generally be categorized as follows:

a. Those that have been fully investigated and for which site-specific remedy(ies) have been previously implemented;

b. Those that have been fully investigated and for which site-specific remedy(ies) have been selected but have not yet been implemented or completed;

c. Those that have been fully investigated but for which final remedy selection decisions have not yet been made; and

d. Those that are in need of initial or further site investigative activities before the appropriate final remedy(ies) can be selected and implemented.

IV. DEFINITIONS

a. As used herein, the term "land use control" or "LUC" includes any restriction or control arising from the need to protect human health and the environment that limits the use of and/or exposure to, environmentally contaminated media (e.g., soils, surface water, groundwater, air) or areas containing OE at any site at Fort McClellan. The term includes controls on access [e.g., both engineered and non-engineered mechanisms (such as fences and security guards, respectively)], and non-engineered mechanisms for ensuring compliance with necessary land use limitations (e.g., public advisories, legal restrictions on land or water usage). Additionally, the term encompasses both affirmative measures to achieve the desired control (e.g., night lighting of an area) and prohibitive directives (e.g., no drilling of drinking water wells). "Institutional controls" (ICs) and "engineering controls" (ECs) are subsets of LUCs and are further discussed in subparagraph d) below.

b. As used herein, the term "Land Use Control Assurance Plan" or "LUCAP" means the plan through which the effectiveness of LUCs at FMC are assured. The LUCAP establishes a process for maintaining, inspecting, and/or enforcing LUCs at FMC.

c. As used herein, the term "Land Use Control Implementation Plan" or "LUCIP" means the plan through which LUCs for a specific FMC site are implemented. The LUCIP will identify and describe each LUC placed on the site and include specific methods for ensuring that the effectiveness of each LUC is maintained. The plan for implementing ECs and ICs will be documented in the decision document, as appropriate, and will also be included in a LUCIP for the site. In some instances, Interim LUCIPs may be established before the remedy selection process is complete.

d. As used herein and as discussed in the Preamble to the NCP, "engineering controls" (ECs) are controls such as containment that prevent exposure to hazardous substances and pollutants or contaminants. As used herein, "institutional controls" (ICs), are controls that limit human activities at or near facilities. Both ECs and ICs may be used to protect human health and environment thus assuring continued effectiveness of a response action and may be identified as a remedy, or part of a remedy, selected

at the conclusion of a CERCLA investigation and documented in a Record of Decision (ROD) or other decision document.

e. As used herein, the term "decision document" includes, but is not limited to: CERCLA Records of Decision (RODs), Action Memoranda (AMs), RCRA Statements of Basis/Notices of Decision. These decision documents will be used as the basis for final LUCs.

f. As used herein, a "source document" is a document which describes the environmental condition of the property, and which may be used to make interim LUC decisions and/or reduce risk. Source documents include, but are not limited to: Environmental Baseline Survey (EBS), Archive Search Report (ASR), Preliminary Assessment (PA), Site Investigation Report (SI), Remedial Investigation (RI), Engineering Evaluation/Cost Assessment (EE/CA), Finding of Suitability to Transfer (FOST), Finding of Suitability to Lease (FOSL), Finding of Suitability for Early Transfer (FOSET), and Environmental Conditions of Property (ECOP).

V. DEVELOPMENT OF LUCIPs

a. Basic Guidance:

1. A LUCIP, either Interim or Final, will be prepared for those sites where LUCs are necessary to be protective of human health and the environment. LUCIPs will be prepared consistent with source or decision documents for any site at which LUCs will be employed. Final LUCIPs must effectively implement LUCs specified in a Final ROD or other decision document for the selected remedy.

2. LUCIPs will be prepared by the Army, in consultation with the JPA and other third parties, as appropriate. The Army will work with the future transferee in preparing a LUCIP for a particular site.

3. Regulatory agencies who are Parties to this LUCAP will be afforded an opportunity to review and comment on each proposed LUCIP. Regulatory agencies may or may not concur in the LUCIP developed to implement LUCs at specific sites.

b. The following principles will be used to guide the development of LUCIPs:

1. The NCP states the guiding principle that, consistent with CERCLA, active treatment remains the preferred method of attaining protectiveness, to the degree possible. In addition, the NCP establishes that the lead agency remains responsible for its remedies.

2. Understanding that reuse decisions are often time sensitive, all Parties must be sensitive to the need for expeditious processing. All Parties also recognize that for the initial group of pre-transfer interim LUCIPs the processing goals established in Section VI, Implementation, will be more difficult to achieve; but all Parties are committed to meeting these goals for LUCIPs associated with actual property transfers.

3. Development of the LUCIP will facilitate the application of Federal and/or State risk-based cleanup criteria to site cleanups, and/or prevent unacceptable exposure in the case of long-term remediation, where appropriate, through consideration of reasonably anticipated future land use at those sites where LUCs will be necessary.

4. Controls will be no more burdensome than necessary.

5. The JPA and local community will be involved in an open and public process, to include sharing LUCIPs with the Restoration Advisory Board (RAB).

6. The LUCIP will seek to maximize the use of authorities of State and local governments for enforcement. The Army is willing to grant specific real property interests to the State or other local governmental entities to facilitate their ability to enforce certain LUCs.

7. Preparers of the LUCIP will employ layering mechanisms for maintenance and inspection realizing that redundancy should strengthen the viability, visibility, and overall effectiveness of LUCs.

8. For federal-to-federal transfers, the gaining federal agency will be responsible for LUCs unless otherwise negotiated by the Army with the gaining federal agency.

This applies only to property that will be used by the federal agency and is not applicable to property that is assigned to a federal agency for further transfer outside the federal government, e.g., public benefit transfers.

c. The following elements will be addressed in LUCIPs:

1. The LUCIP will clearly define the boundaries for the LUC(s) at the site.

2. The LUCIP will identify each LUC objective for the site and will contain a cross-reference to applicable decision or source documents.

3. The LUCIP will specify those actions or particular LUCs required to achieve each identified objective. Each LUCIP shall specify the procedures to implement and maintain the specific LUCs.

4. The Army will retain authority regarding right of entry to ensure that LUCs are being maintained as required under CERCLA and applicable law.

5. The frequency of monitoring and the reporting requirements will be specified in the LUCIP. Where practical, the LUCIP will use future owner/occupant self-policing/reporting. Reports should include:

A. An evaluation of whether the LUC remains effective.

B. In the event of a failure of a LUC, an evaluation of whether the failure will pose an unacceptable risk to human health and the environment or otherwise negatively impact the effectiveness of the remedy.

C. An evaluation of the need for any additional remedial action necessary due to a compromise or violation of the LUC(s).

D. A proposal for any necessary changes to the selected remedial action and identification of procedural requirements (e.g., ROD amendment) for the proposed changes.

E. Any proposed or completed enforcement action.

6. The LUCIP will specify who is responsible for monitoring, maintaining, and enforcing LUCs with the understanding that the Army remains ultimately responsible for its remedies.

7. The LUCIP will identify the enforcement options available in the event that a LUC is violated.

8. The LUCIP will address a means for reducing or removing LUCs.

9. This list of elements is not meant to be exhaustive, and additional information may be included in a LUCIP as deemed necessary on a site-by-site basis.

VI. IMPLEMENTATION AND APPENDICES

a. Each of the Parties will maintain a copy of this Agreement, and the Army is responsible for providing updates as specified herein.

1. A copy of the Agreement and associated comments will be included in the Administrative Record maintained in accordance with the Installation's Community Relations Plan.

2. When a LUCIP establishes a requirement for a non-Party entity to be involved in the layering process employed to maintain the effectiveness of the LUC, the first time that entity receives a LUCIP they will also receive a copy of the LUCAP without appendices A-C.

3. To the extent there is a need for the recipient to be made aware of relevant points of contact, the Army will provide a copy of Appendix D and will update it as appropriate. The Army will not be required to update other sections of the LUCAP for such entities.

b. This Agreement contains four appendices.

1. Appendix A, Land Use Control Site Listing, is a list of all sites covered under the terms of this Agreement. The list will include, for each site, the site name, site

description and site location as specified in the decision or source document, and the name and date of such document.

2. Appendix B, Interim Land Use Control Implementation Plans, is a set of copies of all individual pre-transfer or pre-remedy LUCIPs covered under this Agreement. These LUCIPs are living documents subject to refinement as new data becomes available.

3. Appendix C, Final Land Use Control Implementation Plans, is a set of copies of all individual final remedy LUCIPs covered under this Agreement.

4. Appendix D, Agency Points of Contact, is a list of the points of contact (name, address, telephone, FAX, e-mail) for the Army, U.S. EPA, and ADEM.

c. Land Use Control Site Listing - Appendix A

1. Within 30 days after execution of this Agreement, Fort McClellan will deliver a draft Appendix A to U.S. EPA, ADEM, and JPA for review and comment. The draft will be comprised of the information described in paragraph VI.b.1.

2. The regulators and the JPA will have 30 days to provide comments to the draft Appendix A, and the Army should respond to comments within 14 days before finalizing an initial Appendix A. The regulator comments and the Army's response to those comments will be included in the Administrative Record.

3. Within 14 days after issuance of a ROD or other decision or source document containing LUCs the Army will update Appendix A accordingly to reflect any additions or deletions of sites as may hereafter be determined by the site investigation and remedy selection process. The Army will distribute copies of all updates to all Parties within 14 days after each update.

d. LUCIPs - Appendices B and C

1. Within 90 days after execution of this Agreement, Fort McClellan will begin to deliver Draft Interim LUCIPs on sites listed in the initial Appendix A to U.S. EPA and ADEM for review and comment and/or concurrence consistent with

applicable law and regulations. The Parties expect that all of the initial Appendix A Interim LUCIPs will be completed within 270 days after execution of this agreement. Prior to submission to regulatory agencies JPA will have an opportunity to review, comment, and concur (or not concur) with draft LUCIPs affecting property to be transferred to the JPA. The JPA will be afforded 14 days for such reviews, and the Army will submit a response to any comments received and that response should be submitted within 14 days, but will be submitted not later than 30 days. Within 60 days after new sites are added to Appendix A as a result of issuance of a ROD or other source or decision document for that site, the Army will prepare and deliver to those Agencies either a Draft Interim LUCIP or a Draft Final LUCIP (depending on status of remedy selection) for the site(s).

2. Regulatory agencies will be afforded a 30-day review period for LUCIPs, and the Army will respond to comments, and the Army's response should be submitted within 14 days, but will be submitted not later than 30 days. Prior to submission to regulatory agencies, JPA will be afforded an opportunity to review, comment, and concur (or not concur) on LUCIPs affecting property to be transferred to the JPA. The JPA will be afforded 14 days for such reviews, and the Army will submit a response to any comments received and that response should be submitted within 14 days, but will be submitted not later than 30 days.

3. LUCIPs will be added to or deleted from either Appendix B or C as appropriate. LUCIPS, whether Interim or Final, will be updated by the Army to reflect any additions to or deletions of or modifications to LUCs. As a result of the remedy selection process an Interim LUCIP may be updated to a Final LUCIP in which case it would be deleted from Appendix B and moved into Appendix C, or if the remedy selection process concludes that no LUCs are necessary, the site may be annotated in Appendix A as a site where LUCs have been removed. The Army will distribute copies of all updates to all Parties within 14 days after each update.

e. Agency Points of Contact -Appendix D

1. EPA, ADEM, JPA and Army points of contact will be attached to this Agreement within 30 days after execution of this Agreement.

2. Contacts will be verified on an annual basis and updated by the Army when the annual LUC status report is distributed as specified in subparagraph VII.c. Updates will be distributed to the Parties and to any non-Parties requiring an updated copy.

VII. SITE INSPECTION / REVIEW / MONITORING

a. LUCIPs will specify the requirements for monitoring and maintenance of LUCs to include frequency of inspections. The Installation's BRAC Environmental Coordinator (BEC), unless otherwise specified in the LUCIP, will be responsible for ensuring that all required inspections and reviews are performed. The Army will notify U.S. EPA and ADEM in a timely manner after deficiencies are noted. The corrective measures taken or planned will be reported consistent with requirements specified in the LUCIP.

b. The Parties agree that in furtherance of the ICs and/or ECs selected in RODs or other CERCLA decision documents, a minimum five year review must be conducted to determine whether those ICs and ECs remain properly implemented and effective for as long as the ICs and ECs are being relied upon to protect human health and the environment or manage risk.

c. In addition, the Army agrees to compile an annual report reflecting the status of all LUCs. In March of each year the Army will provide copies of its annual report to U.S. EPA, ADEM, and the JPA. Initially the annual report will be signed by the Army official responsible for LUCAP oversight, either the Installation Commander, Site Manager, or equivalent next higher Command Level Official, as designated in Appendix D. The Army may delegate the responsibility to prepare and submit this report to a third party, recognizing that the Army remains ultimately responsible for providing a status report that accurately demonstrates whether the remedies remain effective.

VIII. FUTURE COMMUNICATIONS

Within 30 days of execution of this Agreement, each Party shall notify the other Parties of the name(s), address(es), telephone number(s), electronic mail address(es), and facsimile number(s) of its representative(s) who shall receive all correspondence and communications on behalf of that Party pertaining to all matters falling under the terms of this Agreement. A listing of such representatives shall be attached hereto as Appendix D and updated by the Parties as appropriate.

IX. ANTI-DEFICIENCY ACT AND FUNDING

a. Nothing in this Agreement shall be construed as obligating the Army or U.S. EPA, their officers, employees, or agents to expend any funds in excess of appropriations authorized for such purposes in violation of the federal Anti-Deficiency Act (31 U.S.C. Section 1341).

b. The Army agrees to use its best efforts to obtain all necessary funding through the appropriate authorities or source(s) to assure the continued maintenance of all LUCs covered under this Agreement and, where necessary, the timely re-implementation of any LUCs and/or completion of site restoration activities necessitated by any violation of or unauthorized change to an implemented LUC. It is not intended by the Parties that this Section be construed in any way to limit the rights reserved under Section XIV of this Agreement.

X. PROPERTY TRANSFERS AND OTHER OUTGRANTS

a. Prior to Army transfer of property outside of the Federal government, the Army will complete a finding of suitability to transfer (FOST) to demonstrate that the requirements of CERCLA 120(h) and other environmental requirements have been met. LUCs implemented to protect human health and the environment, as established in decision documents, will be discussed in the FOST. To further enhance awareness of future property owners, the LUCIPs in place at that time will be attached to the FOST. If Final

LUCIPs are not already in place, the proposed LUCIP will be concurrently processed with the FOST.

b. Prior to Army leasing property outside of the Federal government, the Army will complete a finding of suitability to lease (FOSL) to demonstrate that the requirements of CERCLA 120(h) and other environmental requirements have been met. LUCs implemented to protect human health and the environment, as established in decision documents or Interim LUCIPs, will be discussed in the FOSL. To further enhance awareness of future property owners, the LUCIPs in place at that time will be attached to the FOSL and if modified during the term of the lease an updated LUCIP will be provided to the Lessee.

c. Prior to Army early transfer of property outside of the Federal government, the Army will complete a finding of suitability for early transfer (FOSET) to demonstrate that the proposed use of the property is protective of human health and the environment as defined in CERCLA 120(h)(3)(C). The FOSET will address other environmental requirements as appropriate. LUCs implemented to protect human health and the environment, as established in decision documents or Interim LUCIPs, will be discussed in the FOSET. To further enhance awareness of future property owners, the LUCIPs in place at that time will be attached to the FOSET. If the LUCIP is modified before the deferred CERCLA 120(h) covenant is granted, an updated LUCIP will be provided to the property owner.

d. Prior to Army transfer of property accountability within the Federal government, the Army will complete an environmental condition of property report (ECOP). LUCs implemented by the Army to protect human health and the environment, as established in decision documents or Interim LUCIPs, will be discussed in the ECOP. A Letter of Transfer between the agencies will address future LUC responsibilities. To further enhance awareness of the gaining Federal agency, the LUCIPs in place at the time of transfer of property accountability will be provided to the gaining Federal agency.

XI. CHANGE IN APPLICABLE STANDARDS

Nothing herein should be construed to preclude the Army from proposing at any time or the Parties from agreeing to the deletion of any site from coverage under this Agreement based on either: (1) a change to applicable Federal or State risk-based cleanup standards, or (2) a change in contaminant concentration levels allowing for unrestricted use, e.g., as a result of the effects of man-induced or naturally-occurring bioremediation/attenuation.

XII. SITE ACCESS

a. So long as the Army owns the land, the Army herein agrees to provide U.S. EPA and ADEM representatives, their contractors or consultants access to all sites covered by this LUCAP at all reasonable times consistent with military mission, national security, leases granted by the Army, and health/safety requirements upon presentation of proper credentials. The Installation's BRAC Environmental Coordinator or his/her designee will coordinate access and escort to restricted or controlled-access areas, arrange for passes, and coordinate any other access requests that arise. U.S. EPA and ADEM representatives shall have the authority to enter and move freely around any site at all reasonable times for purposes including, but not limited to, reviewing the efforts performed by Fort McClellan consistent with the terms of this Agreement, conducting such tests as these agencies may deem necessary, and verifying any information/ data submitted by Fort McClellan personnel. Nothing in this Agreement is intended or shall be construed to limit in any way the right of entry or inspection that either U.S. EPA or ADEM may otherwise have.

b. Following transfer, site access will be coordinated with the new owner/occupant/operator to the extent practicable. To the extent that U.S. EPA and ADEM have independent access authority, nothing in this agreement limits that authority.

XIII. DISPUTES

All Parties agree to use Partnering principles in a good faith effort to resolve any and all disputes that may hereafter arise with regards to the Installation's substantial good faith compliance with the terms of this Agreement or other matters relating to the sites addressed hereunder.

XIV. RESERVATION OF RIGHTS

It is agreed and understood that U.S. EPA and ADEM reserve all rights and authorities each agency may currently have or hereafter acquire to require that the Army comply with federal and state laws and regulations applicable to the investigation, cleanup, and long-term maintenance of sites covered by this Agreement. It is also understood that the Army reserves those rights and authorities granted to the Department of Defense (DoD) by federal law, regulation, or executive order, including any right to put all property under its authority to those uses deemed necessary in its discretion for mission accomplishment or otherwise deemed necessary by appropriate military authority to meet the needs of the DoD.

XV. DISCLAIMER

This LUCAP does not create legal rights or obligations in any person or entity not a Party hereto.

XVI. AMENDMENT

Any amendments to this Agreement shall be in writing and will be executed by the undersigned signatories or their duly authorized designees or successors and shall be attached to this original Agreement.

XVII. TERMINATION

This Agreement shall terminate at such time as the undersigned representatives of the Parties or their successors mutually concur that the objectives of the Parties have been fulfilled. Alternatively, any Party may withdraw from this Agreement upon sixty (60) days written notice to the other Parties but only after reasonable efforts have first been made by all Parties to resolve the dispute(s) leading to the taking of such action. If any Party decides to withdraw, the Parties shall nonetheless affirmatively seek to resolve any issues that may exist between them.

XVIII. REPRESENTATIVE AUTHORITY

Each undersigned representative of the Parties to this Agreement certifies that she or he is fully authorized to bind the Party he or she represents.

XIX. EXECUTION

This Agreement shall become effective on the date the last Party signs.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV

By: JOHN H. HANKINSON JR.
Date: 12/08/00
Title: Regional Administrator

FOR THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

By: JAMES W. WARR
Date:
Title: Director

FOR THE DEPARTMENT OF THE ARMY

By: RAYMOND J. FATZ
Date:
Title: Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health)

FOR THE ANNISTON-CALHOUN COUNTY FORT MCCLELLAN DEVELOPMENT JOINT POWERS AUTHORITY

By: ROY HANNER
Date:
Title: President, Board of Directors

XIX. EXECUTION

This Agreement shall become effective on the date the last Party signs.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV

By: JOHN H. HANKINSON JR.
Date:
Title: Regional Administrator

FOR THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

By: JAMES W. WARR
Date: 12 Dec 2000
Title: Director

FOR THE DEPARTMENT OF THE ARMY

By: RAYMOND J. FATZ
Date:
Title: Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health)

FOR THE ANNISTON-CALHOUN COUNTY FORT MCCLELLAN DEVELOPMENT JOINT POWERS AUTHORITY

By: ROY HANNER
Date:
Title: President, Board of Directors

XIX. EXECUTION

This Agreement shall become effective on the date the last Party signs.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV

By: JOHN H. HANKINSON JR.
Date:
Title: Regional Administrator

FOR THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

By: JAMES W. WARR
Date:
Title: Director

FOR THE DEPARTMENT OF THE ARMY

Raymond J. Fatz

By: RAYMOND J. FATZ
Date: Feb 2, 2001
Title: Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health)

FOR THE ANNISTON-CALHOUN COUNTY FORT MCCLELLAN DEVELOPMENT JOINT POWERS AUTHORITY

XIX. EXECUTION

This Agreement shall become effective on the date the last Party signs.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV

By: JOHN H. HANKINSON JR.
Date:
Title: Regional Administrator

FOR THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

By: JAMES W. WARR
Date:
Title: Director

FOR THE DEPARTMENT OF THE ARMY

By: RAYMOND J. FATZ
Date:
Title: Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health)

FOR THE ANNISTON-CALHOUN COUNTY FORT MCCLELLAN DEVELOPMENT JOINT POWERS AUTHORITY

By: Roy Hanner
ROY HANNER
Date: 01-9-01
Title: President, Board of Directors

LAND USE CONTROL IMPLEMENTATION PLAN WILL BE PROVIDED UNDER SEPARATE COVER

APPENDIX F

COST ANALYSIS

Sector: M5-1L (North)-PR
Acres: 110
Grids: 575

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$10,800.00	
Explosive Safety Submission, draft and final	$0.00	
		$22,800.00

ESS not priced in cost estimate
18 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$97,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$199,000.00	
		$296,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$166,899.15	
Brush Removal	$297,000.00	
Surface Clearance	$407,000.00	
Removal Report	$39,000.00	
		$909,899.15

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$166,899.15	
Brush Removal	$297,000.00	
Clearance	$620,000.00	
Removal Report	$50,000.00	
		$1,133,899.15

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 20 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$166,899.15	
Brush Removal	$314,000.00	
Surface Sweep	$407,000.00	
Geophysical Mapping	$1,143,000.00	
Geophysical Reaquire	$272,000.00	
Intrusive Activities	$511,000.00	
Removal Report	$83,000.00	
		$2,896,899.15

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M5-1L (South)-PR
Acres: 113
Grids: 591

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$10,800.00	
Explosive Safety Submission, draft and final	$0.00	
		$22,800.00

ESS not priced in cost estimate
18 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$99,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$205,000.00	
		$304,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$171,450.95	
Brush Removal	$305,000.00	
Surface Clearance	$419,000.00	
Removal Report	$40,000.00	
		$935,450.95

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$1,174,780.45	
Work Plan & ESS, draft and final		
Boundary Survey	$29,232.03	
Grid Layout	$79,033.52	
Brush Removal	$291,677.86	
Clearance	$636,576.26	
Removal Report	$88,874.50	
		$2,300,174.62

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 7.5 Days with 1 UXO II escort
Grid Layout=11 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 7 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$29,232.03	
Survey and Marking	$79,033.52	
Brush Removal	$323,000.00	
Surface Sweep	$419,000.00	
Geophysical Mapping	$1,175,000.00	
Geophysical Reaquire	$279,000.00	
Intrusive Activities	$525,000.00	
Removal Report	$85,000.00	
		$2,914,265.55

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 7.5 Days with 1 UXO II escort
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M5-1L-I
Acres: 19
Grids: 100

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$4,200.00	
Explosive Safety Submission, draft and final	$0.00	
		$16,200.00

ESS not priced in cost estimate
7 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$100,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$437,000.00	
		$537,000.00

ESS and WP not priced in cost estimate
Management= 60 hours per acre combined management
UXO support=120 UXOII manhours and 120 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$28,828.04	
Brush Removal	$51,000.00	
Surface Clearance	$72,000.00	
Removal Report	$7,000.00	
		$158,828.04

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$28,828.04	
Brush Removal	$51,000.00	
Clearance	$113,000.00	
Removal Report	$9,000.00	
		$201,828.04

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 20 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$206,088.79	
Work Plan & ESS, draft and final		
Boundary Survey	$5,842.68	
Grid Layout	$14,352.57	
Brush Removal	$50,628.87	
Surface Sweep	$171,844.84	
Geophysical Mapping	$50,140.45	
Geophysical Reaquire	$33,426.96	
Intrusive Activities	$117,161.75	
Removal Report	$48,279.00	
		$697,765.91

ESS and WP not priced in cost estimate
Management= 70 hrs per day
Boundary Survey=1 day with UXOII escort
Grid Layout= 2 days with UXOII escort

Brush Removal=2 acres per day with UXOII escort
Surface Clearance=6 days with 2 teams of 1 UXOIII and 4 UXOII
Geophysical Survey= 4 days with 1 UXOIII and 1 UXOII
Geophysical Reaquire=6 days with 1 UXOIII and 1 UXOII
Clearance= 8 days with 2 teams of 1 UXOIII and 4 UXOII's

Sector: M6-1L Remainder-I/AR
Acres: 50
Grids: 262

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$7,200.00	
Explosive Safety Submission, draft and final	$0.00	
		$19,200.00

ESS not priced in cost estimate
12 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$263,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$1,148,000.00	
		$1,411,000.00

ESS and WP not priced in cost estimate
Management= 60 hours per acre combined management
UXO support=120 UXOII manhours and 120 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$75,863.25	
Brush Removal	$135,000.00	
Surface Clearance	$180,000.00	
Removal Report	$18,000.00	
		$408,863.25

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$75,863.25	
Brush Removal	$135,000.00	
Clearance	$282,000.00	
Removal Report	$23,000.00	
		$515,863.25

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 20 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$75,863.25	
Brush Removal	$143,000.00	
Surface Sweep	$180,000.00	
Geophysical Mapping	$521,000.00	
Geophysical Reaquire	$123,000.00	
Intrusive Activities	$232,000.00	
Removal Report	$38,000.00	
		$1,312,863.25

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1L Suspect Area-I/AR
Acres: 14
Grids: 74

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$3,600.00	
Explosive Safety Submission, draft and final	$0.00	
		$15,600.00

ESS not priced in cost estimate
6 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$74,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$322,000.00	
		$396,000.00

ESS and WP not priced in cost estimate
Management= 60 hours per acre combined management
UXO support=120 UXOII manhours and 120 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$21,241.71	
Brush Removal	$38,000.00	
Surface Clearance	$132,000.00	
Removal Report	$5,000.00	
		$196,241.71

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=6 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 92 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$21,241.71	
Brush Removal	$38,000.00	
Clearance	$169,000.00	
Removal Report	$7,000.00	
		$235,241.71

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=6 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 92 anomalies per acre)

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=6 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 30 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$71,064.51	
Work Plan & ESS, draft and final		
Boundary Survey	$3,328.90	
Grid Layout	$9,399.95	
Brush Removal	$30,199.33	
Clearance	$127,629.58	
Removal Report	$35,574.00	
		$277,196.27

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1.5 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 6 grids per day with 2 teams of 1 UXOIII and 4 UXOII's
This cost estimate for clearance to depth is based on the assumption that no items will be found below one foot in depth. In the event of items being below one foot additional cost will be associated.

Sector: M6-1M Burn Pit-PR
Acres: 3
Grids: 16

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$1,800.00	
Explosive Safety Submission, draft and final	$0.00	
		$13,800.00

ESS not priced in cost estimate
3 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$3,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$6,000.00	
		$9,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$4,551.80	
Brush Removal	$8,000.00	
Surface Clearance	$12,000.00	
Removal Report	$2,000.00	
		$26,551.80

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=9 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 55 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$31,842.15	
Work Plan & ESS, draft and final		
Boundary Survey	$1,265.85	
Grid Layout	$2,518.20	
Brush Removal	$7,488.06	
Clearance	$11,797.23	
Removal Report	$3,448.50	
		$58,360.01

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 6 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$1,265.85	
Survey and Marking	$2,518.20	
Brush Removal	$9,000.00	
Surface Sweep	$12,000.00	
Geophysical Mapping	$32,000.00	
Geophysical Reaquire	$11,000.00	
Intrusive Activities	$21,000.00	
Removal Report	$3,000.00	
		$91,784.06

ESS and WP not priced in cost estimate
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=9 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 55 anomalies per acre)
Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Remainder-I/AR
Acres: 102
Grids: 534

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$10,200.00	
Explosive Safety Submission, draft and final	$0.00	
		$22,200.00

ESS not priced in cost estimate
17 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$90,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$293,000.00	
		$383,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$154,761.03	
Brush Removal	$275,000.00	
Surface Clearance	$371,000.00	
Removal Report	$36,000.00	
		$836,761.03

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$154,761.03	
Brush Removal	$275,000.00	
Clearance	$578,000.00	
Removal Report	$46,000.00	
		$1,053,761.03

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 20 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$154,761.03	
Brush Removal	$291,000.00	
Surface Sweep	$371,000.00	
Geophysical Mapping	$1,062,000.00	
Geophysical Reaquire	$252,000.00	
Intrusive Activities	$474,000.00	
Removal Report	$77,000.00	
		$2,681,761.03

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Remainder-PR
Acres: 291
Grids: 1522

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$16,800.00	
Explosive Safety Submission, draft and final	$0.00	
		$28,800.00

ESS not priced in cost estimate
28 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$255,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$525,000.00	
		$780,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$441,524.12	
Brush Removal	$785,000.00	
Surface Clearance	$1,078,000.00	
Removal Report	$102,000.00	
		$2,406,524.12

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$441,524.12	
Brush Removal	$785,000.00	
Clearance	$1,649,000.00	
Removal Report	$131,000.00	
		$3,006,524.12

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 20 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$441,524.12	
Brush Removal	$831,000.00	
Surface Sweep	$1,078,000.00	
Geophysical Mapping	$3,027,000.00	
Geophysical Reaquire	$718,000.00	
Intrusive Activities	$1,352,000.00	
Removal Report	$219,000.00	
		$7,666,524.12

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Suspect Area (North)-PR
Acres: 6.3
Grids: 33

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$2,400.00	
Explosive Safety Submission, draft and final	$0.00	
		$14,400.00

ESS not priced in cost estimate
4 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$6,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$19,000.00	
		$25,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$9,558.77	
Brush Removal	$17,000.00	
Surface Clearance	$36,000.00	
Removal Report	$3,000.00	
		$65,558.77

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=6 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 73 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$54,049.35	
Work Plan & ESS, draft and final		
Boundary Survey	$3,717.92	
Grid Layout	$6,347.85	
Brush Removal	$15,384.56	
Clearance	$31,568.46	
Removal Report	$7,241.85	
		$118,310.00

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 8 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$3,717.92	
Survey and Marking	$6,347.85	
Brush Removal	$14,000.00	
Surface Sweep	$36,000.00	
Geophysical Mapping	$44,000.00	
Geophysical Reaquire	$17,000.00	
Intrusive Activities	$39,000.00	
Removal Report	$5,000.00	
		$165,065.77

ESS and WP not priced in cost estimate
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=4 acres per day with 2 brush crews ($1250 per acre) and 2 UXOII escorts
Surface Clearance=6 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 73 anomalies per acre)

Geophysical Mapping= 8 grids a day with 2 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=120 anomalies a day with 2 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=150 anomalies per day with 3 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Suspect Area (South)-PR
Acres: 4.6
Grids: 25

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$2,400.00	
Explosive Safety Submission, draft and final	$0.00	
		$14,400.00

ESS not priced in cost estimate
4 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$5,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$11,000.00	
		$16,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$6,979.42	
Brush Removal	$12,000.00	
Surface Clearance	$24,000.00	
Removal Report	$2,000.00	
		$44,979.42

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 55 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$37,116.69	
Work Plan & ESS, draft and final		
Boundary Survey	$4,681.68	
Grid Layout	$6,601.95	
Brush Removal	$13,018.86	
Clearance	$15,697.67	
Removal Report	$5,287.70	
		$82,404.56

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 6 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$4,681.68	
Survey and Marking	$6,601.95	
Brush Removal	$13,000.00	
Surface Sweep	$24,000.00	
Geophysical Mapping	$50,000.00	
Geophysical Reaquire	$9,000.00	
Intrusive Activities	$16,000.00	
Removal Report	$4,000.00	
		$127,283.64

ESS and WP not priced in cost estimate
Boundary Survey= 1 Days with 1 UXO II escort
Grid Layout=1 Days with 1 UXO II escort
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=13 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 55 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Transect Area 1 (South)-PR
Acres: 66
Grids: 345

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$8,400.00	
Explosive Safety Submission, draft and final	$0.00	
		$20,400.00

ESS not priced in cost estimate
14 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$58,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$119,000.00	
		$177,000.00

ESS and WP not priced in cost estimate
Management= 30 hours per acre combined management
UXO support=60 UXOII manhours and 60 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$69,022.97	
Brush Removal	$139,000.00	
Surface Clearance	$381,000.00	
Removal Report	$24,000.00	
		$613,022.97

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=4 acres per day with 2 survey crews and 1 UXOII escort per crew
Brush Removal=4 acres per day with 2 brush teams ($1100 per acre) and 2 UXOII escorts
Surface Clearance=11 grids per day with 3 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 64 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$804,844.12	
Work Plan & ESS, draft and final		
Boundary Survey	$20,887.84	
Grid Layout	$50,724.08	
Brush Removal	$171,440.74	
Clearance	$321,130.90	
Removal Report	$43,923.00	
		$1,412,950.69

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey=3.3 Days with 1 UXO II escort
Grid Layout=6.5 Days with 1 UXO II escort
Brush Removal=2 Acres per day with UXO II escort
Clearance= 7 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$20,887.84	
Survey and Marking	$50,724.08	
Brush Removal	$149,000.00	
Surface Sweep	$381,000.00	
Geophysical Mapping	$457,000.00	
Geophysical Reaquire	$182,000.00	
Intrusive Activities	$446,000.00	
Removal Report	$50,000.00	
		$1,736,611.93

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey=3.3 Days with 1 UXO II escort
Brush Removal=4 acres per day with 2 brush crews ($1250 per acre) and 2 UXOII escorts
Surface Clearance=11 grids per day with 3 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 64 anomalies per acre)

Geophysical Mapping= 8 grids a day with 2 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=100 anomalies a day with 2 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=120 anomalies per day with 3 teams of 1 UXOIII and 6 UXOII's

Sector: M6-1M Transect Area 2 (North)-PR
Acres: 63
Grids: 330

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$7,800.00	
Explosive Safety Submission, draft and final	$0.00	
		$19,800.00

ESS not priced in cost estimate
13 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$56,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$114,000.00	
		$170,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$65,885.56	
Brush Removal	$133,000.00	
Surface Clearance	$546,000.00	
Removal Report	$23,000.00	
		$767,885.56

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=4 acres per day with 2 survey crews and 1 UXOII escort per crew
Brush Removal=4 acres per day with 2 brush teams ($1100 per acre) and 2 UXOII escorts
Surface Clearance=8 grids per day with 3 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 92 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$696,606.17	
Work Plan & ESS, draft and final		
Boundary Survey	$17,069.07	
Grid Layout	$45,588.15	
Brush Removal	$166,929.28	
Clearance	$183,603.34	
Removal Report	$41,926.50	
		$1,151,722.51

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 3 Days with 1 UXO II escort
Layout=6
Brush Removal=2 Acres per day with UXO II escort
Clearance= 6 grids per day with 2 teams of 1 UXOIII and 4 UXOII's

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$17,069.07	
Survey and Marking	$45,588.15	
Brush Removal	$142,000.00	
Surface Sweep	$546,000.00	
Geophysical Mapping	$437,000.00	
Geophysical Reaquire	$248,000.00	
Intrusive Activities	$608,000.00	
Removal Report	$48,000.00	
		$2,091,657.22

ESS and WP not priced in cost estimate
Management=70 Hrs per day
Boundary Survey= 3 Days with 1 UXO II escort
Brush Removal=4 acres per day with 2 brush crews ($1250 per acre) and 2 UXOII escorts
Surface Clearance=8 grids per day with 3 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 92 anomalies per acre)

Geophysical Mapping= 8 grids a day with 2 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=100 anomalies a day with 2 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=120 anomalies per day with 3 teams of 1 UXOIII and 6 UXOII's

Sector: Smoke Ranges R&S/T-38-PR
Acres: 88
Grids: 460

Alternative 1: No Further Action

Major Tasks	Estimated Cost	Total Cost
Explosive Safety Submission, draft and final	$20,000.00	
		$20,000.00

Alternative 2: Land Use Controls

Major Tasks	Estimated Cost	Total Cost
Planning	$12,000.00	
Sign Posting	$9,600.00	
Explosive Safety Submission, draft and final	$0.00	
		$21,600.00

ESS not priced in cost estimate
16 signs estimated at $600 per sign for fabrication, installation, and maintenance

Alternative 3: Construction Support

Major Tasks	Estimated Cost	Total Cost
Management and Planning	$77,000.00	
Explosive Safety Submission, draft and final	$0.00	
Workplan (Construction Support)	$0.00	
UXO Support for Construction	$206,000.00	
		$283,000.00

ESS and WP not priced in cost estimate
Management= 10 hours per acre combined management
UXO support=12 UXOII manhours and 12 UXO Safety Officer manhours per acre

Alternative 4: Surface Clearance

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$133,519.32	
Brush Removal	$237,000.00	
Surface Clearance	$323,000.00	
Removal Report	$31,000.00	
		$724,519.32

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Surface Clearance=19 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Alternative 5: Clearance to One Foot

Major Tasks	Estimated Cost	Total Cost
Survey and Marking	$133,519.32	
Brush Removal	$237,000.00	
Clearance	$338,000.00	
Removal Report	$40,000.00	
		$748,519.32

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Surface Clearance=19 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37

Brush Removal=2 acres per day with 1 brush teams ($1100 per acre) and 1 UXOII escorts
Clearance=19 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 12 anomalies per acre)

Alternative 6: Clearance to Depth

Major Tasks	Estimated Cost	Total Cost
Work Plan & ESS, draft and final	$0.00	
Survey and Marking	$133,519.32	
Brush Removal	$251,000.00	
Surface Sweep	$323,000.00	
Geophysical Mapping	$915,000.00	
Geophysical Reaquire	$130,000.00	
Intrusive Activities	$245,000.00	
Removal Report	$66,000.00	
		$2,063,519.32

ESS and WP not priced in cost estimate
Management is incorporated in tasks
Grid layout=2 acres per day with 1 survey crews and 1 UXOII escort per crew
Brush Removal=2 acres per day with 1 brush crews ($1250 per acre) and 1 UXOII escorts
Surface Clearance=19 grids per day with 2 teams of 1 UXOIII and 6 UXOII's (Based on an estimated count of 37 anomalies per acre)

Geophysical Mapping= 4 grids a day with 1 teams (1 UXOIII,2 UXOII's)
Geophysical Reaquire=50 anomalies a day with 1 teams (1 UXOIII,1 UXOII's)
Intrusive Activities=80 anomalies per day with 2 teams of 1 UXOIII and 6 UXOII's