

**McClellan Development Authority
Anniston, Alabama
EPA I.D. Number AL4 210 020 562**

FACT SHEET

The Alabama Department of Environmental Management (ADEM) has prepared a draft modified cleanup agreement for the McClellan Development Authority (MDA), EPA I.D. Number AL4 210 020 562, located in Anniston, Calhoun County, Alabama, in accordance with Alabama Hazardous Wastes Management and Minimization Act (AHWMMA) and the ADEM Administrative Code. This fact sheet has been prepared to briefly advise the public of the principal permitting, legal and policy issues related to the proposed cleanup agreement modification.

I. CLEANUP AGREEMENT MODIFICATION PROCESS

The purpose of the cleanup agreement review process is to allow the State and the public to evaluate the McClellan Development Authority's ability to comply with the hazardous waste management requirements of the AHWMMA, as amended. The McClellan Development Authority must comply with hazardous waste management conditions set forth in the cleanup agreement.

II. PROCEDURES FOR REACHING A FINAL DECISION

ADEM Admin. Code R. 335-14-8-.08(6) requires that the public be given a 45-day comment period for each draft cleanup agreement. The comment period will begin on March 18, 2026, which is the date of publication of the public notice in major local newspaper(s) of general circulation, and will end on May 4, 2026.

Any person interested in commenting on any part of the proposed cleanup agreement modification must do so within the 45-day comment period and should submit their comments in writing to the Alabama Department of Environmental Management, Permits and Services Division, 1400 Coliseum Boulevard (Zip 36110-2400), P.O. Box 301463 (Zip 36130-1463) Montgomery, Alabama, ATTENTION: Mr. Russell A. Kelly.

ADEM will consider all written comments received during the comment period while making a decision regarding the modification of the cleanup agreement for this facility. When the Department makes its final decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final decision.

III. FACILITY DESCRIPTION

The McClellan Development Authority has submitted a request for modification of its cleanup agreement under the requirements of AHWMMA for portions of the former Fort McClellan, a former military base. The former Fort McClellan is located in the foothills of the Appalachian Mountains of northeastern Alabama near the cities of Anniston and Weaver in Calhoun County. The former Fort McClellan consisted of three areas: Main Post (18,929 acres), which is bounded on the east by the Choccolocco Corridor; Pelham Range (22,245 acres), which is located approximately five miles due west of the former Main Post and adjoins the Anniston Army Depot to the south; and Choccolocco Corridor (4,488 acres), which previously connected the Main Post with the Talladega National Forest. Fort McClellan closed in May 1999 and the local reuse authority, McClellan Development Authority, was established. The McClellan Development

Authority is in charge of the economic development of portions of the Main Post area of the former Fort McClellan.

IV. SUMMARY OF PROPOSED MODIFICATIONS

This modified cleanup agreement will replace the current cleanup agreement, signed on September 30, 2003 and modified on November 7, 2005, February 2, 2009, June 24, 2011, February 13, 2014 and July 19, 2019. The modified cleanup agreement will continue to facilitate the development of corrective measures that may be warranted for defined parcels and will also facilitate the effective tracking of site close outs.

The modified cleanup agreement documents the changing status of defined parcels due to activities occurring after the issuance of the McClellan Development Authority’s cleanup agreement (September 30, 2003), as well as the inclusions of descriptions and current status of additional parcels added to the modified cleanup agreement. In addition, land use control and environmental covenant requirements, groundwater monitoring requirements and environmental remedies have been incorporated into this modified cleanup agreement.

V. CHANGES TO THE EXISTING CLEANUP AGREEMENT

The specific changes to the cleanup agreement are explained below.

<u>Part/Section</u>	<u>Reason</u>
Part I.G.	Updated addresses for ADEM, Army and MDA
Table I.1.	Updated the “Current Agreement Table” column for a majority of parcels to reflect current status
Table I.1	Modified Parcels 100Q and 101Q impact area to include the full name – Impact Area South of the Prisoner-of-War Training Facility (IASPOW), Former Rifle/Machine Gun Ranges
Table I.2.	Removed two erroneous entries for RFIs, documents 44 and 45
Table 1.2.	Updated “Date(s) of Document Revision(s)” for several documents to reflect current status and be consistent with ADEM files
Table I.2.	Replaced deleted documents 44 and 45; Added documents 57 - 60
Part II.K.	Updated the ZIP code for ADEM
Table III.1.	Removed Range 30, Parcels 88Q and 103Q because those sites have a CMIP and an NFA with land use controls designation
Table III.1.	Removed Range 29, Parcels 87Q-X, 110Q, 111Q and 239Q-X because those sites have a CMIP and NFA with land use controls designation
Table III.1.	Removed Former Rifle/Machine Gun Ranges (Impact Area), Parcels 100Q and 101Q because those sites have a CMIP and NFA with land use controls designation
Table III.2.	Moved Range 31, Parcel 215Q to join with Range 31, Parcel 89Q-X
Table III.2.	Added Range 29, Parcels 87Q-X, 110Q, 111Q and 239Q-X

Table III.2.	Added Iron Mountain Road Ranges, Parcels 69Q, 70Q, 71Q, 75Q, 221Q-X, and 222Q-X
Table III.2.	Added Impact Area South of the Prisoner-of-War Training Facility, Parcels 100Q and 101Q
Table III.2.	Added Range 30, Parcels 88Q and 103Q
Table III.2	Added all MRS parcels containing covenants for MEC
Table III.2	Added Baby Bains Gap Road Ranges, Parcels 79Q, 86Q, 223Q, 227Q, 83Q, 84Q-X, 118Q-X, 224Q and 226Q
Table III.2	Added MEC to the table key
Part IV.C.1.	Removed Iron Mountain Road Ranges
Part IV.C.2.	Revised text for IV.C.2.A and B - Landfill 4 and Industrial Landfill to include covenant language
Part IV.C.2.	Modified IV.C.2.F. GSA Warehouse FOST to include use restrictions from covenant FY-12-04.01
Part IV.C.2.	Revised IV.C.2.S. Chemical Laundry to include all restrictions from covenant FY-12-08.00
Part IV.C.2.	Added final remedies for sites in IV.C.2.EE, FF, GG, HH, II and JJ
Table IV.1.	Removed Anti-Tank Range and T-31, Parcels 230Q-X, 149Q, 184(7) and 185(7) because remedies have been selected
Table IV.1.	Removed Iron Mountain Road Ranges, Parcels 69Q, 70Q, 71Q, 75Q 221Q-X and 222Q-X because remedies have been selected
Table IV.1.	Modified T-38 HTRW Document reference to "TBD" because the RFI was erroneously entered into Table I.2 as document 45
Table IV.1.	Modified Former Machine Gun Ranges, Parcels 112Q, 213Q and 214Q HTRW Section Reference because Iron Mountain Road Ranges were removed from IV.C.1.B.
Table IV.2.	Modified the table description to include any sites with an approved CMIP
Table IV.2.	Added Industrial Landfill Final Document Reference to include closure certification
Table IV.2.	Added Baby Bain Gap Road Ranges, Parcels 74Q, 79Q and 223Q Remedy Approval Date
Table IV.2	Added Range 30, IASPOW, Anti-Tank Range and T-31, Range 29 and Iron Mountain Road Ranges
Table IV.3.	Modified Document Concurrence Dates for Northern Alpha and MRS-10
Table IV.3	Modified the Document Received Date for MRS-9 to be consistent with ADEM files
Table IV.3	Added Document Concurrence Dates for MRS-9, OA-03 and Golden Triangle/Y-Area
Table V.1.	Removed wells CWM-183-MW06, MW10, MW25, MW28 and MW31 from T6 sampling network
Table V.1	Removed wells OLF-G33 and G34 from LF3 sampling network
Table V.1.	Revised "Sampling Frequency" column for T-6 and Small Weapons Repair Shop to reflect current status

Table VI.1.a.	Revised Landfill 4, Industrial Landfill and General Services Administration Warehouse “LUC Summary”, “Covenant Land Record Filing Location”, “Covenant Effective Date”, and “Covenant Filing Date” columns to reflect current status
Table VI.1.a.	Added Range 29, Iron Mountain Road Ranges, Baby Bains Gap Road Ranges, Range 30 and IASPOW
Table VI.1.b.	Modified the title of the table to remove “from the Army to the LRA”
Table VI.1.b.	Added Quitclaim Deeds 14-16, JPA to MDA and MDA to City of Anniston
Table VI.1.b.	Modified the signatories for ADEM and MDA

ADEM – Alabama Department of Environmental Management

CMIP – Corrective Measures Implementation Plan

NFA – No Further Action

RFI – RCRA (Resource Conservation and Recovery Act) Facility Investigation

LUC – Land Use Control

MRS – Munitions Response Site

MDA – McClellan Development Authority

MEC – Munitions and Explosives of Concern

FOST – Finding of Suitability to Transfer

HTRW – Hazardous, Toxic, and Radiological Waste

TBD – To Be Determined

GSA – General Services Administration

LRA – Local Reuse Authority

JPA – Joint Powers Authority

VI. TECHNICAL CONTACT FOR THE PROPOSED CLEANUP AGREEMENT MODIFICATION

For questions involving the technical content of this proposed cleanup agreement modification, please contact the individual listed below:

Brandi C. Little

Remediation Engineering Section

Governmental Hazardous Waste Branch

Land Division

Alabama Department of Environmental Management

1400 Coliseum Boulevard (Zip 36110-2400)

P.O. Box 301463 (Zip 36130-1463)

Montgomery, Alabama

Phone: (334) 274-4226

Email: blittle@adem.alabama.gov

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:)
)
MCCLELLAN)
DEVELOPMENT AUTHORITY FACILITY)
) CLEANUP AGREEMENT NO. AL4 210 020 562
RE:)
FORMER FORT MCCLELLAN)
ANNISTON, ALABAMA)
)
)
EPA ID No.: AL4 210 020 562)
_____)

PART I

I.A. JURISDICTION

1. This Cleanup Agreement (“Agreement”) is issued pursuant to the authority vested in the Alabama Department of Environmental Management (ADEM or “the Department”) by the Alabama Hazardous Wastes Management and Minimization Act, Code of Alabama, 1975, as amended, §§ 22-30-1 to 22-30-24 (the AHWMMMA).
2. This Agreement was originally entered with the Anniston-Calhoun County Fort McClellan Development Joint Powers Authority (JPA) on September 30, 2003. On March 29, 2010, the JPA formally met, transferred their assets to the McClellan Development Authority (MDA), and dissolved the JPA. This Agreement was modified to replace the JPA with the MDA as signatory. This modified Agreement is entered with the MDA and addresses portions of the Army Base Realignment and Closure (BRAC) facility known as Fort McClellan (“McClellan”), located in the City of Anniston, Calhoun County, Alabama. This Agreement addresses those portions of McClellan transferred to the MDA (including all predecessors) by the Army on or before the date of execution of this Agreement, as modified and more particularly described in Table I.1. (the “Facility”).
3. A portion of the Facility has been transferred to the MDA pursuant to Findings of Suitability to Transfer (FOST) (collectively the “FOST Parcels”). The FOST Parcels contain approximately 5021 acres and are more particularly described in Table I.1. All known remedial action required under the Comprehensive Environmental Response, Compensation and Liability Act (Section 120(h)(3)) (CERCLA) and applicable standards of the State of Alabama, as evidenced by written correspondence to this effect from ADEM, was completed at the FOST Parcels by the Army prior to the transfer of the property to the MDA. The MDA has assumed the responsibility for the completion of any remaining corrective action, closure, and post-closure activities at the FOST Parcels

as required hereunder. The Parties agree that the FOST Parcels may be released from this Agreement pursuant to the provisions of Agreement Condition IV.E. of this Agreement.

4. The remainder of the Facility has been transferred to the MDA by the Army pursuant to the covenant deferral provisions of CERCLA through a Finding of Suitability for Early Transfer (FOSET) (collectively the “FOSET Parcels” or the “Early Transfer Parcels”). The FOSET Parcels contain approximately 4692 acres and are more particularly described in Table I.1. The MDA has assumed the responsibility for the completion of corrective action, closure and post-closure activities as required hereunder at the Facility. The Parties agree that the FOSET Parcels may be released from this Agreement pursuant to the provisions of Condition IV.E. of this Agreement.
5. The parties acknowledge that the Facility is subject to both the solid waste management unit (SWMU) corrective action requirements of the AHWMA and the regulations thereunder, and to the environmental remediation requirements of CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) Part 300, the Defense Environmental Restoration Program (DERP), 10 U.S.C. sections 2701 *et seq.*, and Executive Order 12580. The parties further agree that it is to the benefit of the citizens of the State of Alabama to address these requirements concurrently, thereby avoiding unnecessary duplication of effort while enhancing protection of human health and the environment.
6. The MDA will not contest ADEM’s jurisdiction to: compel compliance with this Agreement in any subsequent enforcement proceedings, either administrative or judicial; require the MDA’s compliance with the terms of this Agreement; or impose sanctions for violations of this Agreement. ADEM’s authority to enforce this agreement includes, but is not limited to, the authorities granted by Chapter 22-22A and Chapter 22-30 of the Code of Alabama, 1975, as amended.
7. For the purpose of this Agreement only, the MDA agrees that the Department may properly bring an action to compel compliance with the terms and conditions contained herein in the Circuit Court for Montgomery County. The MDA also agrees that in any action brought by the Department to compel compliance with the terms of this Agreement, the MDA shall be limited to the defenses of Force Majeure, compliance with this Agreement, and physical impossibility. The MDA shall not contest the terms of this Agreement.
8. The documents listed in Table I.2. are hereby incorporated by reference into this agreement.

I.B. PARTIES BOUND

1. This Agreement shall apply to and be binding upon ADEM, the MDA and its officers, directors, employees, agents, successors in interest and assigns of the property and to the owners thereof, heirs, trustees, receivers, and upon all persons or entities existing or operating under or for them. Each signatory to this Agreement must certify that he or she is fully authorized by the party he or she represents to enter into the terms and conditions

of this Agreement, to execute the Agreement on behalf of the party represented and to legally bind such party.

2. No change in the corporate, partnership, or Local Reuse Authority status relating to the MDA will in any way alter the MDA or any parties having or acquiring right, title or interest in all or a portion of the afore described property responsibility under this Agreement.
3. The MDA shall provide a copy of this Agreement to all contractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Agreement within 14 calendar days of the issuance of this Agreement or the retention of such person(s), whichever occurs later, and shall condition all such contracts in compliance with the terms of this Agreement.
4. The MDA shall give written notice of this Agreement to any successor in interest prior to transfer of ownership or operation of the Facility or a portion thereof and shall notify the Department in writing within 30 calendar days prior to such transfer. This Agreement shall be binding upon each successor in interest and assigns of the MDA. This Agreement shall be binding upon each successor in interest and assigns of the property and to the owners thereof, except provided by Condition IV.E. of this Agreement.
5. The MDA agrees to undertake all actions required by the terms and conditions of this Agreement, including any portions of this Agreement incorporated by reference. This Agreement shall not be appealable and the MDA does hereby waive any administrative hearing on terms and conditions of the same.

I.C. RESPONSIBILITIES OF THE MDA

1. The MDA is responsible for all activities required by this Agreement.
2. ADEM recognizes and acknowledges that the MDA and the Army have sought in good faith to divide responsibilities for the FOSET Parcels between themselves in the Environmental Services Cooperative Agreement (ESCA) originally executed between the MDA and the Army on September 29, 2003, and in any subsequent amendments thereto. The MDA recognizes, however, that disputes between the MDA and the Army over their respective remedial obligations under the ESCA may arise. The MDA does not intend that any such dispute between the MDA and the Army place ADEM in the position of having to initiate enforcement action against either or both parties in order to resolve the question which of the two parties is responsible for any particular remedial activity at the FOSET Parcels. The MDA, therefore, agrees to pursue to exhaustion or to resolution all disputes with the Army over remedial responsibilities at the FOSET Parcels through whatever mechanisms are available to the MDA both formal and informal, including but not limited to judicial enforcement of the ESCA. The MDA shall notify the Department of the initiation of any such dispute with the Army regarding responsibility for any remedial activity. ADEM agrees to defer for a reasonable time, as determined by the Department, the initiation of enforcement action against the MDA arising from any such dispute between the Army and the MDA pending the exhaustion or resolution of said

dispute. The MDA shall diligently prosecute any such dispute to resolution as expeditiously as possible. If ADEM reasonably determines that (i) the MDA is not diligently prosecuting a dispute to resolution as provided above, or (ii) at any time following the second anniversary of the initiation of a dispute by the MDA, resolution of the dispute has not occurred and is not likely to occur within ninety (90) days, ADEM may, after such determination, initiate an enforcement action. The MDA will notify ADEM of any such dispute and will notify ADEM if and when any such dispute is resolved, whether formally or informally. This deferral of enforcement action hereunder will not preclude the Department from requiring the MDA to undertake and complete Interim Measures (IM) with regard to the remedial activity in dispute.

I.D. FACTUAL BACKGROUND

1. The Facility is located in Calhoun County of northeastern Alabama, in the City of Anniston. The total acreage of the Facility is approximately 9,713 acres. The Facility comprises a portion of the former Fort McClellan. The first 18,929 acres of the former Fort McClellan were originally purchased in 1917 for use as an artillery range and training camp for World War I (WWI). Camp McClellan was renamed Fort McClellan in 1929 and was used as a training camp. The U.S. Army operated the Chemical School at Fort McClellan from 1951 until 1973. The school was reactivated in 1979 and was closed in 1999. The school trained personnel from all branches of the military in biological, chemical and radiological warfare. The Chemical School operated the Chemical Defense Training Facility from 1986 until 1999. The Department of Justice (DOJ) assumed operations in 1999.

In 1995, the Department of Defense placed Fort McClellan on the BRAC list. Much of McClellan has been transferred to various entities, including the Alabama National Guard, DOJ, U.S. Fish and Wildlife Service, and the MDA. The FOST Parcels and the FOSET Parcels that comprise the Facility and are the subject of this Agreement are located in the Main Post.

2. The United States Army operated an Interim Status Hazardous Waste Storage Unit on the former Fort McClellan facility until the certification of closure for the unit was approved on or about July 15, 1996. This unit was subject to the regulations and permitting requirements of the Resource Conservation and Recovery Act (RCRA) and the AHWMMMA. As a result of the operation of this unit, the contiguous Fort McClellan property became subject to the SWMU corrective action requirements pursuant to RCRA § 3004(u) and § 3004(v) and Section 22-30-16 of the AHWMMMA.
3. Certain wastes and constituents found at the Facility are hazardous wastes and/or hazardous constituents pursuant to the ADEM Administrative Code. These hazardous wastes and/or hazardous constituents may include, but are not limited to, munitions and explosives of concern (MEC) consisting of unexploded ordnance (UXO) and residue from ordnance and explosives (OE) training activities, as well as various chemical constituents which were or may have been released to the environment resulting from various other activities associated with training of Army troops.

4. There is or has been a release of hazardous wastes and/or hazardous constituents into the environment from the Facility.
5. The MDA agrees with the background presented in this Agreement, and, in an effort to cooperate with the Department and to comply with the provisions of the AHWMMMA, the MDA has consented to the terms of this Agreement.
6. The Department has agreed to the terms of this Agreement in order to continue to resolve environmental matters and to complete environmental remediation and restoration of the Facility. As a result, the Department has determined that the terms contemplated in this Agreement are in the best interests of the citizens of Alabama.

I.E. AGREEMENT

Based on the foregoing, it is hereby AGREED:

1. That, within 14 calendar days of the issuance of this Agreement or the retention of such person(s), whichever occurs later, the MDA shall provide a copy of this Agreement to all contractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Agreement, and shall condition all such contracts in compliance with the terms of this Agreement.
2. That, upon execution of this Agreement, the MDA shall comply with the provisions of Parts I through VII of this Agreement until a determination is made in writing by the Department, pursuant to Condition II.F. of this Agreement that all obligations have been or are fulfilled and the Agreement is terminated. This Agreement is issued as an alternative to a SWMU Corrective Action Permit pursuant to ADEM Admin. Code R. 335-14-8; therefore, references to the requirements and procedures of ADEM Admin. Code R. 335-14-8 shall be applicable to this Agreement.
3. That any modifications made to this Agreement will be handled in the same way permit modifications are handled, as defined in ADEM Admin. Code R. 335-14-8-.04(2).
4. That the Army and the MDA shall provide funding to the Department as reimbursement for the costs of regulating the Facility as follows:
 - a. Pursuant to separate agreements between the Army and the MDA, and between the Army and the Department, the Army has agreed to provide funding to the Department through the Defense State Memorandum of Agreement (DSMOA), for all costs of administering the provisions of this Agreement related to those activities for which the Army is responsible including, but not limited to, document reviews, contract support, compliance inspections, and other administrative costs incurred by the Department.
 - b. Pursuant to separate agreements between the Army and the MDA, and between the Army and the Department, the Army has agreed to provide funding to the Department through the DSMOA, for all costs of administering the provisions of

this Agreement related to those activities for which the MDA is responsible and for which the Army has agreed to fund regulatory costs under the ESCA, including, but not limited to, document reviews, contract support, compliance inspections, and other administrative costs incurred by the Department.

- c. The MDA shall reimburse the Department for all other costs of administering the provisions of this Agreement not reimbursed by the Army pursuant to Conditions I.E.4.a. and I.E.4.b. of this Agreement. Said reimbursement by the MDA shall be in accordance with the fees listed in Fee Schedule C of Chapter 335-1-6 of the ADEM Admin. Code. The applicable fees shall be those in effect on the date the fee becomes applicable to the Facility (*e.g.*, the date of submittal to the Department of a covered report or application). In the event it is necessary to the success of the program, the MDA may, at its discretion and on a case-by-case basis, provide funding to the Department above and beyond that provided in Agreement Condition I.E.4. to enhance document review and contract support capabilities of the Department. The Parties recognize the expenditure of such additional funds cannot occur without conformance by ADEM with state budgeting and contracting requirements.
5. That both the MDA and ADEM will use reasonable efforts to expedite the remedial process. The MDA will use all reasonable efforts to accelerate submittal of plans and reports and implementation of approved actions. ADEM will make all reasonable efforts to respond to the MDA with respect to all of the Department's obligations for comments, approval, or assistance as soon as practicable, or with the goal of not later than 60 calendar days from the receipt of the MDA's request.
6. That this Agreement shall apply to and be binding upon all parties, their directors, officers, and all persons or entities acting under or for them. Each signatory to this Agreement certifies that he or she is fully authorized by the party he or she represents to enter into the terms and conditions of this Agreement, to execute the Agreement on behalf of the party represented, and to legally bind such party.
7. That the MDA is not relieved of any liability if it fails to comply with any provision of this Agreement.
8. That, for the purposes of this Agreement only, the MDA agrees that the Department may properly bring an action to compel compliance with the terms and conditions contained herein in the Circuit Court for Montgomery County. The MDA also agrees that in any action brought by the Department to compel compliance with the terms of this Agreement, the MDA shall be limited to the defenses of Force Majeure, compliance with this Agreement, and physical impossibility.
9. That this Agreement shall be final, effective and binding on the Parties as of the effective date of the Governor's approval of the Covenant Deferral Request for the FOSET Parcels.

I.F. DISPUTE RESOLUTION

1. Notwithstanding any other provision in this Agreement, in the event the MDA disagrees, in whole or in part, with the Department's revision of a Submittal or disapproval of any Submittal required by this Part, the following may, at the MDA's discretion, apply:
 - a. In the event that the MDA chooses to invoke the provisions of this section, the MDA shall notify the Department in writing within 30 calendar days of receipt of the Department's revision of a Submittal or disapproval of a Submittal. Such notice shall set forth the specific matters in dispute, the position the MDA asserts should be adopted as consistent with the requirements of this Agreement, the basis for the MDA's position, and any matters considered necessary for the Department's determination.
 - b. The Department and the MDA shall have additional 30 calendar days from the Department's receipt of the notification provided for in Agreement Condition I.F.1. to meet or confer to resolve any disagreement.
 - c. In the event agreement is reached, the MDA shall submit and implement the Submittal in accordance with and within the time frame specified in such agreement.
 - d. If agreement is not reached within the 30-calendar-day period, the Department will notify the MDA in writing of his or her decision on the dispute, and the MDA shall comply with the terms and conditions of the Department's decision in the dispute. For the purposes of this provision in this Agreement, the responsibility for making this decision shall not be delegated below the Land Division Chief.
 - e. With the exception of those conditions under dispute, the MDA shall proceed to take any action required by those portions of the Submission and of this Agreement that the Department determines are not affected by the dispute.
 - f. Administrative actions of the Department enforcing the AHWMMMA are not subject to this section.

I.G. NOTICE

Whenever any person gives or serves any notice under this Agreement, each such notice shall be in writing and shall be deemed effective: (i) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served, or (ii) three (3) business days after deposit in the mail, if mailed by United States mail, postage paid, certified, return receipt requested:

To the MDA:

McClellan Development Authority
283 Rucker Street
Anniston, AL 36205

To the Department:

Chief, Land Division

For U.S. Mail:
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

For Delivery:
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

To the Army:

Headquarters Department of the Army, DASA (ESOH)
Office of the Assistant Secretary of the Army (Installations, Energy and
Environment)
ATTN: BRAC Directorate
110 Army Pentagon
Washington, DC 20310-0110

Table I.1.

LIST OF PARCELS COMPRISING FACILITY

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
FTMC-006	81(5)	Landfill #4	FOSET	ESCA	IV.2., VI.1.
FTMC-029	180(7)	Training Area T-5: Former Detection & ID Area	FOSET	ESCA	III.1.
FTMC-029	182(7)	Training Area T-5: Former Toxic Hazards Detection/Decontamination			
FTMC-029	511(7)	Training Area T-5: Blacktop Training Area			
FTMC-029	512(7)	Training Area T-5: Fenced Yard in Blacktop Area			
FTMC-029	513(7)	Training Area T-5: Dog Training Area			
FTMC-029	514(7)	Training Area T-5: Old Burn Pit			
FTMC-029	516(7)	Training Area T-5: Dog Kennel Area			
FTMC-030	183(6)	Training Area T-6: Former Agent Decontamination Training	FOSET	ESCA	IV.2., VI.1.
FTMC-030	510(7)	Training Area T-6: Cane Creek Training Area	FOSET	ESCA	IV.2., VI.1.
FTMC-144	230Q-X	Anti-Tank Range			
FTMC-144	149Q	Anti-Tank Range: Former Rifle Range	FOSET	ESCA	IV.2.
FTMC-031	184(7)	Anti-Tank Range: Training Area T-31, Former Tech Escort Reaction Area			
FTMC-031	185(7)	Anti-Tank Range: Former Tech Escort Reaction Area	FOSET	ESCA	IV.2.
FTMC-032	186(6)	Training Area T-38, Former Tech Escort Reaction Area	FOSET	ESCA	IV.1., VI.1.
FTMC-039	78(6)	Landfill #1	FOSET	ESCA	IV.2., VI.1.
FTMC-040	79(6)	Landfill #2	FOSET	ESCA	IV.2., VI.1.
FTMC-041	80(6)	Landfill #3	FOSET	ESCA	IV.2., VI.1.
FTMC-065	175(5)	Industrial Landfill	FOSET	ESCA	IV.2., VI.1.
FTMC-078	94(7)	Chemical Laundry and Motor Pool Area 1500	FOSET	ESCA	IV.2., VI.1.
FTMC-084	126(7)	Former Post Garbage Dump (N. of Reilly Airfield)	FOSET	ESCA	IV.2., VI.1.
FTMC-084	227(7)	Fill Area East of Reilly Airfield			

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
FTMC-092	24(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)	FOSET	ESCA	III.2., IV.3., VI.1.
FTMC-092	25(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)			
FTMC-092	73(7)	Motor Pool Area 3100: Washrack, Bldg 3142 (near Poly Inst)			
FTMC-092	146(7)	Motor Pool Area 3100: (Near Poly Inst)			
FTMC-092	212(7)	Motor Pool Area 3100: UST @ Bldg 3138 (Near Poly Inst)			
FTMC-113	229(7)	Fill Area NW of Reilly Airfield	FOSET	ESCA	IV.2., VI.1.
FTMC-122	66(7)	Small Weapons Repair Shop - Bldg 335	FOSET	ESCA	IV.2., VI.1.
FTMC-128	127(7)	Soldier's Chapel, Bldg. 1740	FOSET	ESCA	III.2., IV.3., VI.1.
FTMC-137	230(7)	Fill Area N. of Landfill #2	FOSET	ESCA	IV.2., VI.1.
FTMC-140	69Q	Iron Mountain Road Ranges: Skeet Range	FOSET	ESCA	III.2, IV.2., VI.1.
FTMC-140	70Q	Iron Mountain Road Ranges: Range 12: Competitive Pistol Range			
FTMC-140	71Q	Iron Mountain Road Ranges: Range 13: Qualification Pistol Range			
FTMC-140	75Q	Iron Mountain Road Ranges: Range 19: Qualification Pistol Range			
FTMC-140	221Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (Impact Area) N. of Washington Ranges			
FTMC-140	222Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (at Skeet Range)			
FTMC-144	72Q-X	Range 16: Grenade Launcher Range/ Dud Impact Area	FOSET	ESCA	III.1.
FTMC-144	150Q	Range 16: Former Rifle Range			
FTMC-144	88Q	Range 30: End of Cycle Test Range (Impact Area)	FOSET	ESCA	III.2., IV.2., VI.1.
FTMC-144	103Q	Range 30: Former Rifle/Machine Gun Range			
FTMC-144	88Q	Range 30: Firing Line			

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
FTMC-257	132Q-X	Impact Area, North Central Main Post	FOSET	ESCA	III.2., IV.2., IV.3.
FTMC-243	21(7)	Base Service Station: Bldg 2109	FOSET	ESCA	III.2., IV.3.
FTMC-243	22(7)	Base Service Station: UST @ Base Service Station, Bldg 2109			
Alpha	Alpha 106Q-X* NA* OA-08*	Portions of M5-1L-(North) PR, M6-1L Remainder-I/AR, M6-1M Remainder-PR, M6-1M Remainder-I/AR, Smoke Ranges R & S/T-38 - PR Range 30: Former Rifle Range/Grenade Area* Unnamed Small Arms Range* Tank Sub-caliber/Carbine Transition/Machine Gun Range*	FOSET	ESCA	III.2.
Alpha	Northern Alpha	M6-1L Suspect Area-I/AR	FOSET	ESCA	IV.2., IV.3.
Alpha	Southern Alpha 135Q-X*	M5-1L-I and M5-1L (South) – PR Impact area, near Stump Dump*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Alpha	MRS-12 102Q* OA-08*	Portions of M6-1M Transect Area 2 (North), M6-1M Suspect Area (North) – PR, M6-1M Burn Pit-PR, and Supplemental EE/CA NT-1N, NT-1S and NT-2 Former Rifle/Machine Gun Range* Tank Sub-caliber/Carbine Transition/Machine Gun Range*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Alpha	MRS-13 99Q* OA-08*	Portions of M6-1M Transect Area 1 (South), M6-1M Suspect Area (South)-PR and Supplemental EE/CA ST-1, ST-2 and ST-3 Former Rifle/Machine Gun Range* Tank Sub-caliber/Carbine Transition/Machine Gun Range*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-144	100Q	Former Rifle/Machine Gun Range (Firing Line Areas)	FOSET	NON-ESCA	III.2.
FTMC-144	101Q				
FTMC-144	100Q	Impact Area South of Prisoner-of-War Training Facility (IASPOW), Former Rifle/Machine Gun Ranges	FOSET	ESCA	III.2, IV.2, VI.1
FTMC-144	101Q				

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
FTMC-140	74Q	Baby Bains Gap Road Ranges: Range 18: Down Range Feedback (known distance) Range	FOSET	ESCA	IV.2.
FTMC-140	83Q	Baby Bains Gap Road Ranges: Range 25: Known Distance (KD) Range	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-140	84Q-X	Baby Bains Gap Road Ranges: Range 26: Live Fire and Maneuver Area	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.1.
FTMC-140	118Q-X	Baby Bains Gap Road Ranges: Former Main Post Impact Area (Range 25 backstop)	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-144	224Q	Baby Bains Gap Road Ranges: Former Pistol Range S. of R25 - East	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-144	226Q	Baby Bains Gap Road Ranges: Former Machine Gun Range	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-140	79Q	Baby Bains Gap Road Ranges: Range 23: Trainfire (Record) Range	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-140	86Q	Baby Bains Gap Road Ranges: Range 28: Blank Fire and Maneuver Range	FOSET	ESCA	III.2., VI.1.
FTMC-140	223Q	Baby Bains Gap Road Ranges: Former Range 25 - east. Rifle Range	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
FTMC-140	227Q	Baby Bains Gap Road Ranges: Former Pistol Range	FOSET	ESCA	III.2., VI.1.
FTMC-144	130Q-X	Mock Village, located at present Yahou Lake	FOSET	ESCA	III.1.
FTMC-144	114Q-X	Former Large Caliber Range	FOSET	ESCA	III.1.
FTMC-144	87Q-X	Range 29: Weapons Demonstration Range	FOSET	ESCA	III.2., IV.2., VI.1.
FTMC-144	110Q	Range 29: Former Rifle Range			
FTMC-144	111Q	Range 29: Former Rifle Range			
FTMC-144	239Q-X	Range 29: Impact Area, Central Main Post			
FTMC-255	89Q-X	Range 31: Weapons Demonstration Range	FOSET	ESCA	III.2., IV.2., IV.3.
FTMC-144	215Q	Range 31: Former Defendum Field Firing Range No. 2	FOSET	ESCA	III.2., IV.2., IV.3.
FTMC-144	NA	Area North of MOUT Site	FOSET	ESCA	III.1.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
Bravo	GT/Y 181(7)* 194(7)* 229Q-X* 232Q-X* 518(7)* OA-15*	Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass Y Area Junction Training Area T-4, Former Biological Simulant Test Area* Former Weapons Demonstration Area* Area 45/M2* Former Rocket Launcher Range* South Gate Toxic Gas Yard* Grenade Court*	FOSET	ESCA	III.2., IV.3., VI.1.
Bravo	MRS-1	South Side of Bains Gap Road in Bravo Area: Portions of M4-1H Mixed Use Area – PR	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-2 90Q-X* 108Q-X* 121Q-X* 200Q* 201Q* 219Q-X* 231Q*	Portions of M3-1L Mixed Projectile Area-PR, M3-1L Suspect Area 1-PR, A1 Reconnaissance Area-D, M4-1H Mixed Use Area – PR Range 32: Hand Grenade Range* Former Artillery Training Area* Former Main Post Impact Area (large caliber rounds outside established impact area)* Former Rifle Range (Washington Range)* Former Field Firing Range (Washington Range)* UXO point* Former Range (O.Q. - 2A)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-3 73Q-X* 91Q-X* 116Q-X* 117Q-X* 200Q* 201Q* 228Q* 231Q*	Portion of M3-1H Mixed Use Area-D, M3-2H Mortar Area-PR, M3-2H Mortar Area-D, M3-1L Rocket Area-D, M3-1L 37mm Projectile Area-D, M3-3H Rocket/Grenade Area-D and all of M3-1H Rocket Area-PR and M3-1H Grenade Area-PR Range 17: Explosives Proficiency Training Area* Dud Impact Area* Former 60 mm Mortar Range* Former Main Post Impact Area (Museum Area)* Former Rifle Range (Washington Range)* Former Field Firing Range (Washington Range)* Former Machine Gun Transition Range* Former Range (O.Q. - 2A)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-4 108Q-X* 122Q-X*	Portion of M4-1H Mixed Use Area –PR Former Artillery Training Area* Former Main Post Impact Area (large caliber rounds outside established impact area)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
Bravo	MRS-5 108Q-X* 123Q-X*	Portion of M3-1L Mixed Projectile Area – PR Former Artillery Training Area* Former Main Post Impact Area (large caliber rounds outside established impact area)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-6 73Q-X* 115Q* 116Q-X* 117Q-X* 129Q-X* 151Q* 201Q* 231Q*	Portion of M3-1L Rocket Area –D, M3-2H Mortar Area – D, and M3-2H Mortar Area – PR Range 17: Explosives Proficiency Training Area* Former Small Arms Range* Former 60 mm Mortar Range* Former Main Post Impact Area (Museum Area)* Vietnam Village on southwestern Main Post* Former Rifle Range* Former Field Firing Range (Washington Range)* Former Range (O.Q. - 2A)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-7 200Q* 201Q* 228Q*	Portion of M3-1L 37mm Projectile Area – D and M3-1H Mixed Use Area – D Former Rifle Range (Washington Range)* Former Field Firing Range (Washington Range)* Former Machine Gun Transition Range*	FOSET	ESCA	IV.2., IV.3.
Bravo	MRS-8 108Q-X* 201Q* 231Q*	Portion of M3-1L Suspect Area 1 – PR, A1 Recon Area – D, and M3-2M Hand Grenade Area – PR Former Artillery Training Area* Former Field Firing Range (Washington Range)* Former Range (O.Q. - 2A)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-9 200Q*	Portion of M3-3H Rocket/Grenade Area – D and M3-2M Hand Grenade Area - PR Former Rifle Range (Washington Range)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.
Bravo	MRS-10 200Q* 201Q* 231Q*	M3-1L Suspect Area 2 – PR Former Rifle Range (Washington Range)* Former Field Firing Range (Washington Range)* Former Range (O.Q. - 2A)*	FOSET	ESCA	IV.2., IV.3.,
Bravo	MRS-11 108Q-X* 116Q-X* 200Q* 201Q* 220Q-X* 228Q* 231Q*	M3-Remainder Area-PR Former Artillery Training Area* Former 60 mm Mortar Range* Former Rifle Range (Washington Range)* Former Field Firing Range (Washington Range)* UXO point* Former Machine Gun Transition Range* Former Range (O.Q. - 2A)*	FOSET	ESCA	III.2., IV.2., IV.3., VI.1.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE			
FTMC-144	92Q-X	Former Tank Range	FOSET	ESCA	III.2., IV.3.			
FTMC-144	93Q-X	Former Tank Range						
FTMC-144	107Q-X	Former Grenade Range						
FTMC-033	112Q	Former Machine Gun Range	FOSET	NON-ESCA	IV.1.			
FTMC-033	213Q	Former Bandholtz Machine Gun qualifying range. Main Post						
FTMC-033	214Q	Former Bandholtz field firing range. Main Post						
FTMC-034	188(7)	Old Toxic Training Area	FOSET	NON-ESCA	III.2.			
FTMC-056	68Q	Iron Mountain	FOSET	NON-ESCA	III.2.			
FTMC-071	155(4)	Ground Scar w/pit, N. of Landfill #3	FOSET	NON-ESCA	III.2.			
FTMC-077	93(7)	Former Decontamination Complex - Bldg. 1271, Chemical Laundry, Area 1200 Motor Pool	FOSET	NON-ESCA	III.2.			
FTMC-077	140(4)	Former Gas Station @ Area 1200 Motor Pool, Bldg 1294	FOSET	NON-ESCA	III.2.			
FTMC-095	2(4)	UST @ GSA Motor Pool, Bldg 238	GSA Warehouse Area FOST	NON-ESCA	III.2., VI.1.			
FTMC-095	3(4)	UST @ Telephone Exchange, Bldg 251						
FTMC-095	4(4)	POL point, Bldg 265						
FTMC-095	67(4)	Former Battery Maintenance Area, Bldg 234						
FTMC-095	69(4)	Washrack, Bldg 253						
FTMC-095	91(4)	Former Dry Cleaning Area, Bldg T-233						
FTMC-095	111(4)	Former Multi Craft Shop, Bldg 245						
FTMC-095	128(4)	Former Washrack @ Nielsen St.						
FTMC-095	129(4)	Washrack, near Bldg T-222						
FTMC-095	151(4)	GSA Warehouse Area						
FTMC-095	238(4)	UST @ Former Gas Station, near Bldg 234						
FTMC-078	132(7)	Former Gas Station, Bldg 1594, Motor Pool Area 1500. Bldg removed.				FOSET	NON-ESCA	III.2.
FTMC-078	133(7)	Former Gas Station @ Area 14, Bldg 1494, at Old Chemical Laundry. Bldg removed.				FOSET	NON-ESCA	III.2.
FTMC-078	134(7)	Former Gas Station @ Area 15, Bldg 1594A. Bldg removed.	FOSET	NON-ESCA	III.2.			

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
FTMC-079	105(3)	Former Smoke Area R	FOSET	NON-ESCA	III.2.
FTMC-079	106(3)	Former Smoke Area S	FOSET	NON-ESCA	III.2.
FTMC-130	231(7)	Probable Fill Area at Range 30	FOSET	NON-ESCA	III.2.
FTMC-136	122(3)	Former Fog Oil Storage Area W. of Skeet Range	FOSET	NON-ESCA	III.2.
FTMC-139	177(3)	AST @ Range 16	FOSET	NON-ESCA	III.2.
FTMC-144	104Q	Former Rifle/Machine Gun Range	FOSET	NON-ESCA	III.2.
FTMC-144	133Q-X	Impact area, North Central Main Post.	FOSET	NON-ESCA	III.2., IV.3.
FTMC-233	17(4)	UST @ Bldg 1696 Motor Pool	FOSET	NON-ESCA	III.2.
FTMC-233	18(3)	UST @ Bldg 1697 Motor Pool	FOSET	NON-ESCA	III.2.
FTMC-233	19(3)	UST @ Bldg 1694 Motor Pool	FOSET	NON-ESCA	III.2.
FTMC-233	43(3)	UST @ Bldg 796 (Bldg demolished)	FOSET	NON-ESCA	III.2.
FTMC-236	500(3)	Trenches W. of Iron Mountain Road	FOSET	NON-ESCA	III.2.
FTMC-237	71(3)	Washrack, Bldg 1643, Motor Pool Area 1600	FOSET	NON-ESCA	III.2.
FTMC-237	163(3)	Motor Pool Area 1600	FOSET	NON-ESCA	III.2.
FTMC-237	503(3)	Motor Pool Area 1600	FOSET	NON-ESCA	III.2.
FTMC-237	504(3)	Motor Pool Area 1600	FOSET	NON-ESCA	III.2.
FTMC-91	124(3)	Former Smoke Range Battle Visualization Zone (BVZ)	FOSET	NON-ESCA	III.2.
NA	95(3)	Old Hospital	DOJ ECOP Super FOST 1	NON-ESCA	III.2.
NA	157(3)	Ground Scar South of Autosshop	FOSET	NON-ESCA	III.2.
NA	218Q-X	UXO point	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	234(1)	Trenches at Range 19	FOSET	NON-ESCA	III.2.
NA	22Q	Transformer at Bldg. 141C	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	23Q	Transformer at Bldg. 162	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	63Q	Radiological Facility, Bldg. T-812 1/2	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	98(1)	Current Hazardous Storage Facility, Bldg 348	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	193(3)	Reported CWM Spill/Burial Site, CWM Spill South 23rd Street	FOST E-1 Ref. 62	NON-ESCA	III.2.
NA	66Q	Radiological Facilities, Bldgs. 3180, 3182, 3192, and alpha/bromine fields	FOST E-1 Ref. 62 FOSET	NON-ESCA	III.2.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
NA	501(3)	Bldgs South of Reilly Airfield	FOST E1.13.501 Ref. 63	NON-ESCA	III.2.
NA	7(3)	UST @ Consolidated Maint, Bldg 350	FOST E-7 Ref. 65	NON-ESCA	III.2.
NA	77(3)	Former Fire Trng Pit, Bldg 350	FOST E-7 ref. 65	NON-ESCA	III.2.
NA	170(3)	Consolidated Main Facility, Bldg 351 Washrack	FOST E-7 Ref. 65	NON-ESCA	III.2.
NA	76(1)	Consolidated Maintenance Facility, Bldg 350/351	FOST E-7 Ref. 65	NON-ESCA	III.2.
NA	83(3)	Bldg. S-2252 Golf Course Pesticide/Mix Storage Facility	Parks & Recreation	NON-ESCA	III.2.
NA	139(3)	Former Gas Station @ Motor Pool Area 1000, Bldg 1094 (Truman Gym)	Parks & Recreation	NON-ESCA	III.2.
NA	141(3)	Former Pesticide Storage & Mixing, Bldg T-2249	Parks & Recreation	NON-ESCA	III.2.
NA	150(3)	Motor Pool Area 1000, Bldg. 1012 (Truman Gym)	Parks & Recreation	NON-ESCA	III.2.
NA	147(3)	Vehicle Maintenance Shop, Motor Pool Area 3100 (S. of 23rd Street)	Parks & Recreation FOSET EBP Tract 3	NON-ESCA	III.2.
NA	1(3)	UST @ Bldg. 215	Super FOST 1	NON-ESCA	III.2.
NA	9(3)	UST @ Recreation Bldg, Bldg 503	Super FOST 1	NON-ESCA	III.2.
NA	11(4)	UST @ Bldg 888 Motor Pool	Super FOST 1	NON-ESCA	III.2.
NA	12(4)	UST @ Bldg 894 Motor Pool	Super FOST 1	NON-ESCA	III.2.
NA	15(3)	USTs @ Former WAC Museum	Super FOST 1	NON-ESCA	III.2.
NA	29(3)	Bldg 3294/3299, 11th Chemical Motor Pool Area	Super FOST 1	NON-ESCA	III.2.
NA	30(4)	UST @ Bldg 3298, 11th Chemical Motor Pool Area	Super FOST 1	NON-ESCA	III.2.
NA	31(4)	UST @ ASP at Bldg 4407	Super FOST 1	NON-ESCA	III.2.
NA	33(3)	UST @ Bldg S-55 (Buckner Circle)	Super FOST 1	NON-ESCA	III.2.
NA	36(3)	UST @ Bldg 141, Admin Bldg.	Super FOST 1	NON-ESCA	III.2.
NA	37(3)	UST @ Bldg 143, Admin Bldg.	Super FOST 1	NON-ESCA	III.2.
NA	39(3)	UST @ Bldg 273, Clothing Bldg.	Super FOST 1	NON-ESCA	III.2.
NA	48(3)	UST @ Bldg 1928, Bowling Alley	Super FOST 1	NON-ESCA	III.2.
NA	49(3)	UST @ Bldg 1929, Dental Clinic	Super FOST 1	NON-ESCA	III.2.
NA	50(3)	UST @ Bldg. 1965, PX	Super FOST 1	NON-ESCA	III.2.
NA	51(3)	UST @ Bldg. 1966, Post Office	Super FOST 1	NON-ESCA	III.2.
NA	52(3)	UST @ Bldg 1997, Motor Pool	Super FOST 1	NON-ESCA	III.2.
NA	56(3)	UST @ Bldg 3212, Community Club	Super FOST 1	NON-ESCA	III.2.
NA	57(3)	UST @ Bldg 3213, Recreation Center	Super FOST 1	NON-ESCA	III.2.
NA	58(3)	UST @ Bldg 3293, Chapel	Super FOST 1	NON-ESCA	III.2.
NA	60(3)	AST @ Bldg 296, Bulk Storage Area	Super FOST 1	NON-ESCA	III.2.
NA	63(3)	UST @ Bldg 162	Super FOST 1	NON-ESCA	III.2.
NA	64(3)	DEH Compound	Super FOST 1	NON-ESCA	III.2.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
NA	68(3)	Washrack, Bldg 866	Super FOST 1	NON-ESCA	III.2.
NA	74(3)	Washrack, Bldg 3262/3263 @ 11th Chemical Motor Pool Area	Super FOST 1	NON-ESCA	III.2.
NA	85(3)	DRMO Area	Super FOST 1	NON-ESCA	III.2.
NA	125(3)	Old Incinerator, Bldg 5710	Super FOST 1	NON-ESCA	III.2.
NA	130(3)	Former Quartermasters Gas Storage Area, near ASP	Super FOST 1	NON-ESCA	III.2.
NA	131(3)	Former Fuel Yard	Super FOST 1	NON-ESCA	III.2.
NA	136(3)	Former Gas Station @ Area 600, Bldg 694. Bldg removed.	Super FOST 1	NON-ESCA	III.2.
NA	137(3)	Former Gas Station @ Area 2000 motor pool, Bldg 2094. Bldg removed.	Super FOST 1	NON-ESCA	III.2.
NA	138(3)	Former Printing Plant, Bldg 143 (basement)	Super FOST 1	NON-ESCA	III.2.
NA	144(3)	Former Motor Pool Area 2000	Super FOST 1	NON-ESCA	III.2.
NA	145(3)	Motor Pool Areas 1800/1900	Super FOST 1	NON-ESCA	III.2.
NA	149(3)	Motor Pool Area 600	Super FOST 1	NON-ESCA	III.2.
NA	162(3)	Printing Plant, Bldg. 3183	Super FOST 1	NON-ESCA	III.2.
NA	164(3)	Motor Pool Area 800	Super FOST 1	NON-ESCA	III.2.
NA	167(3)	USTs at Former WAC Museum, Bldg 1077	Super FOST 1	NON-ESCA	III.2.
NA	171(3)	Former Printing Plant, Bldg 144 (1st Floor)	Super FOST 1	NON-ESCA	III.2.
NA	173(3)	Former Printing Plant, Bldg 2051	Super FOST 1	NON-ESCA	III.2.
NA	196(3)	Gas Mask Test Chamber, Bldg. 439	Super FOST 1	NON-ESCA	III.2.
NA	200(3)	Ground Scar w/Trenches @ Driving Course	Super FOST 1	NON-ESCA	III.2.
NA	228(3)	Trenches west of Remount Creek	Super FOST 1	NON-ESCA	III.2.
NA	236Q	Drain field - Bldg T459	Super FOST 1	NON-ESCA	III.2.
NA	506(3)	UST @ Bldg. 3691	Super FOST 1	NON-ESCA	III.2.
NA	519(4)	Bldg 141- Pistol Range in attic	Super FOST 1	NON-ESCA	III.2.
NA	520(4)	Bldg. 143. Former Pistol Range in attic of building	Super FOST 1	NON-ESCA	III.2.
NA	198(3)	Former CS Training Area	Super FOST 1 DD 1354	NON-ESCA	III.2.
NA	178(3)	Golf Course	Super FOST 1/ Parks & Recreation	NON-ESCA	III.2.
NA	5(3)	UST @ Former Ordnance Motor Repair Area (OMRA), Bldg 326	Super FOST 2	NON-ESCA	III.2.
NA	6(4)	UST @ Recycling Center, Bldg 338	Super FOST 2	NON-ESCA	III.2.
NA	20(4)	UST @ Autocraft Shop, Bldg. 1800	Super FOST 2	NON-ESCA	III.2.
NA	26(3)	UST @ Boiler Plant #1, Bldg 3176	Super FOST 2	NON-ESCA	III.2.
NA	32(4)	UST @ Former Tar Plant/Temp Transformer Storage Facility, Bldg 4437	Super FOST 2	NON-ESCA	III.2.
NA	42(4)	UST @ Bldg 338, Recycling Center	Super FOST 2	NON-ESCA	III.2.
NA	47(3)	UST @ Bldg 1800, Autocraft Shop	Super FOST 2	NON-ESCA	III.2.
NA	60Q	Current PCB Storage Facility, Bldg. 4460	Super FOST 2	NON-ESCA	III.2.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
NA	86(3)	Contractor Laydown Area	Super FOST 2	NON-ESCA	III.2.
NA	89(3)	Boiler Plant #1, Bldg 3176	Super FOST 2	NON-ESCA	III.2.
NA	96(3)	Former Incinerators, Bldgs. 4428/4430	Super FOST 2	NON-ESCA	III.2.
NA	99(3)	Former Tar Plant/Temporary Transformer Storage Facility, Bldg S-4437	Super FOST 2	NON-ESCA	III.2.
NA	100(3)	Autocraft Shop, Bldg 1800	Super FOST 2	NON-ESCA	III.2.
NA	101(3)	UST @ Boiler Plant #4, Bldg 1876	Super FOST 2	NON-ESCA	III.2.
NA	143(3)	Motor Pool Area 1300 2nd Avenue	Super FOST 2	NON-ESCA	III.2.
NA	148(3)	Former Motor Pool Area 1300, 4th Ave	Super FOST 2	NON-ESCA	III.2.
NA	152(3)	Former DPDO - Salvage Yard	Super FOST 2	NON-ESCA	III.2.
NA	153(3)	Ground Scar South of Bldg. 3134	Super FOST 2	NON-ESCA	III.2.
NA	154(3)	Ground Scar/Trenches off Littlebrandt Road	Super FOST 2	NON-ESCA	III.2.
NA	156(3)	Ground Scar near ASP	Super FOST 2	NON-ESCA	III.2.
NA	158(3)	Ground Scar @South End of Confidence Course	Super FOST 2	NON-ESCA	III.2.
NA	166(3)	Training Aids Building - Bldg 267	Super FOST 2	NON-ESCA	III.2.
NA	236(3)	Boiler Plant No. 4, Bldg. 1876	Super FOST 2	NON-ESCA	III.2.
NA	241(3)	Former Area 2100 Motor Pool	Super FOST 2	NON-ESCA	III.2.
NA	226(3)	Boiler Plant No. 2, Bldg 2278	Super FOST 2 DD 1354	NON-ESCA	III.2.
NA	75(3)	Former OMRA/Adjacent Warehouses	Super FOST 2 DOJ ECOP	NON-ESCA	III.2.
NA	67Q	Radiological Facility, Bldg. 4416	Super FOST 3	NON-ESCA	III.2.
NA	97(3)	Former Sandel Flame Thrower Range	Super FOST 3	NON-ESCA	III.2.
NA	179(3)	Former Personnel Decontamination Station, Bldg. 3185	Super FOST 3	NON-ESCA	III.2.
NA	189(3)	Reported CWM Spill/Burial Site N. of Bldg 267	Super FOST 3	NON-ESCA	III.2.
NA	190(3)	Reported CWM Spill/Burial Site E. of Bldg 1928	Super FOST 3	NON-ESCA	III.2.
NA	191(3)	Reported CWM Spill/Burial Site S. of Bldg 141	Super FOST 3	NON-ESCA	III.2.
NA	192(3)	Reported CWM Spill/Burial Site W. of Bldg 3181	Super FOST 3	NON-ESCA	III.2.
NA	199(3)	Bldg 4416 @ ASP	Super FOST 3	NON-ESCA	III.2.
NA	505(3)	UST @ Bldg. 3179	Super FOST 3	NON-ESCA	III.2.
NA	509(3)	Agent ID Area	Super FOST 3	NON-ESCA	III.2.
NA	515(3)	Field Personnel Decontamination Area	Super FOST 3	NON-ESCA	III.2.
NA	517(7)	CBR Proficiency Area	FOSET	NON-ESCA	III.2.
NA	44(4)	UST @ Bldg 1201 (Bldg demolished)	Super FOST 3 DD 1354	NON-ESCA	III.2.
NA	247Q-X	Probable Range, SW Main Post	Super FOST 3 EBP Tract 1	NON-ESCA	III.2.
NA	197(3)	Ammunition Supply Point	Super FOST 3 Super FOST 2 FOSET	NON-ESCA	III.2.

DSERTS #	CERFA PARCEL#	DESCRIPTION	FOSET/ FOST	ESCA/NON-ESCA	CURRENT AGREEMENT TABLE
NA	OA-03	Former Pistol Range	NA*	ESCA	III.2., IV.3., VI.1.

ASP: Ammunition Supply Point

AST: Above ground Storage Tank

BVZ: Battle Visualization Zone

CA Mod: Cleanup Agreement Modification

CBR: Chemical, Biological and Radiological

CERFA: Community Environmental Response Facilitation Act

CWM: Chemical Warfare Materiel

DD: Decision Document

DEH: Directorate of Engineering and Housing

DPDO: Defense Property Disposal Office

DRMO: Defense Reutilization and Marketing Office

DSERTS: Defense Site Environmental Restoration Tracking System

EBP: Eastern Bypass

ECOP: Environmental Condition of Property

EE/CA: Engineering Evaluation/Cost Analysis

FOSET: Finding of Suitability for Early Transfer

FOST: Finding of Suitability to Transfer

FTMC: Fort McClellan

GSA: General Services Administration

GT/Y: Golden Triangle/Y Area

HTRW: Hazardous Toxic Radioactive Waste

MOU: Military Operations in Urban Terrain

MRS: Munitions Response Site

NA: Not Applicable

OA: Ordnance Area

PCB: Polychlorinated Biphenyl

POL: Petroleum, Oil and Lubricant

SW: Southwest

TBD: To Be Determined

UST: Underground Storage Tank

WAC: Women's Army Corps

ESCA: Environmental Services Cooperative Agreement

NA*: Site OA-03 is not specifically listed in any FOST/FOSET as it was not identified until 2008.

CERFA Parcel #s and Site Descriptions listed with an asterisk (*) are included with the appropriate Alpha/Bravo areas they are associated with for ADEM filing purposes only.

Table I.2.

The following table presents a list of the documents incorporated by reference.

List of Documents Incorporated By Reference:

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
1.	May 4, 2007	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Munitions Response Site (MRS)-2. Prepared by Matrix Environmental Services, LLC, June 2007	June 28, 2007		Bravo Munitions Response Area MRS-2	
2.	August 31, 2005	Final Engineering and Cost Analysis (EE/CA) Action Memorandum Alpha Area Munitions and Explosives of Concern. Prepared by Matrix Environmental Services, LLC, August 2005	October 4, 2005		Alpha Area	
3.	August 21, 2006	Final Engineering Evaluation and Cost Analysis (EE/CA) Action Memorandum Bravo Munitions Response Site-1 and Industrial Access Road. Prepared by Matrix Environmental Services, LLC, August 2006	July 21, 2006		Bravo Munitions Response Site-1 and Industrial Access Road	ADEM concurred with the Draft-Final on July 21, 2006; did not send letter for the Final
4.	October 6, 2006	Final Corrective Measures Implementation Plan for Chemical Laundry and Motor Pool Area 1500, Parcel 94(7). Prepared by Matrix Environmental Services, LLC, September 2006	June 24, 2011;	August 22, 2007; September 4, 2013; October 4, 2013; September 29, 2015; January 9, 2017	Chemical Laundry and Motor Pool Area 1500, Parcel 94(7)	MDA revised the document to remove wells from the groundwater monitoring system
5.	June 5, 2001	Final Action Memorandum for Eastern Bypass. Prepared by US Army. August 2, 2001	June 22, 2001		Eastern Bypass	
6.	March 12, 2001	Final Findings of Suitability to Transfer (FOST), Eastern Bypass Tract No. 1, March 2001	March 13, 2001		Eastern Bypass Tract No. 1	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
7.	February 10, 2003	Final Findings of Suitability to Transfer (FOST), Eastern Bypass Tract No. 2 and the Western Portion of Eastern Bypass Tract No. 3, July 2003	April 11, 2003		Eastern Bypass Tract No. 2 and the Western Portion of Eastern Bypass Tract No. 3	ADEM sent comments on April 11, 2003; no concurrence letter sent.
8.	June 9, 2009	Action Memorandum for Iron Mountain Road Addition. Prepared by U.S. Army Corps of Engineers Engineering and Support Center, Huntsville, AL, May 2009	November 5, 2009		Iron Mountain Road Addition	
9.	June 2, 2006	Final Decision Document (DD) for Portions of Iron Mountain Road Ranges on ALDOT Eastern Bypass Corridor. Prepared by Shaw Environmental, June 2006	January 5, 2007		Iron Mountain Road Ranges on ALDOT Eastern Bypass Corridor	
10.	January 15, 2008	Final Corrective Measures Implementation Plan Landfill 1 Parcel 78(6), Landfill 2 Parcel 79(6), Former Post Garbage Dump Parcel 126(7), Fill Area East of Reilly Airfield Parcel 227(7), and Fill Area North of Landfill 2 Parcel 230(7), McClellan, Anniston, Alabama, Prepared by Matrix Environmental Services, LLC, August 2007	February 26, 2008		Landfill 1 Parcel 78(6), Landfill 2 Parcel 79(6), Former Post Garbage Dump Parcel 126(7), Fill Area East of Reilly Airfield Parcel 227(7), Fill Area North of Landfill 2 Parcel 230(7)	
11.	July 28, 2006	Final Corrective Measures Implementation Plan Landfill 3 and the Fill Area Northwest of Reilly Airfield Parcels 80(6) and 229(7) McClellan, Anniston, Alabama. Prepared by Matrix Environmental Services, LLC, July 2006	November 29, 2006	October 12, 2006	Landfill 3 and the Fill Area Northwest of Reilly Airfield Parcels 80(6) and 229(7)	Document is associated with landfill cover system
12.	August 14, 2008	Final Corrective Measures Implementation (CMI) Plan for Groundwater Landfill 3, Parcel 80(6), and Fill Area Northwest of Reilly Airfield, Parcel 229(7) McClellan, Anniston, Alabama. Prepared by Matrix Environmental Services, LLC and Geosyntec, August 2008	February 13, 2014	February 23, 2011	Landfill 3, Parcel 80(6), and Fill Area Northwest of Reilly Airfield, Parcel 229(7)	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
13.	April 7, 2016	Supplemental Investigation Former Pistol Range, Parcel OA-03 McClellan, Anniston, Alabama. Prepared by Matrix Environmental Services, LLC, January 2017	January 26, 2017	January 17, 2017	Parcel OA-03	
14.	January 2, 2002	Final Action Memorandum for the M1.01 Parcel, January 18, 2002	December 11, 2001		M1.01 Golden Triangle/Y Area	ADEM concurred with the Draft on December 11, 2001; did not send letter for the Final
15.	July 28, 2005	Final Decision Document Former Motor Pool Area 3100, Parcels 146(7), 212(7), 24(7), 25(7), and 73(7). Prepared by Shaw Environmental, July 2005	January 10, 2005		Motor Pool Area 3100, Parcels 212(7), 24(7), 25(7), 73(7), 146(7)	ADEM sent comments on the Draft-Final SI on January 10, 2005; did not send letter for the Final DD
16.	October 26, 2006	Final Decision Document Range 30, Confidence Course (Firing Line), Parcel 88Q; Former Rifle/Machine Gun Range, Parcel 102Q; Former Grenade Range/Area, Parcel 106Q-X; Tank Sub-Caliber/Carbine Transition/Machine Gun Range (OA-08); Grenade Court (OA-15); Unnamed Small Arms Range. Prepared by Shaw Environmental, Inc., October 2006	October 23, 2007		Range 30, Confidence Course (Firing Line), Parcel 88Q; Former Rifle/Machine Gun Range, Parcel 102Q; Former Grenade Range/Area, Parcel 106Q-X; Tank Sub Caliber/Carbine Transition/Machine Gun Range, OA-08; Grenade Court, OA-15; Unnamed Small Arms Range	
17.	August 25, 2006	Final Decision Document for Range 31: Weapons Demonstration Range, Parcel 89Q-X and Former Defendum Field Firing Range No. 2, Parcel 215Q. Prepared by Shaw Environmental, Inc., August 2006	July 11, 2007		Range 31: Weapons Demonstration Range, Parcel 89Q-X and Former Defendum Field Firing Range No. 2, Parcel 215Q	
18.	June 17, 2003	Final Findings of Suitability to Transfer (FOST), GSA Warehouse, August 2003.	September 22, 2003		GSA Warehouse	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
19.	April 14, 2017	Sitewide Corrective Measures Implementation Plan for Soil Remediation	July 23, 2019	March 7, 2018	Site-Wide	
20.	June 1999	Final Record of Decision (ROD) for the Environmental Statement for the Disposal and Reuse of Fort McClellan, AL, dated June 1999, Filed with the Environmental Impact Statement, Disposal and Reuse, August 1998	No Concurrence Date		Site-Wide	Document was sent for records; ROD satisfies NEPA requirement to examine environmental impacts of disposal and reuse of FTMC
21.	December 9, 1999	Final Finding of Suitability to Lease (FOSL), JPA Master Lease, Volumes I and II, January 6, 2000.	December 17, 1999		Site-Wide	
22.	June 8, 2000	Final Finding of Suitability to Transfer (FOST), JPA E1 Transfer, Volumes I and II, June 2000.	July 17, 2000		Site-Wide	
23.	November 28, 2000	Final Findings of Suitability to Transfer (FOST), JPA E1.13.501(3) Transfer, December 2000.	December 1, 2000		Site-Wide	
24.	November 22, 2000	Final Findings of Suitability to Transfer (FOST), JPA E2 Transfer, December 2000.	December 1, 2000	January 3, 2001	Site-Wide	
25.	November 27, 2000	Final Findings of Suitability to Transfer (FOST), JPA E7 Transfer, December 2000.	December 1, 2000		Site-Wide	
26.	August 9, 2008	Final Corrective Measures Implementation Plan Training Area T-6 (Naylor), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7), McClellan, Anniston, Alabama. Prepared by Matrix Environmental Services, LLC, August 2008	June 24, 2011	February 24, 2015; June 15, 2017; June 20, 2024 (Pending CA modification)	T-6 (Naylor), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
27.	April 2, 2008	Final Decision Document for the Former Tank Ranges, Parcels 92Q-X and 93Q-X, Former Grenade Range, Parcel 107Q-X, and Impact Areas, Parcels 133Q-X and 134Q-X. Prepared by Shaw Environmental, Inc., April 2008	May 2, 2012	March 23, 2012	Former Tank Ranges, Parcels 92Q-X and 93Q-X and Former Grenade Range, Parcel 107Q-X ; Impact Area, Parcels 133Q-X and 134Q-X	
28.	November 6, 2001	Final Findings of Suitability to Transfer (FOST), SUPERFOST 1, January 2002	December 19, 2001	November 8, 2001	Site-Wide	
29.	August 5, 2002	Final Findings of Suitability to Transfer (FOST), SUPERFOST II, October 2002	October 1, 2002		Site-Wide	ADEM commented on October 1, 2002; no concurrence letter sent; concurrence based on inclusion of unresolved regulatory comments in FOST
30.	June 12, 2003	Final Findings of Suitability to Transfer (FOST), SUPERFOST No. 3, July 2003	September 22, 2003		Site-Wide	
31.	August 6, 2003	Final Findings of Suitability for Early Transfer (FOSET), September 2003	September 30, 2003		Site-Wide	
32.	April 11, 2001	Final Decision Document for the Underground Storage Tank (UST) Parcels. Prepared by IT Corporation, April 2001. Located in the UST Closure Assessment Report, February 2001	February 20, 2001		UST Parcels	ADEM concurred on Final Closure Assessment Plan on February 20, 2001; did not send letter for DD
33.	July 28, 2005	Final Decision Document Former Washrack, Building 1740, Soldier's Chapel Parcel 127(7). Prepared by Shaw Environmental, July 2005	April 29, 2005		Washrack, Building 1740, Soldier's Chapel Parcel 127(7)	ADEM concurred with the Final SI on April 29, 2005; did not send letter for DD
34.	July 5, 2007	Final Finding of Suitability to Transfer (FOST), Water Tank Sites, November 2007.	July 26, 2007		Water Tank Sites	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
35.	September 7, 2010	Draft Final Engineering Evaluation and Cost Analysis (EE/CA) Action Memorandum for Bravo Munitions Response Site MRS-9	February 23, 2011		MRS-9	
36.	February 26, 2008	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-3. Prepared by Matrix Environmental Services, LLC, February 2008	April 16, 2008		MRS-3	
37.	June 16, 2008	Draft Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-6. Prepared by Matrix Environmental Services, LLC, June 2008	November 21, 2008		MRS-6	
38.	February 9, 2010	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-8. Prepared by Matrix Environmental Services, LLC, February 2010	May 20, 2010		MRS-8	
39.	February 9, 2010	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-4. Prepared by Matrix Environmental Services, LLC, February 2010	May 20, 2010		MRS-4	
40.	October 12, 2010	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-12 & 13. Prepared by Matrix Environmental Services, LLC, October 2010	February 23, 2011		MRS-12 MRS-13	
41.	October 5, 2009	Final Groundwater Sampling Report, June 2006 and Request for Land Use Controls for Former Base Service Station, Building 2109, Parcels 21(7) and 22(7)	November 5, 2009; October 12, 2011	May 13, 2011; October 11, 2011	Former Base Service Station, Building 2109, Parcels 21(7) and 22(7)	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
42.	March 12, 2007	Final Corrective Measures Implementation Plan, Small Weapons Repair Shop, Parcel 66(7), prepared by Matrix Environmental Services, LLC, March 2007	June 24, 2011;	April 2, 2009; September 3, 2013; June 15, 2018; January 6, 2025 (pending CA modification)	Small Weapons Repair Shop, Parcel 66(7)	
43.	January 5, 2012	Final Corrective Measures Implementation Plan, Impact Area, North-Central Main Post, Parcel 132Q-X and Range 31: Weapons Demonstration Range, Parcel 89Q-X and Former Defendum Field Firing Range No. 2, Parcel 215Q, December 2011	February 13, 2014		Impact Area, North-Central Main Post, Parcel 132Q-X and Range 31, Parcels 89Q-X and 215Q	
44.	August 1, 2018	Final Site-Specific Addendum Corrective Measures Implementation Plan for Iron Mountain Road Ranges: Skeet Range, Parcel 69Q; Range 12, Parcel 70Q; Range 13, Parcel 71Q; Range 19, Parcel 75Q; ; Former Rifle Grenade Range North of Washington Ranges, Parcel 221Q-X; and Former Rifle Grenade Range at Skeet Range, Parcel 222Q-X.. Prepared by Matrix Environmental Services, LLC, August 2018	October 31, 2019 (pending CA modification)	May 6, 2019, August 21, 2019	Iron Mountain Road Ranges: Skeet Range, Parcel 69Q; Range 12, Parcel 70Q; Range 13, Parcel 71Q; Range 19, Parcel 75Q;; Rifle Grenade Range, Parcel 221Q-X; Rifle Grenade Range, Parcel 222Q-X	
45.	November 15, 2019	Site Specific Addendum Corrective Measures Implementation Plan, Soil Remediation, Range 30 Impact Area; Range 30: End-of-Cycle Test Range (Parcel 88Q), Former Rifle/Machine Gun Range (Parcel 103Q), November 2019	November 26, 2019 (pending CA modification)		Range 30 Impact Area, Parcel 88Q; Former Rifle/Machine Gun Range, Parcel 103Q	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
46.	March 11, 2002	Final Action Memorandum for Eastern Bypass with the Explanation of Significant Differences Eastern Bypass. Prepared by the US Army March 11, 2002	May 15, 2002		Eastern Bypass	ADEM commented on May 15, 2002; no concurrence letter sent
47.	October 9, 2007	Final Action Memorandum for Eastern Bypass with the Explanation of Significant Differences Withdrawal of Requirement to Post Warning Signs along the Eastern Bypass Ordnance and Explosives Site – 2, October 5, 2007	November 16, 2007		Eastern Bypass	
48.	February 8, 2010	Assessment Monitoring Program for Groundwater, McClellan Industrial Landfill (Permit No. 08-02), McClellan, Anniston, Alabama	NA		Landfill 4, Parcel 81(5)	Document was submitted in response to self-implementing requirements for solid waste facilities pursuant to ADEM Admin. Code Rule 335-13-4-27(3)(c) and, therefore, does not require a concurrence date
49.	January 9, 2002	Final Finding of Suitability to Transfer (FOST) Parks and Recreation	January 25, 2002		Site-Wide	
50.	November 9, 2012	Final Engineering Evaluation / Cost Analysis Action Memorandum Bravo Response Site MRS-5. Prepared by Matrix Environmental Services, LLC, November 2012	December 4, 2012		MRS-5	
51.	June 21, 2012	Draft Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Response Site MRS-7. Prepared by Matrix Environmental Services, LLC, May 2012	August 1, 2012		MRS-7	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
52.	January 23, 2013	Corrective Measures Implementation Plan (CMIP), Soil Remediation, McClellan Baby Bains Gap Road Ranges, Range 25, Range 26, and Ranges South of Range 25. Prepared by WRS Compass, January 16, 2013	February 13, 2014	April 30, 2013; June 3, 2013; August 9, 2013	Baby Bains Gap Road Ranges, Range 25, Range 26 and Ranges South of Range 25, Parcels 83Q, 118Q-X, 84Q-X, 224Q and 226Q	MDA submitted an addendum to change sample collection methodology
53.	July 9, 2013	Final Engineering Evaluation / Cost Analysis Report Action Memorandum Bravo Munitions Response Site MRS-10 & 11. Prepared by Matrix Environmental Services, LLC, June 2007	August 12, 2013		MRS-10 MRS-11	
54.	May 28, 2015	Corrective Measures Implementation Plan, Soil Remediation, Former Ft. McClellan – Baby Bains Gap Road Ranges, Range 23 and 25 East, Anniston, Alabama. Prepared by Envirocon, Inc., May 2015	July 23, 2019	November 16, 2015	Baby Bains Gap Road Ranges, Range 23 and 25, Parcels 79Q and 223Q	
55.	November 12, 2015	Corrective Measures Implementation Plan, Soil Remediation, Baby Bains Gap Road Ranges, Phase III, Range 18 (Parcel 74Q), Anniston, Alabama. Prepared by Northstar, November 2015	July 23, 2019	September 15, 2016	Baby Bains Gap Road Ranges, Range 18, Parcel 74Q	
56.	September 16, 2005	Final Decision Document Former Rifle/Machine Gun Ranges (Firing Line Areas), Parcels 100Q and 101Q, Prepared by Shaw Environmental, Inc., September 2005	May 17, 2005		Rifle/Machine Gun Ranges (Firing Line Areas) Parcels 100Q and 101Q	ADEM concurred with Draft-Final SI on May 17, 2005; did not send letter for the Final DD
57.	February 10, 2020	Corrective Measures Implementation Plan (CMIP) Range 29, Parcels 87Q-X, 110Q, 111Q, 239Q-X, February 2020	April 9, 2020 (pending CA modification)	March 30, 2020	Range 29, Parcels 87Q-X, 110Q, 111Q, 239Q-X	
58.	April 4, 2022	Closure Certification for the Final Cap for Butler Green Industrial Landfill, March 2022	August 30, 2022		Industrial Landfill, Parcel 175(5)	
59.	September 14, 2022	Corrective Measures Implementation Plan (CMIP) Impact Area South of Prisoner-of-War (IASPOW) Training Facility, Former Rifle/Machine Gun Ranges Parcels 100Q and 101Q, September 2022	June 26, 2024 (pending CA modification)	October 19, 2023; April 25, 2024	Impact Area South of POW Training Facility, Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q	

BIBLIOGRAPHY NUMBER	DOCUMENT RECEIVED DATE	DOCUMENT TITLE	DOCUMENT CONCURRENCE DATE	DATE(S) OF DOCUMENT REVISION(S)	AGREEMENT SITES	NOTES
60.	October 22, 2025	Site-Specific Addendum Corrective Measures Implementation Plan (CMIP) – Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q, and Training Area T-31, Parcels 184(7) and 185(7), October 2025	December 5, 2025 (pending CA modification)		Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q and T-31, Parcels 184(7) and 185(7)	Document was originally submitted as an RFI/CMIP November 2024

ALDOT: Alabama Department of Transportation
FTMC: Fort McClellan

NEPA: National Environmental Policy Act
CA: Cleanup Agreement

SI: Site Investigation

DRAFT

PART II

STANDARD AND GENERAL FACILITY CONDITIONS

II.A. EFFECT OF AGREEMENT

Issuance of this Agreement does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Agreement does not constitute a defense to any action brought under the AHWMMMA, or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health, welfare, or the environment.

II.B. SEVERABILITY

The provisions of this Agreement are severable and if any provision of this Agreement, or the application of any provision of this Agreement to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Agreement shall not be affected thereby.

II.C. DUTIES AND REQUIREMENTS

1. Duty to Comply

The MDA shall comply with all conditions of this Agreement, except to the extent and for the duration that such noncompliance is authorized by an emergency permit. Any Agreement noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of the AHWMMMA, and is grounds for enforcement action, Agreement termination, revocation and reissuance, or modification.

2. Duty to Complete Post-Closure Care and Corrective Action

- a. The MDA shall complete corrective action as required by ADEM Admin. Code Rule 335-14-5-.06(12).
- b. The MDA shall fulfill the 30-year post-closure care period required by ADEM Admin. Code Rule 335-14-5-.07(8)(a)1. The Department may shorten or extend the post-closure care period applicable to the hazardous waste facility in accordance with ADEM Admin. Code Rules 335-14-5-.07(8)(a)2. and 335-14-8-.03(1)(b).

3. Need to Halt or Reduce Activity Not A Defense

It shall not be a defense for the MDA in an enforcement action that it would have been necessary to halt or reduce the activities required hereunder in order to maintain compliance with the conditions of this Agreement.

4. Duty to Mitigate

In the event of noncompliance with this Agreement, the MDA shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

5. Proper Operation and Maintenance

The MDA shall, at all times, properly operate and maintain all facilities and systems of treatment, monitoring, and control (and related appurtenances) which are installed or used by the MDA to achieve compliance with the conditions of this Agreement. Proper operation and maintenance (O&M) includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Agreement.

6. Agreement Actions

This Agreement may be modified, revoked and reissued, or terminated for cause as specified in ADEM Admin. Code Rules 335-14-8-.04(2), 335-14-8-.04(3) and 335-14-8-.04(4). The filing of a request for an Agreement modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the MDA does not stay any Agreement condition.

7. Property Rights

Execution of this Agreement does not convey any property rights of any sort, nor any exclusive privilege.

8. Duty to Provide Information

The MDA shall furnish to the Department, within a reasonable time as determined by the Department, any relevant information under the control of the MDA which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Agreement, or to determine compliance with this Agreement. The MDA shall also furnish to the Department, upon request, copies of records required to be kept by this Agreement.

9. Inspection and Entry

The MDA shall allow duly designated officers and employees of the Department, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter at reasonable times upon the MDA's and/or the Facility's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Agreement;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Agreement;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Agreement; and,
 - d. Sample or monitor, at reasonable times, for the purposes of assuring Agreement compliance or as otherwise authorized by the AHWMMA, any substances or parameters at any location. The MDA shall have the opportunity to split samples during sampling.
10. Monitoring and Records
- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from ADEM Admin. Code Rule 335-14-2-Appendix I or an alternative method specifically approved by the Department for the applicable activity. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846 (latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Standard Methods for the Examination of Water and Wastewater (latest edition), or an alternative method specifically approved by the Department for the applicable activity. [ADEM Admin. Code Rule 335-14-8-.03(1)(j)1.]
 - b. The MDA shall maintain at the Facility or at its contractor's local office located at or in close proximity to McClellan, records of all monitoring information, including all calibration and maintenance records, records of all data used to prepare documents required by this Agreement, copies of all reports required by this Agreement, and records of all data used to complete the application for this Agreement for a period of at least three (3) years from the date of the sample, measurement, report or record, or until corrective action is completed, whichever date is later. This period may be extended by the Department at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. [ADEM Admin. Code Rules 335-14-5-.05(5)(b) and 335-14-8-.03(1)(j)2.]
 - c. The MDA shall maintain at the facility or at its contractor's office located at or in close proximity to McClellan, records for all groundwater monitoring wells and piezometers and associated groundwater surface elevations throughout the Agreement period and throughout any associated post-closure care period(s) established by future Corrective Action activities completed under this Agreement. These records shall include the surveyed location, surveyed elevation, surveyed elevation

reference point, total depth, screened interval, construction details, well log, and all other pertinent information for each well and piezometer.

- d. Records of monitoring information shall include:
 - i. The dates, exact place, and times of sampling or measurements;
 - ii. The individuals who performed the sampling or measurements;
 - iii. The dates in which analyses were performed;
 - iv. The individuals who performed the analyses;
 - v. The analytical techniques or methods used; and,
 - vi. The results of such analyses.
- e. The following documents and information shall be maintained throughout the term of this or subsequent Agreement(s) and any post-closure care period at the Facility or the MDA's contractor office located at or in close proximity to McClellan.
 - i. Complete copy of this Agreement.
 - ii. Operating record as required by ADEM Admin. Code Rule 335-14-5-.05(4) and this Agreement.
 - iii. Copies of all plans, reports, inspection schedules, inspection logs as required by ADEM Admin. Code Rule 335-14-5 and this Agreement.

11. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with ADEM Admin. Code Rules 335-14-8-.02(2) and 335-14-8-.03(1)(k).

12. Reporting Requirements

a. Planned Changes

The MDA shall give notice to the Department as soon as possible of any planned physical alterations or additions to the facility for any areas subject to the investigation, remediation, monitoring and/or remedy operation and maintenance requirements identified under this Agreement.

b. Anticipated Noncompliance

The MDA shall give advance notice to the Department of any planned changes in the facility or activity that may result in noncompliance with

Agreement requirements.

c. Transfer of Agreements

This Agreement may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to ADEM Admin. Code Rule 335-14-8-.04(1) or ADEM Admin. Code Rule 335-14-8-.04(3)(a)1.(vii). Before transferring ownership or operation of the facility during a post-closure period, the MDA shall notify the new owner or operator, in writing, of the requirements of ADEM Admin. Code Rules 335-14-5 and 335-14-8 and this Agreement.

d. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this Agreement.

e. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Agreement shall be submitted to the Department no later than 14 calendar days following each schedule date.

f. Twenty-four Hour Reporting

i. The MDA shall report to the Department any noncompliance with this Agreement that may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the MDA becomes aware of the circumstances. This report shall include, but is not limited to, the following:

- (I) Information concerning the release of any hazardous waste which may endanger public drinking water supplies; and,
- (II) Information concerning the release or discharge of any hazardous waste, or hazardous waste constituents, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility.

ii. The description of the occurrence and its cause shall include:

- (I) Name, address, and telephone number of the owner or operator;
- (II) Name, address, telephone number, and Environmental Protection Agency (EPA) Identification Number of the facility;

- (III) Date, time, and type of incident;
- (IV) Name and quantity of material(s) involved;
- (V) The extent of injuries, if any;
- (VI) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and,
- (VII) Estimated quantity and disposition of recovered material that resulted from the accident.

iii. A written submission shall also be provided within 5 calendar days of the time that the MDA becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

g. Other Noncompliance

The MDA shall report to the Department all instances of noncompliance not otherwise required by Agreement Conditions II.C.12.d., II.C.12.e., or II.C.12.f. at the time any other reports required by this Agreement are submitted. The reports shall contain the information required by Agreement Condition II.C.12.f.

h. Other Information

Where the MDA becomes aware that it failed to submit any relevant facts in any document required by this Agreement, or submitted incorrect information in any report to the Department, it shall promptly submit such facts or information. In addition, upon request, the MDA shall furnish to the Department any information related to compliance with this Agreement.

13. Certification of Construction

The MDA may not commence operation of a remedy to address potential treatment, storage or disposal of hazardous waste or contaminated media at any new or modified portion of the facility until the MDA has submitted to the Department, by certified mail or hand-delivery, a letter (together with the certification by the construction quality assurance (CQA) officer required by ADEM Admin. Code R. 335-14-5-.02(10)(d) and any other certifications required by this Agreement or ADEM Admin. Code Rule 335-14) signed by the MDA and a professional engineer registered in the State of Alabama stating that the facility has been constructed or modified in compliance with this Agreement where appropriate; and,

- a. The Department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of this Agreement; or
 - b. The Department has either waived the inspection or has not notified the MDA, within 15 calendar days of the notification from the Facility, of its intent to inspect. [ADEM Admin. Code Rule 335-14-8-.03(1)(1)2.]
14. The MDA shall assure that all measures necessary to maintain and/or achieve compliance with all applicable requirements of ADEM Admin. Code Rules 335-14 are taken during the term of this Agreement, during the corrective action period, and throughout any post-closure care period, including the long-term monitoring period for operation of a remedy system, or during the institutional control maintenance period, whichever is longer.
15. In the event that circumstances beyond the MDA's control arise to prevent achievement of any deadline set forth by this Agreement, the MDA may immediately, upon the occurrence thereof, request an extension by sending a written request to the Department explaining the need for the extension. The Department may, after consideration of the circumstances, grant the extension. Requests for extensions may require an Agreement modification pursuant to ADEM Admin. Code Rule 335-14-8-.04(2).

II.D. [RESERVED]

II.E. DEFINITIONS

For purposes of this Agreement, terms used herein shall have the same meaning as those in ADEM Admin. Code Rules 335-14-1, 335-14-2, 335-14-5, and 335-14-8, unless this Agreement specifically provides otherwise. Where terms are not defined in the regulations or this Agreement, a standard dictionary reference or the generally accepted scientific or industrial meaning of the term shall define the meaning associated with such terms.

"Area of concern" (AOC), for the purposes of this Agreement, includes any area having a probable release of a hazardous waste or hazardous constituent that is not from a SWMU and is determined by the Department to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under Section 3005(c)(3) of the RCRA and ADEM Admin. Code Rule 335-14-8-.03(3)(b)2. in order to ensure adequate protection of human health and the environment.

"Contamination," for the purposes of this Agreement, refers to the presence of any hazardous constituent in a concentration that exceeds the naturally occurring concentration of that constituent in the immediate vicinity of the facility (*i.e.*, areas not affected by the facility).

“Discarded Military Munitions” (DMM), for the purposes of this Agreement, refers to unfired military munitions that have been abandoned, discarded, or improperly disposed of and are still capable of firing.

"Extent of contamination," for the purposes of this Agreement, is defined as the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Department.

"Hazardous constituents," for the purposes of this Agreement, are those substances listed in ADEM Admin. Code Rule 335-14-2-Appendix VIII and/or ADEM Admin. Code Rule 335-14-5-Appendix IX and include hazardous constituents released from solid waste, hazardous waste, hazardous waste constituents that are reaction by-products. The term hazardous constituents, as used in this Agreement, specifically includes MEC and similar materials, whether present as intact munitions, or as fragments, residuals, or chemical constituents. With respect to fragments and metal pieces of MEC and similar material, the categorization of these materials as hazardous constituents is not intended to impose additional requirements on the management of materials not otherwise required to be managed as hazardous wastes (such as scrap metal), but rather to reflect the role of these components in the investigation and cleanup of areas potentially impacted by MEC and similar material.

“Land Use Controls,” (LUC) for the purposes of this Agreement, is as defined by ADEM Admin. Code R. 335-15-1-.02.

“Munitions and Explosives of Concern” (MEC) for the purposes of this Agreement, collectively refers to UXO, DMM, and residue from OE training activities, as well as various chemical constituents which were or may have been released to the environment resulting from various other activities associated with training of Army troops.

“Method detection limit” (MDL), for the purposes of this Agreement, means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

“Mixed waste,” for the purposes of this Agreement, means a solid waste that is a mixture of hazardous waste (as defined in ADEM Admin. Code Rule 335-14-2-.01(3)) and radioactive waste (as defined in 10 CFR 61.2). The radioactive component of mixed waste is subject to regulation by the Atomic Energy Act (AEA)/Nuclear Regulatory Commission (NRC). The non-radioactive chemically hazardous component of mixed waste is subject to regulation by the AHWMA and ADEM Admin. Code R. 335-14.

“Operating day,” for the purposes of this Agreement, means any day on which hazardous waste is treated, stored, or disposed of in a unit. For example, each day that a hazardous waste storage unit contains hazardous waste is an operating day; as is each day that a disposal unit contains or receives hazardous waste, or each day that hazardous waste is treated in a treatment unit.

“Ordnance and Explosives” (OE), for the purposes of this Agreement, means any munition, weapon delivery system, or ordnance item that contains explosives, propellants, and/or chemical agents.

A "release," for the purposes of this Agreement, includes any spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, pumping, or disposing into the environment of any hazardous waste or hazardous constituent.

"Solid waste management unit" (SWMU), for the purposes of this Agreement, includes any unit that has been used for the treatment, storage or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. RCRA-regulated hazardous waste management units are also solid waste management units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (*e.g.*, product or process spills).

“Storm event,” for the purposes of this Agreement, is defined as a 1-year, 24-hour storm event or rainfall which measures 1 inch or greater in 1 hour or less. Rainfall measurements may be taken at the site, or the closest official weather monitoring station may be used.

“Unexploded Ordnance” (UXO) for the purposes of this Agreement, means military munitions that have been primed, fuzed, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

II.F. EXPIRATION AND CONTINUATION OF AGREEMENT

This Agreement and all conditions herein will remain in effect until all obligations contained herein have been fulfilled, as determined in writing by the Department.

II.G. WASTE MINIMIZATION

1. Certification Requirements

Pursuant to ADEM Admin. Code Rule 335-14-5-.05(4)(b)9. The MDA must certify, no less often than annually, that:

- a. The MDA has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the MDA to be economically practicable; and,
- b. The proposed method of treatment, storage or disposal is the most practicable method available to the MDA which minimizes the present and future threat to human health and the environment.

2. Recording Requirements

If Agreement Condition II.G. is applicable, then the MDA shall maintain copies of this certification in the facility operating record as required by ADEM Admin. Code Rule 335-14-5-.05(4).

II.H. COST ESTIMATES

1. The MDA shall maintain detailed written cost estimates, in current dollars, at the location specified in Agreement Condition II.C.10.e. and on file with ADEM in accordance with ADEM Admin. Code Rules 335-14-5-.08(3), (5), and (10). For those activities covered by the ESCA between the MDA and the Army, the Parties anticipate that the cost data and estimates prepared by the MDA pursuant to the requirements of the ESCA will fulfill this requirement, subject to the review and approval of the Department.
2. All cost estimates must be updated annually as required by ADEM Admin. Code Rules 335-14-5-.08(3)(b), (5)(b), and (10)(b).
3. The cost estimate shall be maintained and submitted in the form designated or otherwise approved by the Department.
4. The MDA must update the cost estimate no later than 30 calendar days after the Department has approved a modification to the Closure Plan, Post-Closure Plan, Corrective Action Plan, or any other plan required or referenced by this Agreement, if the change in the plan results in an increase of the cost estimate amount.

II.I. FINANCIAL ASSURANCE

1. The MDA shall demonstrate continuous compliance with ADEM Admin. Code Rule 335-14-5-.08 by providing documentation of financial assurance in at least the amount that equals or exceeds the cost estimate. For those activities covered by the ESCA between the MDA and the Army, the Parties agree that (i) a fully executed copy of the ESCA, (ii) copies of the environmental insurance policies (“Insurance Policies”) covering the Facility, or portions thereof, and (iii) annual certifications from the MDA that the ESCA and Insurance Policies are in full force and effect, will fulfill this requirement. Changes in financial assurance mechanisms must be approved by the Department.
2. The MDA shall submit itemized statements for all capital expenditures and a complete, revised cost estimate to the Department when requesting approval for a reduction in the financial assurance mechanism.

II.J. AGREEMENT MODIFICATIONS

The MDA shall request an Agreement modification whenever changes in operating plans or facility design affect any plan (*e.g.*, closure, groundwater monitoring, post-closure, or

corrective action) required or referenced by this Agreement. The MDA must submit a written request for an Agreement modification pursuant to the requirements of ADEM Admin. Code Rule 335-14-8-.04(2). at least 60 calendar days prior to the proposed change in facility design or operation.

II.K. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications, or other submissions that are required by this Agreement should be sent via certified mail or given to:

Chief, Land Division
Alabama Department of Environmental Management
P.O. Box 301463 (Zip 36130-1463)
1400 Coliseum Boulevard (Zip 36110-2400)
Montgomery, Alabama

II.L. FORCE MAJEURE

1. The MDA shall perform the requirements of this Agreement within the schedules and time limits set forth herein and in any approved plan unless the performance is prevented or delayed by events which constitute a force majeure. A force majeure is defined as any event arising from causes which are not reasonably foreseeable, which are beyond the control of the MDA, and which cannot be overcome by due diligence.
2. Within 72 hours of the time that the MDA knows or has reason to know of the occurrence of any event which the MDA has reason to believe may prevent the MDA from timely compliance with any requirement under this Agreement, the MDA shall provide verbal notification to the Department. Within 7 calendar days of the time that the MDA knows or has reason to know of the occurrence of such event, the MDA shall submit to the Department a written description of the event causing the delay, and actions which will be taken to mitigate the duration of the delay.
3. The burden of proving that any delay was caused by a force majeure shall, at all times, rest with the MDA. If the Department agrees that a force majeure has occurred, the Department will so notify the MDA. The Department will also approve or disapprove of the MDA's proposed actions for mitigating the delay. If the Department does not agree that a force majeure has occurred, or if the Department disapproves of the MDA's proposed actions for mitigating the delay, it shall provide a written explanation of its determination to the MDA. Pursuant to the Dispute Resolution section, within fifteen (15) calendar days of receipt of the explanation, the MDA may file an objection.
4. Delay in the achievement of one requirement shall not necessarily justify or excuse delay in the achievement of subsequent requirements. In the event any performance under this Agreement is found to have been delayed by a force majeure, the MDA shall perform the requirements of this Agreement that were delayed by the force majeure with all due diligence.

PART III

IDENTIFICATION AND EVALUATION REQUIREMENTS

III.A. APPLICABILITY

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs that include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

The Conditions of this Part apply to:

1. The parcels, sites, SWMUs and AOCs identified in Table III.1., which require investigation and/or remediation;
2. The parcels, sites, SWMUs and AOCs identified in Table III.2., which require no further action under this Agreement at this time;
3. Any additional parcels, sites, SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; and,
4. Contamination beyond the facility boundary, if applicable. The MDA shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the MDA demonstrates to the satisfaction of the Department that, despite the MDA's best efforts, as determined by the Department, the MDA was unable to obtain the necessary permission to undertake such actions. The MDA is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required, as described in Condition II.I. of this Agreement.
5. The MDA shall, in conjunction with ADEM, evaluate the need to undertake corrective action for the areas listed in Tables III.1. and IV.1. The corrective action process followed by the MDA at the Facility for each area will be conducted with the goal of evaluating and determining how to best meet the requirements of ADEM Administrative Code R. 335-14. Table IV.1. lists the corrective action requirements applicable to each Parcel pursuant to this Agreement. Not all steps in the corrective action process described below will be necessary for each site, depending on what phases have already been completed by the Army prior to transfer. Documents submitted to ADEM under this Cleanup Agreement may use both RCRA and CERCLA terminology and titles in order to satisfy the requirements of ADEM under RCRA (AHWMMMA) and the Army under CERCLA and the NCP. In some instances, the Army may have already prepared an Engineering Evaluation/Cost Analysis (EE/CA) that has been approved by ADEM. In such instances, it is expected that the EE/CA shall fulfill the requirements of the RCRA Facility Investigation (RFI) as described in Condition III.D. of this Agreement.

III.B. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

1. The MDA shall notify the Department in writing, within 15 calendar days of discovery, of any additional parcels, sites, or AOCs as described under Agreement Condition III.A.3. The notification shall include, at a minimum, the location of the parcel, site, or AOC and all available information pertaining to the nature of the release (*e.g.*, media affected, hazardous constituents released, magnitude of release, etc.). If the Department determines that further investigation of a parcel, site, or AOC is required, the Agreement will be modified in accordance with ADEM Admin. Code Rule 335-14-8-.04(2).
2. The MDA shall notify the Department in writing, within 15 calendar days of discovery, of any additional SWMUs as described under Agreement Condition III.A.3.
3. The notification for new parcels, sites, AOCs and SWMUs, as provided in Conditions III.B.1. and III.B.2. of this Agreement shall contain an assessment as to whether the new condition is the responsibility of the MDA or the Army under the ESCA or applicable law. If the Army disagrees with this assessment, the MDA will initiate required actions under the ESCA to resolve this disagreement and the provisions of Condition I.C.2. of this Agreement shall be applicable thereto.
4. The MDA shall prepare and submit to the Department, within 90 calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Agreement Condition III.B.2. At a minimum, the SAR shall provide the following information:
 - a. Location of unit(s) on a topographic map of appropriate scale such as required under ADEM Admin. Code Rule 335-14-8-.02(5)(b)19.
 - b. Designation of type and function of unit(s).
 - c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
 - d. Dates that the unit(s) was operated.
 - e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
 - f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).
5. Based on the results of the SAR, the Department shall determine the need for further investigations at the SWMUs covered in the SAR. If the Department determines that such investigations are needed, the MDA shall initiate an investigation as outlined in Agreement Condition III.D.1. immediately upon receiving notification of the Department's determination.

III.C. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED PARCELS, SITES, SWMUs or AOCs

1. The MDA shall notify the Department in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within 15 calendar days of discovery. Such newly discovered releases may be from the Parcels, Sites, SWMUs or AOCs identified in Agreement Condition III.A.3. or from Parcels, Sites, SWMUs or AOCs identified in Agreement Condition III.A.2. for which further investigation was not required.
2. If the Department determines that further investigation of the Parcels, Sites, SWMUs or AOCs described in Agreement Condition III.C.1. is needed, the MDA shall initiate an investigation as outlined in Agreement Condition III.D.1. immediately upon receiving notification of the Department's determination.
3. The notification for new releases as provided in Conditions III.C.1. and III.C.2. of this Agreement shall contain an assessment as to whether the new condition is the responsibility of the MDA or the Army under the ESCA or applicable law. If the Army disagrees with this assessment, the MDA will initiate required actions under the ESCA to resolve this disagreement and the provisions of Condition I.C.2. of this Agreement shall be applicable thereto.

III.D. RCRA FACILITY INVESTIGATION (RFI)

1. The MDA must perform an RFI for any Parcel, Site, SWMU or AOC identified by the Department in accordance with Agreement Conditions III.A.1., III.B.4., and III.C.2. Where existing CERCLA Remedial Investigation (RI) reports or EE/CAs have been previously approved by the Department for the Parcels, Sites, SWMUs or AOCs named in this Agreement, those RI reports shall fulfill the requirements of this paragraph. Where existing CERCLA RI reports or EE/CAs have been previously prepared by the Army and submitted to the Department for the Parcels, Sites, SWMUs or AOCs named in this Agreement, but have not yet been approved by the Department, those RI reports shall fulfill the requirements for submittal of this paragraph, but are subject to the content requirements described herein. Where existing RI reports are under preparation at the time this Cleanup Agreement becomes effective, the RI report shall be finalized by the MDA and named "RI/RFI" to fulfill the requirements of both RCRA and CERCLA.
2. The RFI must fully characterize the nature and extent of contamination released from each SWMU or AOC under investigation.
3. The RFI must be performed in a manner consistent with the most recent edition of the Alabama Environmental Investigation and Remediation Guidance (AEIRG).
4. Except as provided by Agreement Condition III.D.6., the RFI must be completed within 180 days from the effective date of this Agreement; or, for Parcels, Sites, SWMUs or AOCs identified pursuant to Agreement Conditions III.B. and III.C., within 180 calendar days from the receipt of notification from the Department that an RFI is required. If, prior to the effective date of this Agreement, the Department has approved a work plan

that includes a schedule for completing the RFI, the RFI shall be completed in accordance with the approved schedule.

5. RFI Schedule of Compliance.

- a. For RFIs expected to require greater than 180 days to complete, the MDA may submit a schedule of compliance subject to Departmental approval/modification.
- b. Submittal of an RFI Schedule of Compliance does not delay or otherwise postpone the MDA's obligation to initiate the RFI.
- c. The Schedule of Compliance must include:
 - i. A detailed narrative discussion which explains why the RFI cannot be completed within 180 days; and,
 - ii. A detailed and chronological listing of milestones, with estimated durations, which provides sufficient information to track the progress of the investigation.
- d. The RFI Schedule of Compliance shall be reviewed by the Department in accordance with Agreement Condition III.G.
- e. The MDA shall complete the RFI in accordance with approved RFI Schedule of Compliance.

6. RFI Progress Reports

- a. For an RFI being conducted in accordance with an approved RFI Schedule of Compliance, the MDA must submit progress reports on a quarterly basis.
- b. The RFI Progress Reports must include:
 - i. A description of the RFI activities completed during the reporting period;
 - ii. Summaries of any problems or potential problems encountered during the reporting period;
 - iii. Actions taken to rectify problems;
 - iv. Changes in relevant personnel;
 - v. Projected work for the next reporting period;
 - vi. Any proposed revisions to the RFI Schedule of Compliance. Modifications of the RFI Schedule of Compliance are subject to approval by the Department; and,
 - vii. A summary of any data collected during the reporting period, including:
 - a. The location of each sampling point identified on a site map.

- b. The concentration of each hazardous constituent detected at each sampling point.
 - c. Submittal of RFI Progress Reports, work plans, or other documents during the RFI does not alter the approved RFI Schedule of Compliance.
- 7. RFI Reports
 - a. The MDA shall prepare and submit to the Department an RFI Report within 90 calendar days from the completion of investigation activities, or in accordance with the approved RFI Schedule of Compliance, if applicable.
 - b. The RFI Report must provide a detailed description of all required elements of the investigation as described in the most recent edition of the AEIRG.
 - c. The RFI Report shall be reviewed by the Department in accordance with Agreement Condition III.G.

III.E. SELECTION OF CORRECTIVE MEASURES AND AGREEMENT MODIFICATION

- 1. The MDA shall develop and submit to the Department a Corrective Measures Implementation (CMI) Plan for any areas of the Facility where hazardous constituents have come to be located at concentrations exceeding those appropriate for the protection of human health and the environment. The CMI Plan must include all applicable elements of the proposed remedy pursuant to the most recent edition of the AEIRG.
- 2. The CMI Plan shall be submitted within 180 calendar days following the submittal of an RFI Report indicating that hazardous constituents have come to be located at any area of the facility, or beyond the facility, at concentrations exceeding those appropriate for the protection of human health and the environment, or that a remedy is otherwise necessary to protect human health and the environment; or within 180 calendar days following submittal of a final feasibility study/Corrective Measures Study (CMS) if required by the Army or the MDA; or within 180 calendar days following notification from the Department that a CMI Plan is required, whichever occurs earlier.
- 3. The CMI Plan shall be submitted along with a request for Agreement modification pursuant to ADEM Admin. Code R. 335-14-8-.04(2), and shall include any applicable fees pursuant to ADEM Admin. Code R. 335-1-6. This modification will serve to incorporate the proposed final remedy, including all procedures necessary to implement and monitor the remedy, into this Agreement.
- 4. Within 120 calendar days after this Agreement has been modified in accordance with Agreement Condition III.E.3., the MDA shall demonstrate financial assurance for completing the approved remedy.

III.F. INTERIM MEASURES (IM)

1. IM Work Plan(s)

- a. Upon notification by the Department, the MDA shall prepare and submit an IM Work Plan for any Parcels, Sites, SWMUs or AOCs that the Department determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective measures are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within 30 calendar days of such notification and shall include the elements listed in Agreement Condition III.F.1.b. Such IM may be conducted concurrently with investigations required under the terms of this Agreement. The MDA may initiate IM by submitting an IM Work Plan for approval and reporting in accordance with the requirements under Agreement Condition III.F.
- b. The IM Work Plan shall ensure that the IM are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the IM objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
- c. The IM Work Plan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan.
- d. The IM Report shall be reviewed by the Department in accordance with Agreement Condition III.G.

2. IM Implementation

- a. The MDA shall implement the IM in accordance with the approved IM Work Plan.
- b. The MDA shall give notice to the Department as soon as possible of any planned changes, reductions or additions to the IM Work Plan.
- c. Final approval of corrective action required under ADEM Admin. Code Rule 335-14-5-.06(12), which is achieved through IM, shall be in accordance with ADEM Admin. Code Rule 335-14-8-.04(2) and Agreement Condition III.E.

3. IM Reports

- a. If the time required for completion of IM is greater than one year, the MDA shall provide the Department with Progress Reports at intervals specified in the approved work plan. The Progress Reports shall, at a minimum, contain the following information:
 - i. A description of the portion of the IM completed;

- ii. Summaries of any deviations from the IM Work Plan during the reporting period;
 - iii. Summaries of any problems or potential problems encountered during the reporting period;
 - iv. Projected work for the next reporting period; and,
 - v. Copies of laboratory/monitoring data.
- b. The MDA shall prepare and submit the IM Report to the Department, within 90 calendar days of completion of IM conducted under Agreement Condition III.F. The IM Report shall, at a minimum, contain the following information:
- i. A description of IM implemented;
 - ii. Summaries of results;
 - iii. Summaries of all problems encountered;
 - iv. Summaries of accomplishments and/or effectiveness of IM; and,
 - v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Agreement Condition II.C.10.

III.G. SUBMITTALS

1. All work plans, reports, schedules, and other documents ("Submittals") required by this Part shall be subject to approval by the Department to assure that such submittals and schedules are consistent with the requirements of this Agreement and with applicable regulations and guidance. The MDA shall revise all Submittals and schedules as directed by the Department.
2. The Department will review all Submittals in accordance with the conditions of this Agreement. The Department will notify the MDA in writing of any Submittal that is disapproved, and the basis therefore. If the Department disapproves a Submittal, the Department shall (1) notify the MDA in writing of the Submittal's deficiencies and specify a due date for submission of a revised Submittal, (2) revise the Submittal and notify the MDA of the revisions, or (3) conditionally approve the Submittal and notify the MDA of the conditions. If the Department imposes revisions as described in item (2), the Department shall describe the required revisions in writing to the MDA. This description shall be considered a supplement to the subject Submittal. Agreement Condition I.F. shall apply only to Submittals that have been disapproved and revised by the Department, or that have been disapproved by the Department, then revised and resubmitted by the MDA, and again disapproved by the Department.
3. All Submittals shall be submitted within the time frame specified by the Department and in accordance with the approved schedule of compliance. Extensions of the due date for Submittals may be granted by the Department based on the MDA's demonstration that

sufficient justification for the extension exists, which justification may include Force Majeure as described herein.

4. All Submittals required by this Part shall be signed and certified in accordance with ADEM Admin. Code Rule 335-14-8-.02(2).
5. Two (2) copies of all Submittals shall be provided by the MDA to the Department in accordance with Agreement Condition II.K.

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Table III.1.

The following table presents a list of the Parcels, Sites, SWMUs and/or AOCs requiring an RFI, RI, or EE/CA Finalization. Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by Environmental Science & Engineering, Inc. (ESE). Where discrepancies exist, the Agreement will take precedence.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs that include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

List of Parcels, Sites, SWMUs and/or AOCs Requiring an RFI:

CERFA PARCEL#	SITE DESCRIPTION	STATUS	RESPONSIBLE PARTY	UNRESOLVED ISSUES
180(7)	Training Area T-5: Former Detection & ID Area	RFI	MDA	<ul style="list-style-type: none"> • HTRW • Soil and Groundwater Trichloroethylene (TCE) contamination in soil and groundwater at the T-5 sites results from decontamination training activities performed on the various individual parcels. MDA to complete characterization and remediation.
182(7)	Training Area T-5: Former Toxic Hazards Detection/Decontamination			
511(7)	Training Area T-5: Blacktop Training Area			
512(7)	Training Area T-5: Fenced Yard in Blacktop Area			
513(7)	Training Area T-5: Dog Training Area			
514(7)	Training Area T-5: Old Burn Pit			
516(7)	Training Area T-5: Dog Kennel Area			
72Q-X	Range 16: Grenade Launcher Range/Dud Impact Area	RFI	MDA	<ul style="list-style-type: none"> • HTRW No characterization performed. Following MEC remediation, MDA will perform HTRW investigation and remediation.
150Q	Range 16: Former Rifle Range			

CERFA PARCEL#	SITE DESCRIPTION	STATUS	RESPONSIBLE PARTY	UNRESOLVED ISSUES
130Q-X	Mock Village, located at present Yahou Lake	RFI	MDA	<ul style="list-style-type: none"> • HTRW • Groundwater <p>MDA to complete characterization and remediation of solvent contamination in groundwater.</p> <p>Mock Village at Yahou Lake falls within MRS-11, a MEC site.</p>
114Q-X	Former Large Caliber Range	RFI	MDA	<ul style="list-style-type: none"> • HTRW • Soil and Groundwater <p>MDA to complete characterization and remediation of contamination in soil and groundwater.</p> <p>Large Caliber Weapons Range falls within portions of MEC sites MRS-3 and 6.</p>
NA	Area North of MOUT Site	RFI	MDA	<ul style="list-style-type: none"> • HTRW • Soil and Groundwater <p>A site visit revealed features that suggest this area was used for training maneuvers with live fire. Bullet fragments were visible on the ground surface within two ground scars. Groundwater contamination was identified but has not been characterized.</p> <p>Area North of MOUT Site falls within the Alpha MEC area.</p>

CERFA: Community Environmental Response Facilitation Act
SI: Site Investigation
MOUT: Military Operations in Urban Terrain

UST: Underground Storage Tank
NA: Not Applicable

Table III.2.

The following table presents a list of the Parcels, Sites, SWMUs and/or AOCs requiring no further action at this time. Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by ESE. Where discrepancies exist, the Agreement will take precedence.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs that include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

List of Parcels, Sites, SWMUs and/or AOCs Requiring No Further Action (NFA) At This Time:

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
NA	All McClellan property transferred to the MDA (See Table I.1 for complete listing)	CWM	Various	10/7/2002	X		NFA for CWM was obtained by the Army in the CWM Action Memorandum.
127(7)	Soldier's Chapel, Bldg 1740 (Washrack)	HTRW	Groundwater	7/8/2008		X	IV.C.2.C.
21(7)	Base Service Station: Bldg 2109	HTRW	Groundwater	11/5/2009; 10/12/2011	X		NA
22(7)	Base Service Station: UST, Bldg 2109						
Alpha Area	Portions of M5-1L-(North) PR, M6-1L Remainder – I/AR, M6-1M Remainder – PR, M6-1, Remainder – I/AR and Smoke Ranges R and S/T-38 - PR	MEC	NA	10/4/2005	X		NA
GT/Y	Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass Y Area Junction	MEC	NA	6/28/2007 (Y Area) 5/18/2005 (Golden Triangle)		X	IV.C.2.E.

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
92Q-X	Former Tank Range	HTRW	None	5/2/2012	X		NA
93Q-X	Former Tank Range						
107Q-X	Former Grenade Range						
88Q	Range 30: Firing Line	HTRW	None	10/23/2007	X		NA
188(7)	Old Toxic Training Area	HTRW	None	9/29/2003	X		NA
68Q	Iron Mountain	HTRW	None	3/1/2000	X		NA
155(4)	Ground Scar w/pit, N. of Landfill #3	HTRW	None	7/16/2004	X		NA
132(7)	Former Gas Station, Bldg 1594, Motor Pool Area 1500. Bldg removed.	HTRW	None	6/8/2005	X		NA
93(7)	Former Decontamination Complex - Bldg. 1271, Chemical Laundry, Area 1200 Motor Pool	HTRW	None	4/5/2005	X		NA
140(4)	Former Gas Station @ Area 1200 Motor Pool, Bldg 1294	HTRW	None	4/5/2005	X		NA
133(7)	Former Gas Station @ Area 14, Bldg 1494, at Old Chemical Laundry. Bldg removed.	HTRW	None	6/8/2005	X		NA
134(7)	Former Gas Station @ Area 15, Bldg 1594A. Bldg removed.	HTRW	None	6/8/2005	X		NA
105(3)	Former Smoke Area R	HTRW	None	2/27/2001	X		NA
106(3)	Former Smoke Area S	HTRW	None	4/4/2001	X		NA
2(4)	UST @ GSA Motor Pool, Bldg 238	HTRW	None	9/22/2003		X	IV.C.2.F.
3(4)	UST @ Telephone Exchange, Bldg 251	HTRW	None	9/22/2003		X	IV.C.2.F.
4(4)	POL point, Bldg 265	HTRW	None	9/22/2003		X	IV.C.2.F.
67(4)	Former Battery Maintenance Area, Bldg 234	HTRW	None	9/22/2003		X	IV.C.2.F.

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
69(4)	Washrack, Bldg 253	HTRW	None	9/22/2003		X	IV.C.2.F.
91(4)	Former Dry Cleaning Area, Bldg T-233	HTRW	None	9/22/2003		X	IV.C.2.F.
111(4)	Former Multi Craft Shop, Bldg 245	HTRW	None	9/22/2003		X	IV.C.2.F.
128(4)	Former Washrack @ Nielsen St.	HTRW	None	9/22/2003		X	IV.C.2.F.
129(4)	Washrack, near Bldg T-222	HTRW	None	9/22/2003		X	IV.C.2.F.
151(4)	GSA Warehouse Area	HTRW	None	9/22/2003		X	IV.C.2.F.
238(4)	UST @ Former Gas Station, near Bldg 234	HTRW	None	9/22/2003		X	IV.C.2.F.
231(7)	Probable Fill Area at Range 30	HTRW	None	2/23/2006	X		NA
122(3)	Former Fog Oil Storage Area W. of Skeet Range	HTRW	None	4/13/2001	X		NA
177(3)	AST @ Range 16	HTRW	None	11/6/2000	X		NA
104Q	Former Rifle/Machine Gun Range	HTRW	None	7/21/2005	X		NA
133Q-X	Impact area, North Central Main Post	HTRW	None	5/2/2012	X		NA
17(4)	UST @ Bldg 1696 Motor Pool	HTRW	None	4/13/2001	X		NA
18(3)	UST @ Bldg 1697 Motor Pool	HTRW	None	4/13/2001	X		NA
19(3)	UST @ Bldg 1694 Motor Pool	HTRW	None	4/13/2001	X		NA
43(3)	UST @ Bldg 796 (Bldg demolished)	HTRW	None	2/20/2001	X		NA
500(3)	Trenches W. of Iron Mountain Road	HTRW	None	11/13/2001	X		NA
71(3)	Washrack, Bldg 1643, Motor Pool Area 1600	HTRW	None	4/13/2001	X		NA
163(3)	Motor Pool Area 1600	HTRW	None	4/13/2001	X		NA
503(3)	Motor Pool Area 1600	HTRW	None	4/13/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
504(3)	Motor Pool Area 1600	HTRW	None	4/13/2001	X		NA
124(3)	Former Smoke Range Battle Visualization Zone (BVZ)	HTRW	None	4/13/2001	X		NA
95(3)	Old Hospital	HTRW	None	11/6/2000	X		NA
157(3)	Ground Scar South of Autoshop	HTRW	None	2/4/2002	X		NA
234(1)	Trenches at Range 19	HTRW	None	10/11/2002	X		NA
218Q-X	UXO point	HTRW	None	7/17/2000	X		NA
22Q	Transformer at Bldg. 141C	HTRW	None	7/17/2000	X		NA
23Q	Transformer at Bldg. 162	HTRW	None	7/17/2000	X		NA
63Q	Radiological Facility, Bldg. T- 812 1/2	HTRW	None	7/17/2000	X		NA
98(1)	Current Hazardous Storage Facility, Bldg 348	HTRW	None	7/17/2000	X		NA
193(3)	Reported CWM Spill/Burial Site, CWM Spill South 23rd Street	HTRW	None	7/17/2000	X		NA
66Q	Radiological Facilities, Bldgs. 3180, 3182, 3192, and alpha/bromine fields	HTRW	None	7/17/2000	X		NA
501(3)	Bldgs South of Reilly Airfield	HTRW	None	12/1/2000	X		NA
7(3)	UST @ Consolidated Maint, Bldg 350	HTRW	None	10/12/2000	X		NA
77(3)	Former Fire Trng Pit, Bldg 350	HTRW	None	10/12/2000	X		NA
170(3)	Consolidated Main Facility, Bldg 351 Washrack	HTRW	None	10/12/2000	X		NA
76(1)	Consolidated Maintenance Facility, Bldg 350/351	HTRW	None	12/1/2000	X		NA
83(3)	Bldg. S-2252 Golf Course Pesticide/Mix Storage Facility	HTRW	None	8/15/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
139(3)	Former Gas Station @ Motor Pool Area 1000, Bldg 1094 (Truman Gym)	HTRW	None	4/15/2001	X		NA
141(3)	Former Pesticide Storage & Mixing, Bldg T-2249	HTRW	None	8/15/2001	X		NA
150(3)	Motor Pool Area 1000, Bldg. 1012 (Truman Gym)	HTRW	None	4/15/2001	X		NA
147(3)	Vehicle Maintenance Shop, Motor Pool Area 3100 (S. of 23rd Street)	HTRW	None	3/16/2001	X		NA
1(3)	UST @ Bldg. 215	HTRW	None	2/20/2001	X		NA
9(3)	UST @ Recreation Bldg, Bldg 503	HTRW	None	2/20/2001	X		NA
11(4)	UST @ Bldg 888 Motor Pool	HTRW	None	4/13/2001	X		NA
12(4)	UST @ Bldg 894 Motor Pool	HTRW	None	4/13/2001	X		NA
15(3)	USTs @ Former WAC Museum	HTRW	None	2/20/2001	X		NA
29(3)	Bldg 3294/3299, 11th Chemical Motor Pool Area	HTRW	None	10/31/2001	X		NA
30(4)	UST @ Bldg 3298, 11th Chemical Motor Pool Area	HTRW	None	10/31/2001	X		NA
31(4)	UST @ ASP at Bldg 4407	HTRW	None	2/20/2001	X		NA
33(3)	UST @ Bldg S-55 (Buckner Circle)	HTRW	None	2/20/2001	X		NA
36(3)	UST @ Bldg 141, Admin Bldg.	HTRW	None	2/20/2001	X		NA
37(3)	UST @ Bldg 143, Admin Bldg.	HTRW	None	11/6/2000	X		NA
39(3)	UST @ Bldg 273, Clothing Bldg.	HTRW	None	2/20/2001	X		NA
48(3)	UST @ Bldg 1928, Bowling Alley	HTRW	None	2/22/2001	X		NA
49(3)	UST @ Bldg 1929, Dental Clinic	HTRW	None	2/20/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
50(3)	UST @ Bldg. 1965, PX	HTRW	None	2/20/2001	X		NA
51(3)	UST @ Bldg. 1966, Post Office	HTRW	None	2/20/2001	X		NA
52(3)	UST @ Bldg 1997, Motor Pool	HTRW	None	2/22/2001	X		NA
56(3)	UST @ Bldg 3212, Community Club	HTRW	None	2/20/2001	X		NA
57(3)	UST @ Bldg 3213, Recreation Center	HTRW	None	2/20/2001	X		NA
58(3)	UST @ Bldg 3293, Chapel	HTRW	None	2/20/2001	X		NA
60(3)	AST @ Bldg 296, Bulk Storage Area	HTRW	None	3/15/2001	X		NA
63(3)	UST @ Bldg 162	HTRW	None	2/20/2001	X		NA
64(3)	DEH Compound	HTRW	None	2/20/2001	X		NA
68(3)	Washrack, Bldg 866	HTRW	None	4/13/2001	X		NA
74(3)	Washrack, Bldg 3262/3263 @ 11th Chemical Motor Pool Area	HTRW	None	10/31/2001	X		NA
85(3)	DRMO Area	HTRW	None	2/23/2001	X		NA
125(3)	Old Incinerator, Bldg 5710	HTRW	None	2/22/2001	X		NA
130(3)	Former Quartermasters Gas Storage Area, near ASP	HTRW	None	2/22/2001	X		NA
131(3)	Former Fuel Yard	HTRW	None	3/16/2001	X		NA
136(3)	Former Gas Station @ Area 600, Bldg 694. Bldg removed.	HTRW	None	3/12/2001	X		NA
137(3)	Former Gas Station @ Area 2000 motor pool, Bldg 2094. Bldg removed.	HTRW	None	3/12/2001	X		NA
138(3)	Former Printing Plant, Bldg 143 (basement)	HTRW	None	11/6/2000	X		NA
144(3)	Former Motor Pool Area 2000	HTRW	None	3/12/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
145(3)	Motor Pool Areas 1800/1900	HTRW	None	2/22/2001	X		NA
149(3)	Motor Pool Area 600	HTRW	None	3/12/2001	X		NA
162(3)	Printing Plant, Bldg. 3183	HTRW	None	2/5/2001	X		NA
164(3)	Motor Pool Area 800	HTRW	None	4/13/2001	X		NA
167(3)	USTs at Former WAC Museum, Bldg 1077	HTRW	None	2/20/2001	X		NA
171(3)	Former Printing Plant, Bldg 144 (1st Floor)	HTRW	None	11/6/2000	X		NA
173(3)	Former Printing Plant, Bldg 2051	HTRW	None	1/17/2001	X		NA
196(3)	Gas Mask Test Chamber, Bldg. 439	HTRW	None	3/1/2001	X		NA
200(3)	Ground Scar w/Trenches @ Driving Course	HTRW	None	4/13/2001	X		NA
228(3)	Trenches west of Remount Creek	HTRW	None	4/25/2001	X		NA
236Q	Drain field - Bldg T459	HTRW	None	4/2/2001	X		NA
506(3)	UST @ Bldg. 3691	HTRW	None	2/20/2001	X		NA
519(4)	Bldg 141- Pistol Range in attic	HTRW	None	12/19/2001	X		NA
520(4)	Bldg. 143. Former Pistol Range in attic of building	HTRW	None	12/19/2001	X		NA
198(3)	Former CS Training Area	HTRW	None	3/1/2001	X		NA
178(3)	Golf Course	HTRW	None	8/15/2001	X		NA
5(3)	UST @ Former Ordnance Motor Repair Area (OMRA), Bldg 326	HTRW	None	11/28/2001	X		NA
6(4)	UST @ Recycling Center, Bldg 338	HTRW	None	11/28/2001	X		NA
20(4)	UST @ Autocraft Shop, Bldg. 1800	HTRW	None	10/9/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
26(3)	UST @ Boiler Plant #1, Bldg 3176	HTRW	None	7/30/2001	X		NA
32(4)	UST @ Former Tar Plant/Temp Transformer Storage Facility, Bldg 4437	HTRW	None	11/28/2001	X		NA
42(4)	UST @ Bldg 338, Recycling Center	HTRW	None	11/28/2001	X		NA
47(3)	UST @ Bldg 1800, Autocraft Shop	HTRW	None	10/9/2001	X		NA
60Q	Current PCB Storage Facility, Bldg. 4460	HTRW	None	10/1/2002	X		NA
86(3)	Contractor Laydown Area	HTRW	None	11/28/2001	X		NA
89(3)	Boiler Plant #1, Bldg 3176	HTRW	None	7/30/2001	X		NA
96(3)	Former Incinerators, Bldgs. 4428/4430	HTRW	None	7/30/2001	X		NA
99(3)	Former Tar Plant/Temporary Transformer Storage Facility, Bldg S-4437	HTRW	None	11/28/2001	X		NA
100(3)	Autocraft Shop, Bldg 1800	HTRW	None	10/9/2001	X		NA
101(3)	UST @ Boiler Plant #4, Bldg 1876	HTRW	None	9/10/2001	X		NA
143(3)	Motor Pool Area 1300 2nd Avenue	HTRW	None	4/4/2001	X		NA
148(3)	Former Motor Pool Area 1300, 4th Ave	HTRW	None	3/12/2001	X		NA
152(3)	Former DPDO - Salvage Yard	HTRW	None	10/9/2001	X		NA
153(3)	Ground Scar South of Bldg. 3134	HTRW	None	10/9/2001	X		NA
154(3)	Ground Scar/Trenches off Littlebrandt Road	HTRW	None	2/4/2002	X		NA
156(3)	Ground Scar near ASP	HTRW	None	10/26/2001	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
158(3)	Ground Scar @South End of Confidence Course	HTRW	None	10/2/2001	X		NA
166(3)	Training Aids Building - Bldg 267	HTRW	None	11/13/2001	X		NA
236(3)	Boiler Plant No. 4, Bldg. 1876	HTRW	None	9/10/2001	X		NA
241(3)	Former Area 2100 Motor Pool	HTRW	None	10/9/2001	X		NA
226(3)	Boiler Plant No. 2, Bldg 2278	HTRW	None	10/17/2001	X		NA
75(3)	Former OMRA/Adjacent Warehouses	HTRW	None	11/28/2001	X		NA
67Q	Radiological Facility, Bldg. 4416	HTRW	None	9/22/2003	X		NA
97(3)	Former Sandel Flame Thrower Range	HTRW	None	10/2/2001	X		NA
179(3)	Former Personnel Decontamination Station, Bldg. 3185	HTRW	None	3/13/2001	X		NA
189(3)	Reported CWM Spill/Burial Site N. of Bldg 267	HTRW	None	9/22/2003	X		NA
190(3)	Reported CWM Spill/Burial Site E. of Bldg 1928	HTRW	None	9/22/2003	X		NA
191(3)	Reported CWM Spill/Burial Site S. of Bldg 141	HTRW	None	9/22/2003	X		NA
192(3)	Reported CWM Spill/Burial Site W. of Bldg 3181	HTRW	None	9/22/2003	X		NA
199(3)	Bldg 4416 @ ASP	HTRW	None	2/22/2001	X		NA
505(3)	UST @ Bldg. 3179	HTRW	None	2/20/2001	X		NA
509(3)	Agent ID Area	HTRW	None	9/22/2003	X		NA
515(3)	Field Personnel Decontamination Area	HTRW	None	9/22/2003	X		NA
517(7)	CBR Proficiency Area	HTRW	None	2/2/2003	X		NA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
44(4)	UST @ Bldg 1201 (Bldg demolished)	HTRW	None	2/20/2001	X		NA
247Q-X	Probable Range, SW Main Post	HTRW	None	9/22/2003	X		NA
197(3)	Ammunition Supply Point	HTRW	None	2/22/2001	X		NA
24(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)	HTRW	Groundwater	12/20/2010		X	IV.C.2.G.
25(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)						
73(7)	Motor Pool Area 3100: Washrack, Bldg 3142 (near Poly Inst)						
146(7)	Motor Pool Area 3100: (near Poly Inst)						
212(7)	Motor Pool Area 3100: UST @ Bldg 3138, (near Poly Inst)						
132Q-X	Impact Area, North Central Main Post						
89Q-X	Range 31: Weapons Demonstration Range	HTRW	Soil	7/31/2013	X		NA
215Q	Range 31: Former Defendum Field Firing Range No. 2						
100Q	Former Rifle/Machine Gun Range (Firing Line Areas)	HTRW	Soil	5/17/2005	X		NA
101Q	Former Rifle/Machine Gun Range (Firing Line Areas)						
OA-03	Former Pistol Range	HTRW	Soil	1/26/2017		X	IV.C.2.L.

Sites Requiring NFA - Table III.2.
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CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
87Q-X	Range 29: Weapons Demonstration Range	HTRW	Soil	4/9/2020		X	IV.C.2.EE
110Q	Range 29: Former Rifle Range						
111Q	Range 29: Former Rifle Range						
239Q-X	Range 29: Impact Area, Central Main Post						
69Q	Iron Mountain Road Ranges: Skeet Range	HTRW	Soil	10/31/2019		X	IV.C.2.FF
70Q	Iron Mountain Road Ranges: Range 12: Competitive Pistol Range						
71Q	Iron Mountain Road Ranges: Range 13: Qualification Pistol Range						
75Q	Iron Mountain Road Ranges: Range 19: Qualification Pistol Range						
221Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (Impact Area) N. of Washington Ranges						
222Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (at Skeet Range)						
88Q	Range 30: End of Cycle Test Range (Impact Area)	HTRW	Soil	11/26/2019		X	IV.C.2.HH
103Q	Range 30: Former Rifle/Machine Gun Range						
100Q	Impact Area South of Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges	HTRW	Soil	6/26/2024		X	IV.C.2.II
101Q	Impact Area South of Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges						

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
Southern Alpha	M5-1L and M5-1L (South)-PR Impact Area, near Stump Dump	MEC	Soil	2/3/2017		X	IV.C.2.D
MRS-1	South Side of Bains Gap Road in Bravo Area: Portions of M4- 1H Mixed Use Area – PR	MEC	Soil	2/3/2017		X	IV.C.2.Y
MRS-2 90Q-X 108Q-X 121Q-X 200Q 201Q 219Q-X 231Q	Portions of M3-1L Mixed Projectile Area- PR, M3-1L Suspect Area 1-PR, A1 Reconnaissance Area-D, M4-1H Mixed Use Area – PR Range 32: Hand Grenade Range Former Artillery Training Area Former Main Post Impact Area (large caliber rounds outside established impact area) Former Rifle Range (Washington Range) Former Field Firing Range (Washington Range)* UXO point Former Range (O.Q. - 2A)	MEC	Soil	11/22/2017		X	IV.C.2.AA

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
MRS-3 73Q-X 91Q-X 116Q-X 117Q-X 200Q 201Q 228Q 231Q	Portion of M3-1H Mixed Use Area-D, M3-2H Mortar Area-PR, M3-2H Mortar Area-D, M3-1L Rocket Area-D, M3-1L 37mm Projectile Area-D, M3-3H Rocket/Grenade Area-D and all of M3-1H Rocket Area-PR and M3-1H Grenade Area-PR Range 17: Explosives Proficiency Training Area* Dud Impact Area Former 60 mm Mortar Range Former Main Post Impact Area (Museum Area) Former Rifle Range (Washington Range) Former Field Firing Range (Washington Range) Former Machine Gun Transition Range Former Range (O.Q. - 2A)	MEC	Soil	9/20/2018		X	IV.C.2.CC
MRS-4 108Q-X 122Q-X	Portion of M4-1H Mixed Use Area –PR Former Artillery Training Area Former Main Post Impact Area (large caliber rounds outside established impact area)	MEC	Soil	10/5/2017		X	IV.C.2.BB
MRS-5 108Q-X 123Q-X	Portion of M3-1L Mixed Projectile Area – PR Former Artillery Training Area Former Main Post Impact Area (large caliber rounds outside established impact area)	MEC	Soil	10/5/2017		X	IV.C.2.V

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
MRS-6 73Q-X 115Q 116Q-X 117Q-X 129Q-X 151Q 201Q 231Q	Portion of M3-1L Rocket Area –D, M3-2H Mortar Area – D, and M3-2H Mortar Area – PR Range 17: Explosives Proficiency Training Area Former Small Arms Range Former 60 mm Mortar Range Former Main Post Impact Area (Museum Area) Vietnam Village on southwestern Main Post Former Rifle Range Former Field Firing Range (Washington Range) Former Range (O.Q. - 2A)	MEC	Soil	10/5/2017		X	IV.C.2.W
MRS-8 108Q-X 201Q 231Q	Portion of M3-1L Suspect Area 1 – PR, A1 Recon Area – D, and M3-2M Hand Grenade Area – PR Former Artillery Training Area Former Field Firing Range (Washington Range) Former Range (O.Q. - 2A)	MEC	Soil	6/11/2018		X	IV.C.2.DD
MRS-9 200Q	Portion of M3-3H Rocket/Grenade Area – D and M3-2M Hand Grenade Area - PR Former Rifle Range (Washington Range)	MEC	Soil	10/29/2018		X	IV.C.2.H
MRS-11 108Q-X 116Q-X 200Q 201Q 220Q-X 228Q 231Q	M3-Remainder Area-PR Former Artillery Training Area Former 60 mm Mortar Range Former Rifle Range (Washington Range) Former Field Firing Range (Washington Range) UXO point Former Machine Gun Transition Range Former Range (O.Q. - 2A)	MEC	Soil	3/22/2018		X	IV.C.2.X

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
MRS-12 102Q OA-08	Portions of M6-1M Transect Area 2 (North), M6-1M Suspect Area (North) – PR, M6-1M Burn Pit-PR, and Supplemental EE/CA NT-1N, NT-1S and NT-2 Former Rifle/Machine Gun Range Tank Sub-caliber/Carbine Transition/Machine Gun Range	MEC	Soil	11/22/2017		X	IV.C.2.Z
MRS-13 99Q OA-08	Portions of M6-1M Transect Area 1 (South), M6-1M Suspect Area (South)-PR and Supplemental EE/CA ST-1, ST-2 and ST-3 Former Rifle/Machine Gun Range* Tank Sub-caliber/Carbine Transition/Machine Gun Range	MEC	Soil	6/11/2018		X	IV.C.2.N
79Q	Baby Bains Gap Road Ranges: Range 23: Trainfire (Record) Range	HTRW	Soil	7/23/2019		X	IV.C.2.GG
86Q	Baby Bains Gap Road Ranges: Range 28: Blank Fire and Maneuver Range						
223Q	Baby Bains Gap Road Ranges: Range 25 – East Rifle Range						
227Q	Baby Bains Gap Road Ranges: Former Pistol Range						

CERFA PARCEL#	DESCRIPTION	HISTORY		CONCUR DATE	CONDITIONS*		REMEDY SECTION REFERENCE
		NFA Issue(s)	Impacted Media		None	LUCs	
83Q	Baby Bains Gap Road Ranges: Range 25: Known Distance (KD) Range	HTRW	Soil	2/13/2014		X	IV.C.2.JJ
84Q-X	Baby Bains Gap Road Ranges: Range 26: Life Fire and Maneuver Area						
118Q-X	Baby Bains Gap Road Ranges: Former Main Post Impact Area (Range 25 backstop)						
224Q	Baby Bains Gap Road Ranges: Former Pistol Range S. of R25 - East						
226Q	Baby Bains Gap Road Ranges: Former Machine Gun Range						

NA: Not Applicable
HTRW: Hazardous, Toxic Radioactive Waste
UST: Underground Storage Tank
MEC – Munitions and Explosives of Concern

CERFA: Community Environmental Response Facilitation Act
CWM: Chemical Warfare Materiel
GT/Y: Golden Triangle/Y Area

*Conditions column indicates what conditions, if any, were placed by ADEM on the approval of the NFA determination for the site. "None" indicates the site is approved for unrestricted reuse based on the NFA Issues listed for a parcel (e.g. no further action with respect to HTRW, although other issues may remain). "LUCs" indicates that remediation has concluded at the site, but must have the approved LUCs in place in perpetuity to protect human health and the environment. For details regarding requirements for these or other conditions, see Part IV for overall requirements and specifics in approved corrective measures plan as referenced in Tables IV.1. and IV.2. See also Table VI.1.a. for an appropriate reference to the corresponding LUC/Environmental Covenant.

PART IV

CORRECTIVE MEASURES IMPLEMENTATION

IV.A. APPLICABILITY

The conditions of this Part apply to Parcels, Sites, SWMUs and AOCs identified in Tables IV.1., IV.2. and IV.3. Sites that require corrective measures are listed in Table IV.1. Final approved remedies are listed in Table IV.2. Sites where corrective actions are completed are listed in Table IV.3.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs that include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

IV.B. GENERAL CONDITIONS

1. The MDA is required to perform corrective measures for the Parcels, Sites, SWMUs and AOCs identified in Agreement Condition IV.A. The approved remedy for these defined units, waterway areas, or land parcels includes any and all actions set forth in this Agreement and in the approved IM Plans, CMSs, and CMI Plans approved by the Department, as noted in Table IV.2.

2. Remedial Cleanup Levels

Upon approval, pursuant to Agreement Condition III.E., of a CMI Plan designating applicable cleanup level(s), the cleanup level(s) for the areas specific to the CMI Plan will be deemed to be a condition of this Agreement.

3. Groundwater Monitoring and Remediation

Where required pursuant to Conditions IV.B.1. and IV.C. of this Agreement, the MDA shall comply with the general groundwater monitoring requirements of Part V of this Agreement.

4. Land Use Controls (LUCs)

Where required pursuant to Conditions IV.B.1. and IV.C. of this Agreement, the MDA shall establish appropriate land use controls to achieve protection of human health and the environment. To the extent practicable, said land use controls will be coordinated with controls that may be required by the Department of Defense Explosives Safety Board (DDESB). The MDA shall comply with Conditions IV.B.5. and IV.B.6. of this Agreement when implementing corrective measures requiring land use controls. Where the owner of such property will not allow an environmental covenant to be imposed, the MDA shall notify the Department within 14 calendar days of

receipt of written notification by the property owner. In such cases, the Department may allow the MDA to propose an alternate area-specific land use control, subject to the Department's review and approval.

5. Survey Plat

For corrective measures where residual concentrations of contaminants will remain in-place at levels greater than those appropriate for unrestricted land use, or for corrective measures that rely on land use controls, the MDA must:

- a. Within 90 calendar days following the approval by the Department of an interim or final CMI Plan, the effective date of an Agreement modification addressing remedy selection, or at such other time as agreed in writing by the Department, submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of the Parcels, Sites, SWMUs and/or AOCs and capped or partially remediated areas with respect to permanently surveyed benchmarks, the locations of sampling points, and the concentrations of hazardous constituents detected. This plat must be prepared and certified by a professional land surveyor registered in the State of Alabama. The plat must be filed with the local zoning authority, or the authority with jurisdiction over local land use and must contain a note, prominently displayed, which states the MDA's obligation to limit the property to the specified non-residential uses.

For existing interim land use controls which have previously been imposed on or before the effective date of this Agreement, site specific Geographic Information System (GIS) or similar maps shall be deemed to fulfill the survey plat requirement contained herein, provided that they are filed with the local zoning authority, or the authority with jurisdiction over local land use and contain a note, prominently displayed, which states the MDA's obligation to limit the property to the specified non-residential uses. At the time that such existing interim land use controls are modified or are determined to be appropriate for final land use controls, the MDA shall update the records filed with the local zoning authority, or the authority with jurisdiction over local land use to include the survey plat prepared and certified by a professional land surveyor as described above.

- b. The survey plat must be maintained as described in Condition IV.B.5.a. of this Agreement and in the CMS Report until the MDA has demonstrated, to the satisfaction of the Department that the levels of hazardous constituents in all contaminated media are within limits appropriate for unrestricted residential land uses.

6. Environmental Covenant

No later than the submission of the survey plat required in Agreement Condition IV.B.5.b., the MDA must:

- a. Record in the probate judge's office of Calhoun County an environmental covenant in accordance with ADEM Admin. Code R. 335-5 that will in perpetuity notify any potential purchaser of the property that:
 - i. The land is contaminated with hazardous constituents in concentrations that exceed residential standards;
 - ii. The use of the property is restricted by this Agreement for certain recreational, residential, municipal, or industrial purposes and may lead to an increased risk of exposure to hazardous constituents depending upon the activities initiated at the site. Such activities may yield an increased level of human health risk to the owner;
 - iii. The potential purchaser or entity that desires to work in the contaminated area should notify the MDA before mobilizing to the area covered by the land use control (the MDA must provide contact name and number in the Deed Notice).
- b. Submit to the Department a certification, signed by the MDA in accordance with Agreement Condition II.C.11., that the environmental covenant specified in this part has been performed. This certification must include a copy of the document in which the notation has been placed.
- c. Maintain the environmental covenant described in Agreement Condition IV.B.6. until the MDA has demonstrated, to the satisfaction of the Department, that the levels of hazardous constituents in all contaminated media are within limits appropriate for unrestricted, residential land uses.
- d. Submit fees in accordance with ADEM Admin. Code R. 335-5-1-.06 to provide the Department with the funds required to implement the provisions of the Alabama Uniform Environmental Covenants Act.

7. Security

Security measures, where required by Conditions IV.B.1. and IV.C., of this Agreement will be conducted in accordance with ADEM Admin. Code R. 335-14-5-.02(5)(b)2.(ii) and as prescribed in the approved CMI Plan.

8. Inspection

Where corrective measures addressed in Agreement Conditions IV.B.1. include provisions to cap in place or partially remediate properties or land areas, whether owned or not owned by the MDA, the MDA shall specify inspection protocols on a scheduled basis to ensure continued integrity of the remedy and to ensure that land use remains appropriately restricted per the environmental covenant established pursuant to Agreement Condition IV.B.6. Inspection provisions shall be as prescribed in the approved CMI Plan.

9. Reporting

For all corrective measures addressed in Agreement Conditions IV.B.1., and IV.C. which consist of, include, and/or require the imposition and/or maintenance of land use controls, whether on property owned or not owned by the MDA, the MDA shall submit Land Use Control Effectiveness Reports (LUCER) on an annual basis, beginning within 365 days of the effective date of this Agreement. The LUCER shall include, at a minimum the following:

- a. For Engineering Controls
 - i. A detailed narrative presenting an evaluation of the integrity, status, and effectiveness of each individual land use control;
 - ii. Tabulated summaries of inspection and maintenance activities performed for each individual land use control during the reporting period;
 - iii. Any significant revisions, adjustments, or proposed modifications to the individual land use controls.
- b. For Institutional Controls and/or Water Use Restrictions
 - i. A detailed narrative presenting an evaluation of the integrity, status, and effectiveness of each individual land use control;
 - ii. Tabulated summaries of inspection and maintenance activities performed for each individual land use control during the reporting period;
 - iii. Any significant revisions, adjustments, or proposed modifications to the individual land use controls.

IV.C. AREA SPECIFIC CONDITIONS

1. Interim LUCs

The Department has determined that interim land use controls covering portions of the FOSET Parcels as identified in Table VI.1. are required to be implemented as of the original effective date of the Agreement, in order to ensure on-going protection of human health and the environment while corrective measures are being considered and undertaken hereunder. These interim land use controls, in the form of Deed Notices which are attached to the Deed to the FOSET Parcels from the Army to the MDA, are incorporated herein by reference. The MDA shall maintain and enforce the provisions of these Deed Notices until corrective measures required hereunder at the sites covered by these interim land use controls have been completed, and final remedies implemented. Upon the implementation of final remedies for the respective FOSET Parcels, these Deed Notices may be terminated, modified, or incorporated into the applicable final remedies, as the case may be, pursuant to the requirements of the relevant CMI Plan.

A. Training Area T-31, Parcels 184(7) and 185(7)

1. Public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy.

B. Training Area T-24A Parcels 112Q, 213Q and 214Q

1. Public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy.

2. Final Remedies

All properties transferred from the Army under Quitclaim deeds listed in Table VI.1.b. to the MDA will include a deed notice in all current and future property transfer documents that informs future property owners of the historical military use and provides notification procedures in the event a MEC item is discovered.

A. Landfill 4, Parcel 81(5)

Environmental Covenant Number FY-23-01.00 has been placed on the property with the following restrictions:

1. The facility shall inspect and maintain the engineered landfill cap as described and required in ADEM Rule 335-13 or Permit 08-02.
2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. Use of groundwater for potable water, irrigation, industrial and agricultural applications is not allowed.
5. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
6. Permanent monuments marking the boundary of Landfill 4 have been installed and signs prohibiting intrusive activities have been posted.
7. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

B. Industrial Landfill, Parcel 175(5)

Environmental Covenant Number FY-23-01.00 has been placed on the property with the following restrictions:

1. The facility shall inspect and maintain the engineered landfill cap as described and required in ADEM Rule 335-13 or Permit 08-02.

2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
5. Permanent monuments marking the boundary of Landfill 4 have been installed and signs prohibiting intrusive activities have been posted.
6. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

C. Former Washrack, Building 1740, Soldier's Chapel, Parcel 127(7)

Environmental Covenant Number FY-12-03.00 has been placed on the property with the following restrictions:

1. Consumptive use or direct contact with groundwater is not allowed due to low levels of volatile organic compounds in groundwater.
2. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

D. Southern Alpha and South Side of Bains Gap Road UXO

Environmental Covenant Number FY-15-02.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed "on-call" to assist if suspected UXO are encountered during construction within the confines of the Cemetery Boundary or within the confines of an area three feet either side and including the area underneath Bains Gap Road of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

E. Golden Triangle/Y Area

Environmental Covenant Number FY-17-03.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

- F. GSA Warehouse Area FOST: UST @ GSA Motor Pool, Building 238, Parcel 2(4), UST @ Telephone Exchange, Building 251, Parcel 3(4), POL Point, Building 265, Parcel 4(4), Former Battery Maintenance Area, Building 234, Parcel 67(4), Washrack, Building 253, Parcel 69(4), Former Dry Cleaning Area, Building T-233, Parcel 91(4), Former Multi Craft Shop, Building 245, Parcel 111(4), Former Washrack @ Nielsen St, Parcel 128(4), Washrack, near Building T-222 Parcel 129(4), GSA Warehouse Area, Parcel 151(4), UST at Former Gas Station near Building 234, Parcel 238(4).

Environmental Covenant Number FY-12-04.01 has been placed on the property with the following restrictions:

1. Consumptive or other use of groundwater and direct contact with groundwater is not allowed due to low levels of VOCs, semivolatile organic compounds (SVOCs) and three pesticides in groundwater exceeding conservative residential human-health site-specific screening levels.
2. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
3. All eleven (11) parcels comprising the GSA Warehouse Area are hereby restricted to only commercial and industrial development- with the specific exception of the surveyed area marked with a red border on Exhibit B [of the covenant]; and
4. MDA Co-Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

- G. Motor Pool Area 3100, Parcels 24(7), 25(7), 73(7), 212(7) and 146(7)

Environmental Covenant Number FY-12-03.00 has been placed on the property with the following restrictions:

1. Use of groundwater for potable water, irrigation, industrial and agricultural applications is not allowed due to low levels of constituents of concern (COCs) in groundwater.
 2. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
 3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.
- H. MRS-9 which includes portions of M3-3H Rocket/ Hand Grenade Area – D and M3-2M Hand Grenade Area – PR

Environmental Covenant Number FY-18-03.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
 2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.
- I. Former Post Garbage Dump, Parcel 126(7) and Fill Area East of Reilly Airfield, Parcel 227(7)

Environmental Covenant Number FY-11-01.00 has been placed on the property with the following restrictions:

1. Class 2 engineering controls of clay or soil caps shall be maintained.
2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. Groundwater monitoring wells remain on and/or around the property and shall not be disturbed. Wells located on property that is transferred or leased from the Grantor to a third party will at all times remain accessible to the Grantor.
5. The installation of any well for extraction of groundwater for purposes of consumptive or other uses is prohibited.
6. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property,

or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

7. Permanent monuments marking the boundary of GDFEAER have been installed and signs prohibiting intrusive activities have been posted.

J. Fill Area Northwest of Reilly Airfield, Parcel 229(7)

Environmental Covenant Number FY-11-01.00 has been placed on the property with the following restrictions:

1. Class 2 engineering controls of clay or soil caps shall be maintained.
2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. Groundwater monitoring wells remain on and/or around the property and shall not be disturbed. Wells located on property that is transferred or leased from the Grantor to a third party will at all times remain accessible to the Grantor.
5. The installation of any well for extraction of groundwater for purposes of consumptive or other uses is prohibited.
6. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.
7. Permanent monuments marking the boundary of FANWR have been installed and signs prohibiting intrusive activities have been posted.

K. Training Area T-38, Former Tech Escort Reaction Area, Parcel 186(6)

Environmental Covenant Number FY-12-01.01 has been placed on the property with the following restrictions:

1. The use of groundwater beneath the Property for any purpose other than groundwater monitoring is prohibited.
2. Public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy.
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

L. Former Pistol Range, Parcel OA-03

Environmental Covenant Number FY-12-01.01 has been placed on the property with the following restrictions:

1. Residential use of the property is prohibited within the area identified on Exhibit A. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and

trainings programs for persons over 18 years of age), and assisted living facilities.

2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

M. Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q

Environmental Covenant Number FY-12-01.01 has been placed on the property with the following restrictions:

1. Public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy.
2. The use of groundwater beneath the Property for any purpose other than groundwater monitoring is prohibited.;
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

N. MRS-13, Tracts A and B

Environmental Covenant Number FY-12-01.01 has been placed on the property with the following restrictions:

1. The use of groundwater beneath the Property for any purpose other than groundwater monitoring is prohibited.
2. Prohibition on intrusive activities without EOD (explosive ordnance disposal personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered.
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

O. Landfill 1, Parcel 78(6)

Environmental Covenant Number FY-12-02.00 has been placed on the property with the following restrictions:

1. The facility shall inspect and maintain the engineered landfill cap on Landfill 1, at the location shown in Exhibit A of Environmental Covenant FY12-02.00, as described and required in the *Final Corrective Measures Implementation Plan* and the *Final, Revision 2, Corrective Measures Implementation Report* for Landfill 1, Parcel 78(6); Landfill 2, Parcel 79(6); Former Post Garbage Dump, Parcel 126(7); Fill Area East of Reilly Airfield, Parcel 227(7); and Fill Area North of Landfill 2, Parcel 230(7) dated January 2008 and September 2012, respectively.

2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
5. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.
6. Permanent monuments marking the boundary of Landfill 1 have been installed and signs prohibiting intrusive activities have been posted.

P. Landfill 2, Parcel 79(6)

Environmental Covenant Number FY-12-05.00 has been placed on the property with the following restrictions:

1. The facility shall inspect and maintain the engineered landfill cap on Landfill 2, at the location shown in Exhibit A of Environmental Covenant FY12-05.00, as described and required in the *Final Corrective Measures Implementation Plan* and the *Final, Revision 2, Corrective Measures Implementation Report* for Landfill 1, Parcel 78(6); Landfill 2, Parcel 79(6); Former Post Garbage Dump, Parcel 126(7); Fill Area East of Reilly Airfield, Parcel 227(7); and Fill Area North of Landfill 2, Parcel 230(7) dated January 2008 and September 2012, respectively.
2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of the property is restricted to surface use only. Digging or excavation is prohibited.
4. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
5. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.
6. Permanent monuments marking the boundary of Landfill 2 have been installed and signs prohibiting intrusive activities have been posted.

Q. Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)

Environmental Covenant Number FY-12-06.00 has been placed on the property with the following restrictions:

1. Consumptive use or direct contact with groundwater is not allowed due to low levels of volatile organic compounds in groundwater.
2. Public access is not allowed and use of the Property for any purpose is not allowed pending completion of the remedy.
3. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.
4. Groundwater monitoring wells remain on and/or around the Property and shall not be disturbed. Wells located on property that is transferred or leased from the Grantor to a third party will at all times remain accessible to the Grantor.
5. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

R. Small Weapons Repair Shop, Parcel 66(7)

Environmental Covenant Number FY-12-07.00 has been placed on the property with the following restrictions:

1. Consumptive use or direct contact with groundwater is not allowed within the confines of the Covenant Boundary due to low levels of VOCs in groundwater.
2. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited within the Covenant Boundary.
3. If groundwater monitoring wells or a remediation system remain on and/or around the Property (CERFA Parcel and/or Covenant Boundary) these areas shall not be disturbed. Wells and/or remediation systems located on Property that is transferred or leased from the Grantor to a third party will at all times remain accessible to the Grantor.
4. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

S. Former Chemical Laundry and Motor Pool Area 1500, Parcel 94(7)

Environmental Covenant Number FY-12-08.00 has been placed on the property with the following restrictions:

1. Consumptive or other use of groundwater and direct contact with groundwater is not allowed within the confines of the Covenant

Boundary due to low levels of volatile organic compounds (VOCs) in groundwater.

2. If and when property is developed in accordance with the planned use, intrusive activities may require appropriate precautions in accordance with local, state and federal regulations.
3. If and when a building is constructed in accordance with the planned use, an evaluation of the potential for vapor intrusion will be performed at that time in accordance with local, state and federal regulations to determine if vapor mitigation measures are required.
4. Use of site groundwater for potable water, irrigation, industrial and agricultural applications is not allowed within the confines of the Covenant Boundary due to low levels of VOCs in groundwater.
5. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited within the Covenant Boundary.
6. If groundwater monitoring wells or a remediation system remain on and/or around the Property (CERFA Parcel and/or Covenant Boundary) these areas shall not be disturbed. Wells and/or remediation systems located on Property that is transferred or leased from the Grantor to a third party will at all times remain accessible to the Grantor.
7. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

T. Landfill 3, Parcel 80(6)

1. MDA has repaired the cap and is continuing with cap inspections and maintenance as required by the CMI Plan.
2. Class 2 engineering controls such as clay or soil caps shall be maintained.
3. Residential use of the property is not allowed. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
4. Consumptive use or direct contact with groundwater is not allowed.
5. Use of property is restricted to surface use only. Digging or disturbance of soils is not allowed.
6. The installation of any well for extraction of groundwater for purposes of consumption or bathing is prohibited.
7. Permanent monuments marking the boundary of Landfill 3 have been installed, and signs prohibiting intrusive activities have been posted.

U. Fill Area North of Landfill 2, Parcel 230(7)

Environmental Covenant Number FY-13-01.00 has been placed on the property with the following restrictions:

1. The facility shall inspect and maintain the engineered landfill cap on Fill Area North of Landfill 2, at the location shown in Exhibit A, as described and required in the *Final Corrective Measures*

Implementation Plan for Landfill 1, Parcel 78(6); Landfill 2, Parcel 79(6); Former Post Garbage Dump, Parcel 126(7); Fill Area East of Reilly Airfield, Parcel 227(7); and Fill Area North of Landfill 2, Parcel 230(7) dated January 2008 and the *Final Corrective Measures Implementation Report* for Fill Area North of Landfill 2 dated November 2012.

2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Use of property is restricted to surface use only. Digging or excavation is prohibited.
4. The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Co-Holders or ADEM for groundwater monitoring) is prohibited.
5. Co-Grantors reserve an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

V. MRS-5, Tracts D and E

Environmental Covenant Number FY-16-01.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

W. MRS-6, Tracts A and B

Environmental Covenant Number FY-16-02.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

- X. MRS-11, Tract B exception area located within three feet of either side and underneath the Industrial Access Road

Environmental Covenant Number FY-17-02.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities within the Covenant Boundary area without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary as described herein.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

- Y. MRS-1 containing Range 25: Known Distance Range, Parcel 83Q and Main Post Impact Area, Parcel 118Q-X

Environmental Covenant Number FY-15-01.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of an area three feet either side and including the area underneath both the Industrial Access Road and Bains Gap Road of the Covenant Boundary.
2. Residential use of the property is prohibited within the area identified on the MRS-1 boundary map consisting of the entire Parcel 118Q-X and portions of Parcel 83Q. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

- Z. MRS-12, Areas 1, 2 and 3, which are portions of Tracts A, B, C and D

Environmental Covenant Number FY-16-03.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary

after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

AA. MRS-2, Tracts D, F, H and J, including Industrial Access Road, Cassell Way, Town Center Drive and Halifax Avenue

Environmental Covenant Number FY-17-01.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Prohibition areas 2-Da, 2-Db, 2-Dc, 2-Dd, 2-De, 2-F, 2-Ha, 2-Hb and 2-J or within the Archaeology Site Boundary or within the confines of an area three feet either side and including the area underneath the Industrial Access Road, Cassell Way, Town Center Drive and Halifax Avenue with MRS-2.
2. The MDA reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

BB. MRS-4, Tracts E, F and G

Environmental Covenant Number FY-17-04.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

CC. MRS-3, Tracts A, B, C and D

Environmental Covenant Number FY-18-01.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property,

or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

DD. MRS-8, Tracts D and E

Environmental Covenant Number FY-18-02.00 has been placed on the property with the following restrictions:

1. Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Covenant Boundary.
2. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

EE. Range 29, Parcels 87Q-X, 110Q, 111Q and 239Q-X

1. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities..
2. The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
3. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

FF. Iron Mountain Road Ranges: Skeet Range, Parcel 69Q, Range 12, Parcel 70Q, Range 13, Parcel 71Q, Range 19, Parcel 75Q, Former Rifle Grenade Range (Impact Area) N. of Washington Ranges, Parcel 221Q-X and Former Rifle Grenade Range (at Skeet Range), Parcel 222Q-X

1. The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
2. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Residential, commercial and industrial use are prohibited within the area identified on the covenant boundary map consisting of Parcel 70Q.
4. Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

GG. Baby Bains Gap Road Ranges: Range 23: Trainfire (Record) Range, Parcel 79Q, Range 28: Blank Fire and Maneuver Range, Parcel 86Q, Former Range 25 – East Rifle Range, Parcel 223Q, and Former Pistol Range, Parcel 227Q

1. Residential use of the property is prohibited. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
2. The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.

HH. Range 30 Impact Area; Range 30: End-of-Cycle Test Range (Parcel 88Q), Former Rifle/Machine Gun Range (Parcel 103Q)

1. The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
2. Residential use of the property is prohibited within the areas identified on the covenant boundary map. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Residential, commercial and industrial use are prohibited within the areas identified on the covenant boundary map.

II. Impact Area South of Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges Parcels 100Q and 101Q

1. The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
2. Residential use of the property is prohibited within the areas identified on the covenant boundary map. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
3. Residential, commercial and industrial use are prohibited within the areas identified on the covenant boundary map.

JJ. Baby Bains Gap Road Ranges: Range 26: Live Fire and Maneuver Area, Parcel 84Q-X, Former Pistol Range S. of R25 – East, Parcel 224Q and Former Machine Gun Range, Parcel 226Q

1. Residential use of the property is prohibited within the area identified on the covenant boundary map consisting of Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 239Q-X, 87Q-X and 111Q. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
2. For Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 239Q-X, 87Q-X and 111Q the use of groundwater beneath the property, to include the installation of any well for extraction of

groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited.

IV.D. CORRECTIVE MEASURES IMPLEMENTATION (CMI) REPORTS

1. CMI Progress Reports

If the time required to complete implementation of a specific set of corrective measures, as described in a given CMI Plan, is greater than 180 calendar days, the MDA shall provide ADEM with progress reports according to the schedule approved by ADEM in the CMI Plan. The progress reports shall, at a minimum, contain all of the following information:

- a. A description of the portion of CMI completed;
- b. Summaries of and deviations from the approved CMI during the reporting period;
- c. Summaries of current and potential problems, including recommended solutions and alternatives as well as corrective actions undertaken;
- d. Any monitoring data (soil, air, dust, water) collected for any reason during the construction period for the purposes of monitoring potential for human and ecological exposure; and,
- e. Projected work for the next period and impacts to the approved schedule.

2. Final CMI Reports

Upon completion of construction of corrective measures systems, implementation of land use controls, interim removal actions, or other short-term activities required by this Agreement and/or the approved CMI Plan, the MDA shall submit to the Department a Final CMI Report containing, at a minimum, the following:

- a. A description of activities completed;
- b. For cap and cover remedies, as-built construction drawings presenting the final in-place three-dimensional location of contaminated material. A plan view of the remediated areas shall be presented in addition to a cross section of the in-place capped areas;
- c. Hazardous waste manifests indicating the handling of any excavated material that has been shipped off-site to a Department approved, certified landfill;

- d. For remedies involving land use controls, a copy of the survey plat and environmental covenant required by Condition IV.B. of this Agreement;
- e. Monitoring data (soil, air, dust, water) collected for any reason during the construction period for the purposes of monitoring potential for human and ecological exposure; and,
- f. Certification, prepared in accordance with ADEM Admin. Code Rule 335-14-8-02 (2)(d) by the MDA and an independent professional engineer registered in the State of Alabama, that the corrective measures implementation phase (*i.e.*, construction) required by this Agreement is complete and that the approved system and/or facilities are ready for operation in accordance with the intended design (*i.e.*, CMI Plan).

3. Corrective Measures (CM) Effectiveness Reports

- a. For corrective measures that have been fully implemented and where the corrective measures system must operate for a period of time to achieve cleanup goals/levels, the MDA shall submit CM Effectiveness Reports on a semi-annual basis, unless otherwise approved by the Department, beginning 180 calendar days following the Department's approval of the Final CMI Report. The CM Effectiveness Reports shall include, at a minimum, the following:
 - i. A detailed narrative presenting an evaluation of the effectiveness of the selected remedy;
 - ii. Summaries of compliance with and progress toward achieving cleanup goals;
 - iii. Any significant revisions, adjustments, or proposed modifications to the selected remedy;
 - iv. Tabulated environmental sampling and monitoring data, specifically including but not limited to, groundwater quality and elevation data, and a graphical representation of all constituents detected during each sampling event from recovery wells, monitoring wells, drinking water wells, and other locations;
 - v. Chain of custody, field reports, and laboratory data sheets to include the date of collection, the date the sample was extracted, and the date of sample analysis for samples collected during the reporting period;
 - vi. Any monitoring data (soil, air, dust, water) collected for any reason during the post-construction period for the purposes of monitoring potential for human and ecological exposure;

- vii. Isoconcentration maps depicting the distribution of parameters for each sampling event;
 - viii. Time versus concentration plots for each monitoring parameter for each recovery well and a representative number of effectiveness wells;
 - ix. Tabulated volumetric data on groundwater pumped and pumping rates (monthly and cumulative) for each recovery well, if applicable;
 - x. Records of any groundwater recovery system operation time, including shut-down periods, not including any minor (less than 24 hours) shut-downs for repairs, maintenance, etc.;
 - xi. Potentiometric surface maps;
 - xii. Description of land use during the reporting period at the designated area requiring corrective measures; and,
 - xiii. Findings of the MDA's investigation into the continued effectiveness of institutional controls per Condition IV.C. of this Agreement.
- b. If, at any time, the MDA determines that any remedy selection specified in Condition IV.B. or IV.C. of this Agreement no longer satisfies the applicable requirements of ADEM Admin. Code R. 335-14-5-.06(12) or this Agreement for releases of hazardous waste or hazardous constituents originating from the Parcels, Sites, SWMUs and/or AOCs, the MDA must, within 90 calendar days, submit a request for an Agreement modification to make any appropriate changes to the CMI Plan.
- c. The request for changes in the CMI Plan, including changes in inspection and monitoring provisions of the CMI Plan, shall be submitted as an application for an Agreement modification pursuant to the requirements of ADEM Admin. Code R. 335-14-8-.04.
- d. The MDA may request in writing, for the purpose of demonstrating to the Army that the CERCLA Covenant Requirements as described in Section C.3.21 of the ESCA have been fulfilled for a Parcel(s), Site(s), SWMU(s), and/or AOC(s), an evaluation by the Department as to whether a remedy(ies) is complete and/or implemented, operating and maintained in an appropriate, effective and sufficient manner. Any such evaluation made by the Department pursuant to this Agreement Condition shall not shorten, diminish, or otherwise limit any requirement or liability of the MDA or any other party which may otherwise be applicable pursuant to this Agreement.

4. Final Report of Corrective Measures

Within 90 calendar days following attainment of cleanup levels/goals as outlined in this Agreement and the approved CMI Plan, the MDA shall submit to the Department a Final Report of Corrective Measures (FRCM). The FRCM shall contain a certification by the MDA and an independent professional engineer registered in the State of Alabama that all remedial measures required by this Agreement and the approved CMI Plan have been completed. The FRCM shall outline any procedures and schedules for dismantling of corrective measures systems, groundwater monitoring/recovery systems, removal of land use controls, and any other remedial systems/controls required by this Agreement or the approved CMI Plan.

IV.E. RELEASE OF PARCELS FROM THE AGREEMENT

Parcels for which corrective action is required and has been completed pursuant to this Agreement will be released from this Agreement upon the occurrence of either the approval by ADEM of the FRCM or, for parcels where the only remaining required actions are restrictive institutional controls (e.g., industrial use only, no intrusive activity, etc.), the preparation and registry of an environmental covenant imposing such restrictions by the MDA. In the case where a restrictive environmental covenant is required, the MDA will remain responsible under this Agreement and the environmental covenant for ensuring compliance with the terms of the environmental covenant. Release of parcels from this Agreement pursuant to this Condition shall constitute a major modification pursuant to Condition II.J. of this Agreement. All parcels released from this Agreement shall be maintained in Tables IV.3. and VI.1.

In accordance with Chapter 335-5-1 of the ADEM Admin. Code, the MDA may use land use controls in lieu of remediating the property to a level supporting unrestricted use. The MDA must enter into an environmental covenant in accordance with the regulations and Section IV.B.6. The environmental covenant is perpetual unless: the term is limited by the occurrence of a specific event; terminated or modified pursuant to 335-5-4-.01(2); or it is terminated or modified by consent pursuant to 335-5-4-.02.

ADEM may pursue enforcement action for violation of an environmental covenant pursuant to Code of Alabama 1975 Section 22-22A-5; a civil action for injunctive or other equitable relief for violation of an environmental covenant may be maintained by any of the following parties or entities: a party to the covenant; the Department; any person to whom the covenant expressly grants power to enforce; a person whose collateral, liability, or interest in the real property may be affected by the alleged violation of the covenant; a municipality or other unit of local government in which the real property subject to the covenant is located.

Table IV.1.

The following table presents a list of the Parcels, Sites, SWMUs and/or AOC that require corrective measures. Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by ESE. Where discrepancies exist, the Agreement will take precedence. See Table IV.2 for remedy documentation details.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs which include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

List of Parcels, Sites, SWMUs and/or AOCs Requiring Corrective Measures:

CERFA PARCEL#	DESCRIPTION	UXO		HTRW	
		Section Reference	Document	Section Reference	Document
186(6)	Training Area T-38, Former Tech Escort Reaction Area	NA	NA	IV.C.2.K.	TBD
112Q	Former Machine Gun Range	NA	NA	IV.C.1.B.	NA
213Q	Former Bandholtz Machine Gun qualifying range. Main Post				
214Q	Former Bandholtz field firing range. Main Post				

Reference documents are listed in Table I.2.

CERFA: Community Environmental Response Facilitation Act

UXO: Unexploded Ordnance – Notes will be added to these columns if the site has a history of UXO or has a presumptive remedy related to UXO contamination.

HTRW: Hazardous, Toxic, Radioactive Waste – Notes will be added to these columns if the site has a presumptive remedy related to soil and/or groundwater contamination.

NA: Not Applicable

TBD: To Be Determined

Table IV.2.

The following table presents a catalog of sites with selected remedies and approved Corrective Measures Implementation Plans (CMIPs). Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by ESE. Where discrepancies exist, the Agreement will take precedence.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs which include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

List of Selected Remedies:

CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
183(6)	Training Area T-6: Former Agent Decon Training	Groundwater remedy includes in situ bioremediation followed by monitored natural attenuation	HTRW	6/24/2011	26
510(7)	Training Area T-6: Cane Creek Training Area				
78(6)	Landfill #1	Achieved NFA with land use controls including cap maintenance and repairs, as necessary.	HTRW	2/26/2008	10
79(6)	Landfill #2	Achieved NFA with land use controls including cap maintenance and repairs, as necessary.	HTRW	2/26/2008	10
126(7)	Former Post Garbage Dump (N. of Reilly Airfield)	Achieved NFA with land use controls including cap maintenance and repairs, as necessary.	HTRW	2/26/2008	10
227(7)	Fill Area East of Reilly Airfield				
80(6)	Landfill #3	Engineered landfill cap and in situ bioremediation of groundwater.	HTRW	11/29/2006 (cap) 2/13/2014 (groundwater)	11 (cap) 12 (groundwater)
94(7)	Chemical Laundry and Motor Pool Area 1500	Monitored natural attenuation of groundwater	HTRW	6/24/2011	4

CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
229(7)	Fill Area NW of Reilly	Engineered landfill cap and in situ bioremediation of groundwater	HTRW	11/29/2006 (cap) 1/31/2012 (groundwater)	11 (cap) 12 (groundwater)
66(7)	Small Weapons Repair Shop	In-situ chemical oxidation, followed by monitored natural attenuation.	HTRW	6/24/2011	42
230(7)	Fill Area N of Landfill 2	Landfill cap maintenance and repair	HTRW	2/26/2008	10
N Alpha	M6-1L Suspect Area – I/AR	Clearance to Depth of Detection and Land Use Controls	MEC	10/4/2005	2
MRS-1	South Side of Bains Gap Road in Bravo Area: Portion of M4-1H Mixed Use Area-PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	7/21/2006	3
Southern Alpha	Southern Alpha (M5-1L-I and M5-1L (South) –PR)	A combination of: Clearance to Depth of Detection and Land Use Controls	MEC	10/4/2005	2
MRS-2	Portions of M3-1L Mixed Projectile Area-PR, M3-1L Suspect Area 1-PR, A1 Reconnaissance Area-D, M4-1H Mixed Use Area – PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	6/28/2007	1
MRS-3	Portion of M3-1H Mixed Use Area-D, M3-2H Mortar Area-PR, M3-2H Mortar Area-D, M3-1L Rocket Area-D, M3-1L 37mm Projectile Area-D, M3-3H Rocket/Grenade Area-D and all of M3-1H Rocket Area-PR, M3-1H Grenade Area-PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	4/16/2008	36
MRS-4	M4-1H Mixed Use Area – PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	5/20/2010	39
MRS-6	Portion of M3-1L Rocket Area – D, M3-2H Mortar Area – D, And M3-2H Mortar Area – PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	11/21/2008	37

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CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
MRS-8	Portions of A1 Reconnaissance Area – D, M3-1L Suspect Area 1 – PR and M3-2M Hand Grenade Area – PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	5/20/2010	38
MRS-12	Portions of M6-1M Transect Area 2 (North), M6-1M Suspect Area (North) – PR, M6-1M Burn Pit – PR, and Supplemental EECA NT-1N, NT-1S and NT-2	A combination of: NFA, Clearance to Depth of Detection, Clearance to 1 foot, Surface Clearance, and Land Use Controls	MEC	2/23/2011	40
MRS-13	Portions of M6-1M Transect Area 1 (South), M6-1M Suspect Area (South) – PR and Supplemental EECA ST-1, ST-2 and ST-3	A combination of: Clearance to 1 foot, Surface Clearance, and Land Use Controls	MEC	2/23/2011	40
81(5)	Landfill #4	Post-closure care in accordance with Solid Waste Permit 08-02	HTRW	10/15/2010	See Solid Waste Permit 08-02; 48 (groundwater)
175(5)	Industrial Landfill	Close in accordance with Solid Waste Permit 08-02	HTRW	10/15/2010	See Solid Waste Permit 08-02; 58 (closure certification)
MRS-9	Portion of M3-3H Rocket Grenade Area – D and M3-2M Hand Grenade Area – PR	A combination of: Clearance to 1 foot, Clearance to Depth of Detection and Land Use Controls	MEC	2/23/2011	35
MRS-5	Portion of M3-1L Mixed Projectile Area-PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	12/4/2012	50
MRS-7	Portion of M3-1L 37mm Projectile Area – D and M3-1H Mixed Use Area-D	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, and Land Use Controls	MEC	8/1/2012	51
74Q	Baby Bains Gap Road Ranges: Range 18: Down Range Feedback (known distance) Range	Lead stabilization and disposal of treated soil at Subtitle D landfill	HTRW	July 23, 2019	55

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CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
79Q	Baby Bains Gap Road Ranges: Range 23: Trainfire (Record) Range	Lead stabilization and disposal of treated soil at Subtitle D landfill	HTRW	July 23, 2019	54
223Q	Baby Bains Gap Road Ranges: Former Range 25 - east. Rifle Range				
83Q	Baby Bains Gap Road Ranges: Range 25: Known Distance (KD) Range	Lead stabilization and disposal of treated soil at Subtitle D landfill	HTRW	2/13/2014	52
84Q-X	Baby Bains Gap Road Ranges: Range 26: Live Fire and Maneuver Area				
118Q-X	Baby Bains Gap Road Ranges: Former Main Post Impact Area (Range 25 backstop)				
224Q	Baby Bains Gap Road Ranges: Former Pistol Range S. of R25 – East				
226Q	Baby Bains Gap Road Ranges: Former Machine Gun Range				
MRS-10	M3-1L Suspect Area 2 – PR	A combination of: Clearance to Depth of Detection, Clearance to 1 foot, Surface Clearance and No Further Action	MEC	8/12/2013	53
MRS-11	M3-Remainder Area – PR				
88Q	Range 30: End of Cycle Test Range (Impact Area)	Soil remediation and land use controls	HTRW	11/26/2019	45
103Q	Range 30: Former Rifle/Machine Gun Range				
100Q	Impact Area South of the Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges	Bullet pickup and land use controls	HTRW	6/26/2024 (Pending CA Mod)	59
101Q					

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CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
230Q-X	Anti-Tank Range	Soil remediation and land use controls	HTRW	December 5, 2025 (pending CA modification)	60
149Q	Anti-Tank Range: Former Rifle Range				
184(7)	Anti-Tank Range: Training Area T-31, Former Tech Escort Reaction Area				
185(7)	Anti-Tank Range: Former Tech Escort Reaction Area				
87Q-X	Range 29: Weapons Demonstration Range				
110Q	Range 29: Former Rifle Range	NFA with land use controls regarding use of groundwater and soil	HTRW	April 9, 2020 (pending CA modification)	57
111Q	Range 29: Former Rifle Range				
239Q-X	Range 29: Impact Area, Central Main Post				
69Q	Iron Mountain Road Ranges: Skeet Range	Soil remediation and land use controls	HTRW	October 31, 2019 (pending CA modification)	44
70Q	Iron Mountain Road Ranges: Range 12: Competitive Pistol Range				
71Q	Iron Mountain Road Ranges: Range 13: Qualification Pistol Range				
75Q	Iron Mountain Road Ranges: Range 19: Qualification Pistol Range				
221Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (Impact Area) N. of Washington Ranges				
222Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (at Skeet Range)				

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CERFA PARCEL#	PARCEL DESCRIPTION	REMEDY DESCRIPTION	REMEDY AREA ISSUE	REMEDY APPROVAL DATE	FINAL DOCUMENT REFERENCE
89Q-X	Range 31: Weapons Demonstration Range	NFA with bullet removal	HTRW	February 13, 2014	43
215Q	Range 31: Former Defendum Field Firing Range No. 2				
132Q-X	Impact Area, North Central Main Post				

Reference documents are listed in Table I.2.
 CERFA: Community Environmental Response Facilitation Act
 HTRW: Hazardous, Toxic, Radioactive Waste
 MEC: Munitions and Explosives of Concern

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Table IV.3.

The following table presents a catalog of sites where corrective action has been completed and Final Reports of Corrective Measures have been submitted. Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by ESE. Where discrepancies exist, the Agreement will take precedence.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs which include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

Corrective Action Complete – Pending Discovery of New Information:

CERFA PARCEL#	AGREEMENT SITES	DOCUMENT RECEIVED DATE	DOCUMENT CONCURRENCE DATE
21(7)	Base Service Station: Bldg 2109	9/26/2014	3/26/2015
22(7)	Base Service Station: UST @ Base Service Station, Bldg 2109		
88Q	Range 30: Firing Line		
92Q-X	Former Tank Range		
93Q-X	Former Tank Range		
107Q-X	Former Grenade Range		
133Q-X	Impact Area, North Central Main Post		
Northern Alpha	Northern Alpha	2/9/2017	8/25/2017
127(7)	Soldier's Chapel, Bldg 1740 (Washrack)	7/14/2015	11/23/2016
132Q-X	Impact Area, North Central Main Post	10/20/2015	1/4/2017
89Q-X	Range 31: Weapons Demonstration Range		
215Q	Range 31: Former Defendum Field Firing Range No. 2		
MRS-1	Munitions Response Site 1	2/22/2016	2/3/2017
Southern Alpha	Southern Alpha		
MRS-7	Munitions Response Site 7	2/9/2017	8/25/2017
MRS-10	Munitions Response Site 10	2/20/2017	8/25/2017
MRS-5	Munitions Response Site 5	9/12/2017	10/5/2017

CERFA PARCEL#	AGREEMENT SITES	DOCUMENT RECEIVED DATE	DOCUMENT CONCURRENCE DATE
MRS-12	Munitions Response Site 12	10/3/2017	11/22/2017
MRS-6	Munitions Response Site 6	2/22/2017	10/5/2017
24(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)	6/22/2017	4/20/2018
25(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)		
73(7)	Motor Pool Area 3100: Washrack, Bldg 3142 (near Poly Inst)		
146(7)	Motor Pool Area 3100: (near Poly Inst)		
212(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)		
MRS-4	Munitions Response Site 4	9/14/2017	10/5/2017
MRS-2	Munitions Response Site 2	9/25/2017	11/22/2017
MRS-9	Munitions Response Site 9	1/8/2018	10/29/2018
MRS-11	Munitions Response Site 11	2/2/2018	3/22/2018
MRS-13	Munitions Response Site 13	3/14/2018	6/11/2018
MRS-3	Munitions Response Site 3	5/23/2018	9/20/2018
MRS-8	Munitions Response Site 8	5/23/2018	6/11/2018
OA-03	Former Pistol Range	6/20/2018	11/14/2018
83Q	Baby Bains Gap Road Ranges: Range 25, Known Distance Range	6/20/2018	PENDING
118Q-X	Baby Bains Gap Road Ranges: Former Main Post Impact Area		
84Q-X	Baby Bains Gap Road Ranges: Range 26, Live Fire and Maneuver Range		
224Q	Baby Bains Gap Road Ranges: Former Pistol Range South of Range 25-East		
226Q	Baby Bains Gap Road Ranges: Former Machine Gun Range		
79Q	Baby Bains Gap Road Ranges: Range 23, Trainfire (Record) Range	6/20/2018	PENDING
223Q	Baby Bains Gap Road Ranges: Former Range 25 East, Rifle Range		
GT/Y	Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass Y Area Junction	7/26/2018	5/17/2019

PART V

GROUNDWATER MONITORING AND CORRECTIVE ACTION

V.A. REQUIRED PROGRAM(S)

1. The MDA shall conduct appropriate groundwater monitoring and/or remediation at the Facility. Groundwater monitoring and/or remediation requirements for specific SWMUs, AOCs, Sites, and/or Parcels shall be as specified in the approved interim or final CMI Plan(s) pursuant to Part IV of this Agreement.
2. The groundwater monitoring and/or remediation program specified in any interim or final CMI Plan shall address all appropriate elements of ADEM Admin. Code Rules 335-14-5-.06(8), 335-14-5-.06(9), 335-14-5-.06(10), and 335-14-5-.06(11) including, but not limited to:
 - a. Well location, installation, construction, and maintenance;
 - b. Groundwater monitoring requirements including locations, frequency and constituents monitored;
 - c. Groundwater remediation system (when applicable);
 - d. Groundwater Protection Standard;
 - e. Compliance period;
 - f. Sampling and analysis procedures; and,
 - g. Recordkeeping, reporting, and response requirements.

V.B. GENERAL GROUNDWATER MONITORING PROGRAM

1. Well Location, Installation and Construction

The MDA shall install and/or maintain a groundwater monitoring system to comply with the requirements of ADEM Admin. Code Rules 335-14-5-.06(8), 335-14-5-.06(9), 335-14-5-.06(10), and 335-14-5-.06(11) as applicable and as specified below:

- a. The MDA shall maintain all groundwater monitoring wells at the facility as identified in Table V.1. of this Agreement and any other groundwater monitoring wells specified by Agreement Condition V.B.1.d.
 - i. All groundwater monitoring wells shall be maintained in accordance with the plans and specifications presented in Part V of the Agreement and in accordance with ADEM Admin. Code Rule 335-14-5-.06.

- ii. A groundwater monitoring well shall not be removed from any monitoring program specified in this Agreement without an approved Agreement modification pursuant to Agreement Condition II.J.
 - iii. If a groundwater monitoring well is damaged, the MDA shall immediately notify the Department in writing, which includes a description of the well repair activities to be conducted. The well repair procedures must be approved by the Department prior to implementation. Within 30 calendar days after the well is repaired, the MDA shall submit a written notification to the Department that the well repair activities were conducted in accordance with the approved procedures.
 - iv. If a groundwater monitoring well is deleted from the monitoring program(s) required by this Agreement in accordance with Agreement Conditions V.B.1.a.ii. and II.J., it shall be abandoned within 90 calendar days after deletion using procedures to be approved by the Department. Within 30 calendar days after the well is abandoned, the MDA shall submit a written notification to the Department that the well abandonment activities were conducted in accordance with the approved procedures.
- b. Groundwater monitoring wells identified in Table V.1. as “POC wells” shall define the point of compliance for their respective SWMUs, AOCs, sites and/or parcels.
 - c. The MDA shall maintain groundwater monitoring well(s) identified in Table V.1. as the “UPG wells” upgradient wells for their respective SWMUs, AOCs, sites and/or parcels to be used in determining site specific background concentrations.
 - d. The MDA shall install and maintain additional groundwater monitoring wells as necessary to assess changes in the rate and extent of any plume of contamination or as otherwise deemed necessary to maintain compliance with ADEM Admin. Code Rules 335-14-5-.06(6), 335-14-5-.06(8), 335-14-5-.06(9), 335-14-5-.06(10), and 335-14-5-.06(11), as applicable. A plan in the form of an Agreement modification request specifying the design, location and installation of any additional monitoring wells should be submitted to the Department at least 90 calendar days prior to installation which, at a minimum, shall include:
 - i. Well construction techniques including casing depths and proposed total depth of well(s);
 - ii. Well development method(s);
 - iii. A complete description of well construction materials;
 - iv. A schedule of implementation for construction; and,
 - v. Provisions for determining the lithologic characteristics, hydraulic conductivity, grain size distribution, and porosity for the applicable aquifer unit(s) at the location of the new well(s).

2. General Groundwater Monitoring Requirements

- a. The MDA shall determine the groundwater surface elevation from all monitoring wells listed in Table V.1. of this Agreement at least annually and each time a sampling event is conducted. The results of these determinations should be submitted in accordance with Agreement Condition V.B.6. Elevation data should be recorded and reported as mean sea level (MSL) and referenced to an appropriate national geodetic vertical datum (NGVD) benchmark.
- b. The MDA shall determine the groundwater flow rate and direction in the underlying aquifer(s) at least annually and submit the results in accordance with Agreement Condition V.B.6.
- c. The MDA shall determine site specific background concentrations of hazardous constituents and other chemical parameters required to be monitored by this Agreement in accordance with Section V.B.5. of the Agreement, applicable CMI Plan requirements and ADEM Admin. Code Rule 335-14-5-.06(8)(g).

3. Groundwater Protection Standard

- a. The groundwater protection standard, as required under ADEM Admin. Code Rule 335-14-5-.06(3), shall consist of Table V.3. of this Agreement which lists the hazardous constituents and their respective concentration limits.
- b. The groundwater protection standard applies to all hazardous waste or hazardous constituent releases as deemed appropriate by the Department to protect human health and the environment.

4. Compliance Period

- a. The compliance period, during which the groundwater protection standard specified in Agreement Condition V.B.3. applies, shall begin at the time of the first sampling event of the compliance monitoring program (Agreement Condition V.D.), or the corrective action monitoring program (Agreement Condition V.E.), whichever is earlier.
- b. The compliance period shall continue (after beginning pursuant to Agreement Condition V.B.4.a.) until the groundwater protection standard as defined by Agreement Condition V.B.3.a. has not been exceeded for a period of three consecutive years.
- c. If the MDA is engaged in a corrective action monitoring program pursuant to Agreement Condition V.E., then the compliance period shall continue as required by ADEM Admin. Code Rule 335-14-5-.06(7)(c) until the groundwater protection standard has not been exceeded for a period of three consecutive years after corrective action has been terminated and this Agreement has been modified, in accordance with Agreement Condition II.J., to implement a compliance monitoring program pursuant to Agreement Condition V.D. or a detection monitoring program pursuant to Agreement Condition V.C., as required by ADEM Admin. Code Rule 335-14-5-.06(11)(f).

5. Sampling and Analysis Procedures

The MDA shall follow the approved Sampling and Analysis Plan for techniques and procedures to use when obtaining and analyzing samples from the groundwater monitoring wells described in Agreement Condition V.B.1. to provide a reliable indication of the quality of the groundwater as required under ADEM Admin. Code Rules 335-14-5-.06(8)(d), (e), and (g).

6. Recordkeeping and Reporting

- a. The MDA shall keep and maintain all monitoring, testing, and analytical data obtained in accordance with Agreement Conditions V.B., V.C., V.D., and V.E. as required by Agreement Condition II.C.10.
- b. The MDA shall submit to the Department a written report to include all analytical sampling data, established background values, statistical evaluations, groundwater elevations, associated potentiometric maps, and the annual groundwater flow rate and direction determinations. The analytical method and the Method Detection Limit (MDL) for each constituent must be integrated into all reports of analysis. The report shall be submitted within 60 calendar days after the first sampling event and on an annual basis thereafter. Copies of this report shall be kept at the facility in accordance with Agreement Conditions II.C.10.c. and II.C.10.e.
- c. The MDA shall submit progress reports to the Department describing implementation of groundwater monitoring and/or corrective action activities at the site as required by Part V of this Agreement on a quarterly basis. The first progress report shall be submitted to the Department within 90 calendar days after the effective date of this Agreement. The progress reports shall continue until such time as the required monitoring and/or corrective action systems and activities required by this Agreement are fully constructed and operational. In the event that additional monitoring and/or corrective action requirements are imposed through an Agreement modification, the quarterly reporting requirement shall resume, commencing upon the effective date of the Agreement modification and continuing until the required monitoring and/or corrective action systems and activities are again fully constructed and operational.

V.C. DETECTION MONITORING PROGRAM

The requirements of this Agreement Condition are applicable to groundwater sites listed in Table V.1. Except as specified otherwise in this Agreement, the Detection Monitoring Program shall be implemented in accordance with Condition V.C. of the Agreement and ADEM Admin. Code Rule 335-14-5-.06(9).

1. Monitoring Requirements

In addition to the general groundwater monitoring requirements specified in Agreement Condition V.B.2., the MDA shall:

- a. Sample all point of compliance wells and analyze for the constituents listed in Table V.2. of this Agreement, in accordance with applicable CMI Plans and Agreement Condition V.B.5.
 - b. Sample all background and point of compliance monitoring wells and analyze for temperature (degrees F or C), specific conductance (Mhos/cm), and pH (standard units) each time the well is sampled in accordance with Agreement Condition V.B.5. The data obtained should be submitted as raw data in the reports required by Agreement Condition V.B.6.
 - c. Sample all designated background monitoring wells and analyze, in accordance with Agreement Condition V.B.5., for the constituents listed in Table V.2. of this Agreement in all monitoring events.
2. Reporting and Response Requirements

In addition to the recordkeeping and reporting requirements specified in Agreement Condition V.B.6:

- a. The MDA shall determine whether there is statistically significant evidence of contamination above background levels at each monitoring well within 45 calendar days after completion of each sampling event. The statistical evaluation of monitoring well analytical data shall be performed pursuant to Agreement Condition V.B.5. and ADEM Admin. Code Rule 335-14-5-.06(9)(f).
- b. If the MDA determines, pursuant to Agreement Condition V.C.2.a., that there is statistically significant evidence of contamination above background levels for any chemical parameters or hazardous constituents listed in Table V.2. of this Agreement at any monitoring well at the point of compliance, he or she must comply with ADEM Admin. Code R. 335-14-5-.06(10)(d).

V.D. COMPLIANCE MONITORING PROGRAM

The requirements of this Agreement Condition are applicable to groundwater sites listed in Table V.1. Except as specified otherwise in this Agreement, the Compliance Monitoring Program shall be implemented in accordance with Condition V.D. of the Agreement and ADEM Admin. Code Rule 335-14-5-.06(10).

1. Monitoring Requirements

In addition to the general groundwater monitoring requirements specified in Agreement Condition V.B.2., the MDA shall:

- a. Sample all point of compliance wells and background wells and analyze for the constituents listed in Table V.2. of this Agreement, on a semi-annual basis in accordance with Agreement Condition V.B.5. throughout the compliance monitoring period. This schedule shall begin within 120 calendar days of the effective date of this Agreement.

- b. Sample and analyze for temperature (degrees F or C), specific conductance (Mhos/cm), and pH (standard units), at all background and point of compliance monitoring well locations each time the well is sampled in accordance with Agreement Condition V.B.5. The data obtained should be submitted as raw data in the reports required by Agreement Condition V.B.6.
- c. Sample all point of compliance and background wells and analyze, in accordance with Agreement Condition V.B.5., for the constituents listed in ADEM Admin. Code Rule 335-14-5-Appendix IX, at the beginning of the compliance period and thereafter on an annual basis throughout the compliance period.

2. Reporting and Response Requirements

In addition to the recordkeeping and reporting requirements specified in Agreement Condition V.B.6., the MDA shall perform statistical evaluation of monitoring well analytical data for each monitoring event pursuant to Agreement Condition V.B.5. and ADEM Admin. Code Rule 335-14-5-.06(10)(d).

- a. If the MDA determines, pursuant to Agreement Conditions V.D.1.c. and V.B.5. and ADEM Admin. Code Rules 335-14-5-.06(10)(d) and 335-14-5-.06(10)(g), that any constituent(s) listed in ADEM Admin. Code Rule 335-14-5-Appendix IX but not listed in Table V.2. of this Agreement is detected at any point of compliance or background well, he or she must comply with ADEM Admin. Code R. 335-14-5-.06(10)(g).
- b. If the MDA determines pursuant to Agreement Conditions V.B.5. and V.D.1. and ADEM Admin. Code Rule 335-14-5-.06(10)(d) that any concentration limits listed in Table V.3. of this Agreement is exceeded in any monitoring well at the point of compliance, he or she must comply with ADEM Admin. Code R. 335-14-5-.06(10)(h).

V.E. CORRECTIVE ACTION MONITORING PROGRAM

The requirements of this Agreement Condition are applicable to groundwater sites listed in Table V.1. Except as specified otherwise in this Agreement, the Corrective Action Monitoring Program shall be implemented in accordance with Condition V.E. of the Agreement and ADEM Admin. Code Rule 335-14-5-.06(11).

1. Monitoring Systems

In addition to the point of compliance and background monitoring well systems identified in Agreement Conditions V.B.1.b. and V.B.1.c., the MDA shall:

- a. Maintain groundwater monitoring wells identified as “BDY wells” as boundary wells for their respective SWMUs, AOC, sites and/or parcels as specified in Table V.1. of this Agreement.
- b. Maintain groundwater monitoring wells identified as “EFF wells” as effectiveness wells as specified in Table V.1. of this Agreement.

- c. Maintain wells identified as “REC wells” as recovery wells as specified in Table V.1. of this Agreement.
- d. Maintain wells identified as “POC wells” as point of compliance wells as specified in Table V.1. of this Agreement.

2. Corrective Action Program

- a. The MDA shall conduct a Corrective Action Program, as described in Condition V.E.2. of the Agreement, to remove or treat in place all hazardous constituents that exceed their respective groundwater protection standards as described in Table V.3. of this Agreement at the point of compliance, between the point of compliance and the down-gradient facility property boundary, and beyond the facility boundary in accordance with ADEM Admin. Code Rule 335-14-5-.06(11)(e)2.
- b. Pursuant to ADEM Admin. Code Rules 335-14-5-.06(11)(c) and 335-14-5-.06(11)(e)3., the MDA shall continue to implement the corrective action program as described in Condition V.E.2. of the Agreement within 120 calendar days after the effective date of this Agreement.
- c. The MDA shall handle or treat groundwater in accordance with Condition V.E.2. of the Agreement and with the applicable requirements of any other permits held by MDA (e.g., NPDES, UIC).

3. Monitoring Requirements

In addition to the general groundwater monitoring requirements specified in Agreement Condition V.B.2., the MDA shall:

- a. Sample all upgradient, point of compliance and effectiveness monitoring wells shown in Table V.1. of this Agreement and analyze for the constituents listed in Table V.2. of this Agreement in accordance with applicable CMI Plans and continuing through the end of the compliance period.
- b. Sample all background, point of compliance, effectiveness, and boundary monitoring wells shown in Table V.1. of this Agreement and analyze for the constituents listed in Table V.2. of this Agreement at frequencies listed in Table V.1. and continuing through the end of the compliance period.
- c. Sample all background, point of compliance, effectiveness, and boundary monitoring wells shown in Table V.1. of this Agreement and analyze for temperature (degrees F or C), specific conductance (Mhos/cm), and pH (standard units) each time the well is sampled. The data obtained should be submitted as raw data in the reports required by Agreement Condition V.B.6.
- d. When evaluating the monitoring results to determine the effectiveness of the corrective measures, in accordance with Agreement Condition V.E.4., the MDA shall:
 - i. Determine if the corrective action system effectively addresses the entire plume of contamination;

- ii. Determine if the concentration of the hazardous constituents are decreasing (pH increasing or decreasing toward neutrality, as applicable) in the effectiveness wells specified in Agreement Condition V.E.1.;
- iii. Determine if hazardous waste or hazardous constituents are being released into the environment; and,
- iv. Determine if hazardous constituents have been detected in the boundary wells specified in Agreement Condition V.E.1.

4. Reporting and Response Requirements

In addition to the recordkeeping and reporting requirements specified in Agreement Condition V.B.6.:

- a. The MDA shall report the effectiveness of the corrective action program in accordance with applicable CMI Plans, as required under ADEM Admin. Code Rule 335-14-5-.06(11)(g). These reports shall be submitted to the Department within 60 calendar days of each sampling event after corrective action is initiated and continue until corrective action is completed. The MDA must provide data from groundwater monitoring along with an analysis of that data and any conclusions regarding the effectiveness of the program in accordance with Agreement Condition V.E.3.d. If the analysis of the data warrants any change to the corrective action program, the MDA must include these revisions in the annual report, which will be followed-up within 90 calendar days with an application for Agreement modification in accordance with Agreement Condition II.J.
- b. If corrective action is terminated under Agreement Condition V.B.4.c., the MDA must sample all background, point of compliance, effectiveness and boundary sampling locations for the compounds listed in ADEM Admin. Code Rule 335-14-5-Appendix IX. Based upon the sampling results, the MDA may petition the Department, in accordance with Agreement Condition II.J., for an Agreement modification to implement either a detection monitoring program or a compliance monitoring program.

TABLE V.1.

MONITORING WELL DESIGNATIONS

WELL NUMBER	WELL TYPE*	WELL EASTING	WELL NORTHING	UNIT(S)/ PARCEL(S) MONITORED	WELL DEPTH (ft BTOC)	GROUND ELEVATION (ft MSL)	TOP-OF-CASING ELEVATION (ft MSL)	SCREENED INTERVAL (ft bgs)	MONITORED ZONE	SAMPLING FREQUENCY
CWM-183-MW04	EFF	670379.99	1166413.59	T6: 183(6), 510(7) ¹	23.81	798.34	800.51	12 - 22	Residuum	Annually
CWM-183-MW07	EFF	670284.13	1166508.69	T6: 183(6), 510(7) ¹	19.35	798.83	800.93	8 - 18	Residuum	Annually
CWM-183-MW08	EFF	670223.00	1166595.78	T6: 183(6), 510(7) ¹	20	796.74	798.76	8 - 18	Residuum	Annually
CWM-183-MW09	EFF	670164.19	1166490.93	T6: 183(6), 510(7) ¹	27.6	806.95	809.18	15 - 25	Residuum	Annually
CWM-183-MW11	EFF	670248.95	1166405.24	T6: 183(6), 510(7) ¹	102.61	807.07	809.25	80 - 100	Bedrock	Annually
CWM-183-MW13	EFF	670384.91	1166423.87	T6: 183(6), 510(7) ¹	58	799.6	801.81	41 - 56	Bedrock	Annually
CWM-183-MW15	EFF	670473.69	1166608.85	T6: 183(6), 510(7) ¹	25.49	790.82	793.21	13 - 23	Residuum	Annually
CWM-183-MW16	EFF	670477.23	1166600.16	T6: 183(6), 510(7) ¹	86.41	790.88	793.13	74 - 84	Bedrock	Annually
CWM-183-MW17	EFF	670374.62	1166723.23	T6: 183(6), 510(7) ¹	46.6	788.6	790.78	40.5 - 45.5	Bedrock	Annually
CWM-183-MW20	EFF	670210.79	1166594.56	T6: 183(6), 510(7) ¹	77.8	796.41	798.81	66 - 76	Bedrock	Annually
CWM-183-MW21	EFF	670085.25	1166492.38	T6: 183(6), 510(7) ¹	41.58	811.7	813.92	24 - 39	Residuum	Annually
CWM-183-MW22	EFF	670080.79	1166485.50	T6: 183(6), 510(7) ¹	65.75	812.28	814.59	53 - 63	Bedrock	Annually
CWM-183-MW23	EFF	670206.41	1166328.50	T6: 183(6), 510(7) ¹	51.19	819.93	822.28	30 - 50	Residuum	Annually
FTA-94-MW03	EFF	673200.15	1168564.57	CL: 94(7) ²	22.9	784.57	786.49	6 - 21	Residuum	Annually
FTA-94-MW06	PGM	673318.48	1168265.17	CL: 94(7) ²	27.7	787.84	789.78	5.5 - 20.5	Bedrock	Annually
FTA-94-MW11	EFF	673090.77	1168303.58	CL: 94(7) ²	70.3	804.82	806.79	57.2 - 67.2	Bedrock	Annually
FTA-94-MW12	EFF	673203.52	1168556.63	CL: 94(7) ²	93.3	785.13	787.16	81.1 - 91.1	Bedrock	Annually
FTA-94-MW13	EFF	673052.85	1168275.09	CL: 94(7) ²	128.2	805.89	808.06	116 - 126	Bedrock	Annually

WELL NUMBER	WELL TYPE*	WELL EASTING	WELL NORTHING	UNIT(S)/ PARCEL(S) MONITORED	WELL DEPTH (ft BTOC)	GROUND ELEVATION (ft MSL)	TOP-OF-CASING ELEVATION (ft MSL)	SCREENED INTERVAL (ft bgs)	MONITORED ZONE	SAMPLING FREQUENCY
FTA-94-MW14	PGM	673025.20	1168071.00	CL: 94(7) ²	75.0	807.44	807.2	65 - 75	Bedrock	Annually
FTA-94-MW15	EFF	673049.12	1168571.48	CL: 94(7) ²	47.1	793.14	795.19	35 - 45	Bedrock	Annually
FTA-94-MW16	EFF	673064.25	1168583.05	CL: 94(7) ²	93.4	790.99	793	81.4 - 91.4	Bedrock	Annually
OLF-G12	POC	668532.57	1180548.61	LF3: 80(6), 229(7) ³	89.03	745.75	745.43	75 - 85	Transition	Semi-annually
OLF-G18	UPG	668221.39	1179816.25	LF3: 80(6), 229(7) ³	59.79	742.01	741.60	47 - 58	Transition	Semi-annually
OLF-G21	UPG	668211.45	1179811.73	LF3: 80(6), 229(7) ³	171.89	742.76	742.57	154.6 - 169.6	Bedrock	Semi-annually
OLF-G22	POC	668533.46	1180564.97	LF3: 80(6), 229(7) ³	182.23	746.67	746.54	155 - 170	Bedrock	Semi-annually
OLF-G23	POC	668706.61	1180966.40	LF3: 80(6), 229(7) ³	184.75	744.17	743.89	154.6 - 169.6	Bedrock	Semi-annually
OLF-G24	POC	668712.87	1180979.87	LF3: 80(6), 229(7) ³	95.96	743.9	743.56	79.6 - 94.6	Transition	Semi-annually
OLF-G31	PGM	667801.64	1181368.91	LF3: 80(6), 229(7) ³	220	794.25	793.69	205 - 225	Bedrock	Semi-annually
OLF-G32	PGM	667802.78	1181351.14	LF3: 80(6), 229(7) ³	299.5	793.64	793.41	271 - 291	Deep Bedrock	Semi-annually
OLF-G35	POC	668721.98	1180999.58	LF3: 80(6), 229(7) ³	269.91	743.4	742.82	245 - 260	Deep Bedrock	Semi-annually
OLF-G36	POC	668520.27	1180534.17	LF3: 80(6), 229(7) ³	258	746.74	746.09	243.8 - 258.8	Deep Bedrock	Semi-annually
OLF-G47	POC	669269.84	1182261.42	LF3: 80(6), 229(7) ³	328.74	717.4	717.46	302 - 322	Bedrock	Semi-annually
OLF-G48	POC	669265.97	1182252.11	LF3: 80(6), 229(7) ³	397.81	717.6	717.63	385 - 405	Deep Bedrock	Semi-annually
OLF-G52	PGM	669262.79	1182604.47	LF3: 80(6), 229(7) ³	377	723.99	723.83	357 - 377	Deep Bedrock	Semi-annually
OLF-G70	POC	669486.27	1182777.19	LF3: 80(6), 229(7) ³	416.86	722.11	722.11	390 - 400	Deep Bedrock	Semi-annually
PPMP-229-GP12	UPG	670548.85	1180817.85	LF3: 80(6), 229(7) ³	174.1	741.47	743.79	156 - 166	Bedrock	Semi-annually
LF4-MW1	POC	669625.24	1180041.40	LF4: 81(5), 175(5) ⁴	42.3	737.13	739.79	15 - 40	Residuum	Semi-annually
LF4-MW2	POC	670492.09	1180244.72	LF4: 81(5), 175(5) ⁴	41.05	738.5	741.5	6 - 36	Residuum	Semi-annually
LF4-MW3	POC	671013.49	1180197.72	LF4: 81(5), 175(5) ⁴	34.35	739.78	742.78	11 - 31	Residuum	Semi-annually
LF4-MW4	POC	671522.80	1179683.63	LF4: 81(5), 175(5) ⁴	26.85	743.35	746.35	5 - 25	Residuum	Semi-annually
LF4-MW5	UPG	669848.75	1178487.41	LF4: 81(5), 175(5) ⁴	34.71	753.32	756.32	12 - 32	Residuum	Semi-annually
PPMP-66-MW02RR	POC	671450.77	1171597.99	SWR: 66(7) ⁵	29.81	780.64	780.19	9 - 24	Residuum	Annually
PPMP-66-MW06R	POC	671518.34	1171555.76	SWR: 66(7) ⁵	28.53	780.81	780.56	8.5 - 28.5	Residuum	Annually
PPMP-66-MW08	POC	671449.35	1171611.84	SWR: 66(7) ⁵	72.2	780.88	780.69	61.1 - 71.1	Bedrock	Annually
PPMP-66-MW16	POC	671428.16	1171623.48	SWR: 66(7) ⁵	13.15	780.74	779.89	3 - 13	Residuum	Annually
PPMP-66-MW17	POC	671563.77	1171560.70	SWR: 66(7) ⁵	20	781.23	781.44	10.0 - 19.54	Transition	Annually

WELL NUMBER	WELL TYPE*	WELL EASTING	WELL NORTHING	UNIT(S)/ PARCEL(S) MONITORED	WELL DEPTH (ft BTOC)	GROUND ELEVATION (ft MSL)	TOP-OF-CASING ELEVATION (ft MSL)	SCREENED INTERVAL (ft bgs)	MONITORED ZONE	SAMPLING FREQUENCY
PPMP-66-MW18R	POC	671550.89	1171559.60	SWR: 66(7) ⁵	15.91	781.31	781.08	5.0 - 14.54	Residuum	Annually
PPMP-66-MW23R	POC	671453.05	1171596.48	SWR: 66(7) ⁵	23.36	781.78	780.55	19.87 - 29.41	Transition	Annually
PPMP-66-MW24R	POC	671515.35	1171555.64	SWR: 66(7) ⁵	34.84	781.88	780.70	24.95 - 34.49	Transition	Annually

Notes:

ft bgs = feet below ground surface
ft BTOC = feet below top of casing
ft MSL = feet above mean sea level

- 1 T6: 183(6) & 510(7) = Training Area T-6, 183(6) and Cane Creek Training Area, 510(7)
- 2 CL: 94(7) = Chemical Laundry and Motor Pool Area 1500, 94(7)
- 3 LF3: 80(6), 229(7) = Landfill 3, 80(6) and Fill Area Northwest of Reilly Airfield, 229(7)
- 4 LF4: 81(5), 175(5): Landfill 4, 81(5) and Industrial Landfill, 175(5)
- 5 SWR: 66(7) = Small Weapons Repair Shop, 66(7)

* Well Type:

- POC - Point of Compliance Wells
- EFF - Effectiveness Monitoring Wells
- PGM - Piezometers and/or General Monitoring Wells
- UPG - Upgradient Well

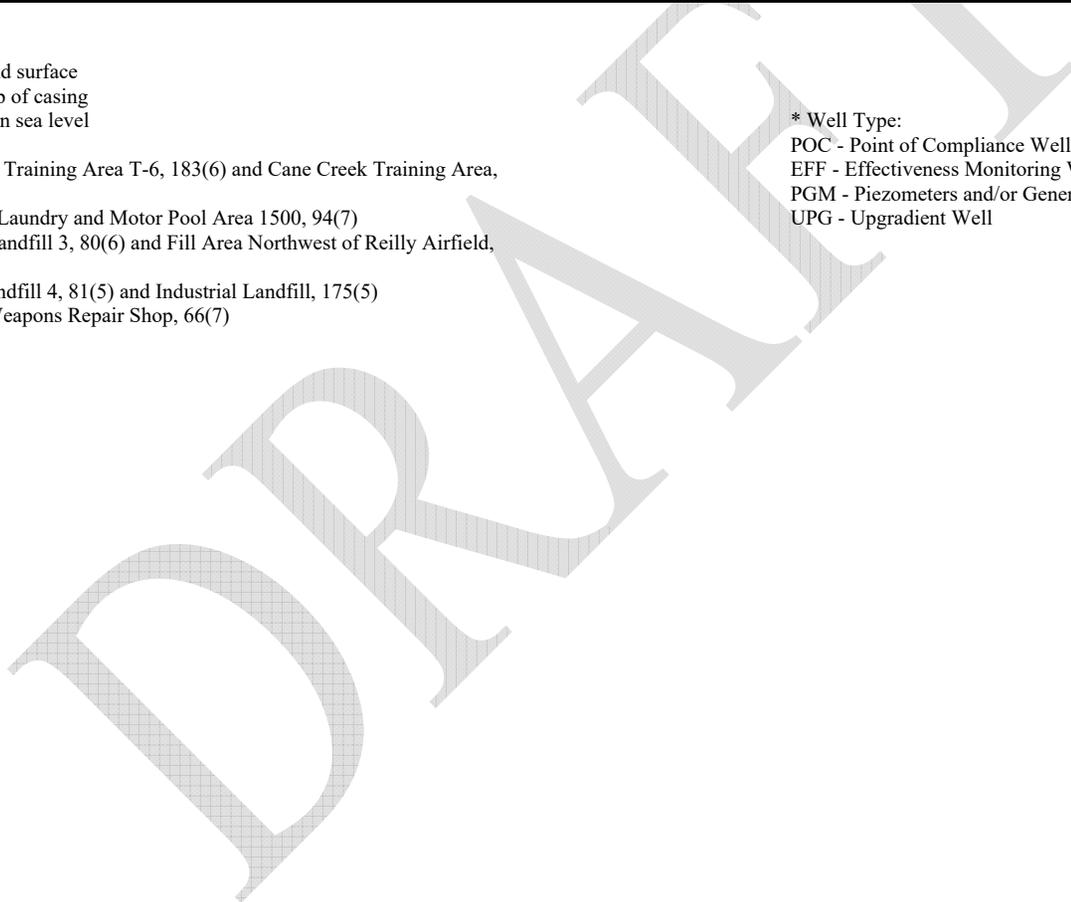


TABLE V.2.

GROUNDWATER QUALITY MONITORING CONSTITUENTS

HAZARDOUS CONSTITUENT	UNIT*
1,1,2,2-Tetrachloroethane	T6: 183(6), 510(7) ¹ ; LF3: 80(6), 229(7) ³
1,1,2-Trichloroethane	T6: 183(6), 510(7) ¹ ; LF3: 80(6), 229(7) ³
1,2-Dichloroethane ^a	LF3: 80(6), 229(7) ^{3,a}
Benzene ^a	LF3: 80(6), 229(7) ^{3,a}
Chlorobenzene	CL: 94(7) ²
Chloroform	T6: 183(6), 510(7) ¹
cis-1,2-Dichloroethene	CL: 94(7) ² ; LF3: 80(6), 229(7) ^{3,a} ; SWR: 66(7) ⁴
Naphthalene ^a	LF3: 80(6), 229(7) ^{3,a}
Tetrachloroethene	T6: 183(6), 510(7) ¹ ; LF3: 80(6), 229(7) ³
trans-1,2-Dichloroethene	CL: 94(7) ²
Trichloroethene	T6: 183(6), 510(7) ¹ ; CL: 94(7) ² ; LF3: 80(6), 229(7) ³ ; SWR: 66(7) ⁴
Vinyl chloride	CL: 94(7) ² ; LF3: 80(6), 229(7) ³ ; SWR: 66(7) ⁴
Heptachlor Epoxide ^a	LF3: 80(6), 229(7) ^{3,a}
Alpha-BHC ^a	LF3: 80(6), 229(7) ^{3,a}
Beta-BHC ^a	LF3: 80(6), 229(7) ^{3,a}
Antimony ^b	LF4: 81(5) ^{5,b}
Arsenic ^b	LF4: 81(5) ^{5,b}
Barium ^b	LF4: 81(5) ^{5,b}
Beryllium ^b	LF4: 81(5) ^{5,b}
Cadmium ^b	LF4: 81(5) ^{5,b}
Chromium ^b	LF4: 81(5) ^{5,b}
Cobalt ^b	LF4: 81(5) ^{5,b}
Copper ^b	LF4: 81(5) ^{5,b}
Lead ^b	LF4: 81(5) ^{5,b}
Mercury ^a	LF3: 80(6), 229(7) ^{3,a}
Mercury ^b	LF4: 81(5) ^{5,b}
Nickel ^a	LF3: 80(6), 229(7) ^{3,a}
Nickel ^b	LF4: 81(5) ^{5,b}
Selenium ^b	LF4: 81(5) ^{5,b}
Silver ^b	LF4: 81(5) ^{5,b}
Tin ^b	LF4: 81(5) ^{5,b}
Thallium ^b	LF4: 81(5) ^{5,b}
Vanadium ^b	LF4: 81(5) ^{5,b}
Zinc ^b	LF4: 81(5) ^{5,b}

The constituents listed herein are the subset of the Groundwater Protection Standard listed in Table V.3. for which monitoring is required.

* Identifies the unit(s) at which the given constituent must be monitored.

1 T6: 183(6) & 510(7) = Training Area T-6, 183(6) and Cane Creek Training Area, 510(7)

2 CL: 94(7) = Chemical Laundry and Motor Pool Area 1500, 94(7)

3 LF3: 80(6), 229(7) = Landfill 3, 80(6) and Fill Area Northwest of Reilly Airfield, 229(7)

4 SWR: 66(7) = Small Weapons Repair Shop, 66(7)

5 LF4: 81(5) = Landfill 4, 81(5)

a Constituent is an ancillary COC for LF3: 80(6), 229(7) that had a maximum concentration between the 10⁻⁶ to 10⁻⁵ risk range or a hazard quotient ranging from 0.1 to 1. Ancillary COCs are not expected to materially affect remedy requirements, but will be addressed during performance monitoring by analyzing for them in a subset of monitoring wells for a limited number of sampling events to ensure that the groundwater remedy comprehensively addresses risk reduction. If cumulative risk objectives are met, they will be dropped from further consideration, and ongoing performance monitoring will focus on the primary COCs (i.e., hazardous constituents) for LF3: 80(6), 229(7).

b Constituent is part of the Assessment Monitoring list of analytes for LF4: 81(5), derived from the Appendix II list of the ADEM Admin. Code Rule 335-13-4-.27 and described in the Assessment Monitoring Program Plan dated February 4, 2010.

TABLE V.3.

GROUNDWATER PROTECTION STANDARD

UNIT*	HAZARDOUS CONSTITUENT	CONCENTRATION LIMIT (mg/L)
T6: 183(6), 510(7) ¹	1,1,2,2-Tetrachloroethane	0.0136 (GS RBTL)
	1,1,2-Trichloroethane	0.0502 (GS RBTL)
	Chloroform	0.986 (GS RBTL)
	Tetrachloroethene	0.00443 (GS RBTL)
	Trichloroethene	0.205 (GS RBTL)
CL: 94(7) ²	Chlorobenzene	0.10 (MCL)
	cis-1,2-Dichloroethene	0.070 (MCL)
	trans-1,2-Dichloroethene	0.10 (MCL)
	Trichloroethene	0.005 (MCL)
	Vinyl Chloride	0.002 (MCL)
SWR: 66(7) ⁴	cis-1,2-Dichloroethene	0.991 (GS RBTL)
	Trichloroethene	0.205 (GS RBTL)
	Vinyl Chloride	0.00386 (GS RBTL)
LF3: 80(6), 229(7) ^{3,a}	1,1,2,2-Tetrachloroethane	0.0136 (GS RBTL)
	1,1,2-Trichloroethane	0.0502 (GS RBTL)
	1,2-Dichloroethane ^a	0.0308 (GS RBTL)
	Benzene ^a	0.0479 (GS RBTL)
	cis-1,2-Dichloroethene ^a	0.991 (GS RBTL)
	Naphthalene ^a	1.59 (GS RBTL)
	Tetrachloroethene	0.00443 (GS RBTL)
	Trichloroethene	0.205 (GS RBTL)
	Vinyl Chloride	0.00386 (GS RBTL)
	Heptachlor Epoxide ^a	0.000247 (GS RBTL)
	Alpha-BHC ^a	0.000425 (GS RBTL)
	Beta-BHC ^a	0.00148 (GS RBTL)
	Mercury ^a	0.029 (GS RBTL)
	Nickel ^a	2.02 (GS RBTL)
LF4: 81(5) ^{5,b}	Antimony ^b	intrawell statistical comparison ^c
	Arsenic ^b	intrawell statistical comparison ^c
	Barium ^b	intrawell statistical comparison ^c
	Beryllium ^b	intrawell statistical comparison ^c
	Cadmium ^b	intrawell statistical comparison ^c
	Chromium ^b	intrawell statistical comparison ^c
	Cobalt ^b	intrawell statistical comparison ^c
	Copper ^b	intrawell statistical comparison ^c
	Lead ^b	intrawell statistical comparison ^c
	Mercury ^b	intrawell statistical comparison ^c
	Nickel ^b	intrawell statistical comparison ^c
	Selenium ^b	intrawell statistical comparison ^c
	Silver ^b	intrawell statistical comparison ^c
	Tin ^b	intrawell statistical comparison ^c
Thallium ^b	intrawell statistical comparison ^c	
Vanadium ^b	intrawell statistical comparison ^c	
Zinc ^b	intrawell statistical comparison ^c	

* Identifies the unit(s) at which the given constituent must be monitored.

COC = Constituent of concern

GS RBTL = Groundskeeper Risk-Based Target Level (10-5 Risk) derived from updated toxicological properties provided in the Alabama Risk-Based Corrective Action Guidance Manual (ADEM, May 2006) and using protocols outlined in the Human Health and Ecological Screening Values and PAH Background Summary Report (IT Corporation, 2000).

MCL – Maximum Contaminant Level

1 T6: 183(6), 510(7) = Training Area T-6, 183(6) and Cane Creek Training Area, 510(7) (Document Reference: Item 26 in Table I.2.)

2 CL: 94(7) = Chemical Laundry and Motor Pool Area 1500, 94(7) (Document Reference: Item 4 in Table I.2.)

3 LF3: 80(6), 229(7) = Landfill 3, 80(6) and Fill Area Northwest of Reilly Airfield, 229(7) (Document Reference: Item 12 in Table I.2.)

4 SWR: 66(7) = Small Weapons Repair Shop, 66(7) (Document Reference: Item 42 in Table I.2.)

5 LF4: 81(5) = Landfill 4, 81(5) (Document Reference: Item 48 in Table I.2.)

a Constituent is an ancillary COC for LF3: 80(6), 229(7) that had a maximum concentration between the 10⁻⁶ to 10⁻⁵ risk range or a hazard quotient ranging from 0.1 to 1. Ancillary COCs are not expected to materially affect remedy requirements, but will be addressed during performance monitoring by analyzing for them in a subset of monitoring wells for a limited number of sampling

events to ensure that the groundwater remedy comprehensively addresses risk reduction. If cumulative risk objectives are met, they will be dropped from further consideration, and ongoing performance monitoring will focus on the primary COCs (i.e., hazardous constituents) for LF3: 80(6), 229(7).

- b Constituent is part of the Assessment Monitoring list of analytes for LF4: 81(5), derived from the Appendix II list of the ADEM Admin. Code Rule 335-13-4-.27 and described in the Assessment Monitoring Program Plan dated February 4, 2010 (Item 48 in Table I.2.).
- c Constituent is monitored to meet permit requirements. The groundwater protection standard is an intrawell statistical comparison (Shewhart Cumulative Sums) performed using control charts in accordance with ADEM Admin. Code Rule 335-13-4-.27 of the ADEM Division 13 Regulations.

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PART VI

LAND USE CONTROLS AND ENVIRONMENTAL COVENANTS

VI.A. LAND USE CONTROLS (LUCs)

ADEM Admin. Code Rule 335-5-1-.03(i) defines LUCs as any restriction or control that serves to protect human health and the environment by limiting the use of or exposure to any portion of a property or site, including water resources. These controls include, but are not limited to: engineering controls, institutional controls, and water use restrictions.

1. Engineering controls for remedial actions are directed toward containing or controlling the migration of contaminants through the environment. These include, but are not limited to, stormwater conveyance systems, slurry walls, liner systems, caps, leachate collection systems, pump and treat systems and groundwater recovery systems. Engineering controls are classified as:
 - a. Class 1, which include multi-layer caps or liner systems, soil vapor extraction systems, groundwater pump-and-treat systems, leachate and groundwater recovery systems, stormwater conveyance systems, slurry walls and active ventilation of closed spaces.
 - b. Class 2, which include clay or soil caps or liner systems, substructural vapor barriers and passive ventilation of closed spaces.
 - c. Class 3, which include asphalt caps and fencing systems.
 - d. For other engineering controls not listed, ADEM shall determine the classification of the engineering control upon the request of an owner or operator or other responsible person.
2. Institutional controls are legal or contractual restrictions on property use which remain effective after remediation is completed and are used to meet an approved remediation plan or proposal. These include, but are not limited to, deed notations, deed restrictions, water use restrictions, restrictive covenants, conservation easements, and limited development rights. Institutional controls are classified as:
 - a. Class 1, which includes any water use restriction.
 - b. Class 2, which include restrictive covenants for industrial or commercial use only or no schools or daycares, and imposition of conservation easements or limited developmental rights.
 - c. Class 3, which include restrictive covenants for no excavations, for use as greenspace only and no hunting or fishing.

- d. For other institutional controls not listed, ADEM shall determine the classification of the institutional control upon the request of an owner or operator or other responsible person.

For the corrective actions being undertaken by the MDA hereunder at the Facility (e.g., for SWMUs, AOCs, Sites, and/or Parcels) for which land use controls or other restrictions are imposed by this Agreement, the enforcement of such LUCs or restrictions will continue for as long as said LUCs are necessary to protect human health and the environment, or in perpetuity from the date of initial Agreement issuance, unless the Department approves removal of LUCs for unrestricted site use.

VI.B. ALABAMA UNIFORM ENVIRONMENTAL COVENANTS ACT (UECA)

On May 26, 2009, ADEM promulgated regulations to establish minimum requirements governing environmental covenants pursuant to the Alabama Uniform Environmental Covenants Act, Code of Alabama 1975, §§ 35-19-1 to 35-19-14. ADEM Admin. Code R. 335-5 is located on the ADEM website and applies to all sites that are not remediated to unrestricted use. Therefore, it is required that a covenant request, including appropriate information, be submitted along with the CMI Plan prior to approval of the final remedy as discussed further in Agreement Condition IV.B.6.

VI.C. REPORTING REQUIREMENTS FOR LUCs

In addition to the reporting requirements discussed in Agreement Condition IV.B.9., the MDA shall also provide the following information: the date of inspection of LUCs, any deficiencies observed during inspections, any records that were reviewed, the frequency of inspections, and specific documentation of the LUCs implemented at the site (e.g. provide details regarding fence height, types of signage, etc.).

VI.D. INSPECTION REQUIREMENTS FOR LUCs

In addition to the inspection requirements discussed in Agreement Condition IV.B.8., the MDA shall also inspect landfill caps on an annual basis, signage and fencing on an annual basis, covenant records at the courthouse on an annual basis and any other inspection criteria established in the approved CMI plan.

Table VI.1.

The following table presents a list of the Parcels, Sites, SWMUs and/or AOCs that require land use controls and environmental covenants. Site Identifiers and descriptions correspond with those listed in the Final Environmental Baseline Survey, Volumes I & II, Fort McClellan, Alabama, January, 1998, prepared by ESE. Where discrepancies exist, the Agreement will take precedence.

It is noted that this Agreement addresses requirements for SWMUs and/or AOCs which include areas previously identified as Sites/Parcels, etc. via the CERCLA/BRAC process. Although certain items have historically been developed and/or completed using different titles or names, it is not the intent of the Parties to restart the investigation and remediation process from the beginning, but rather to continue the on-going process under this Agreement.

a. List of Parcels, Sites, SWMUs and/or AOCs Requiring Land Use Controls and Environmental Covenants:

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
81(5)	Landfill 4	MDA	Inspect and maintain cap; Residential use prohibited; Surface use only. Digging or excavation is not allowed; Use of groundwater is prohibited; Groundwater well installation prohibited; Monuments and signs installed	IV.C.2.A.	FY-23-01.00 Calhoun County, Alabama Book 3332 Pages 305-314	2/23/2024	4/1/2024

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
175(5)	Industrial Landfill	MDA	Inspect and maintain cap; Residential use prohibited; Surface use only. Digging or excavation is not allowed; Groundwater well installation prohibited; Monuments and signs installed	IV.C.2.B.	FY-23-01.00 Calhoun County, Alabama Book 3332 Pages 305-314	2/22/2024	4/1/2024
127(7)	Former Washrack, Soldier's Chapel, Building 1740	MDA	Contact with groundwater not allowed; Groundwater well installation prohibited	IV.C.2.C.	FY-12-03.00 Calhoun County, Alabama Book 3150 Pages 660-672	9/18/2012	9/21/2012
229(7)	Fill Area Northwest of Reilly Airfield	MDA	Maintain cap; Residential use prohibited; Digging or excavation prohibited; Groundwater wells shall not be disturbed; Groundwater well installation prohibited; Monuments and signs inspected and maintained	IV.C.2.J. IV.C.2.I.	FY-11.01.00 Calhoun County, Alabama Book 3140 Pages 261-272	9/21/2011	9/23/2011
126(7)	Former Post Garbage Dump						
227(7)	Fill Area East of Reilly Airfield						
GT/Y	Golden Triangle and Y Area: M1.01 Parcel, M3 Miscellaneous Property and Eastern Bypass "Y" Area Junction	MDA	MDA will provide construction support for M1.01, M3 and "Y" Area Junction	IV.C.2.E.	FY-17-03.00 Calhoun County, Alabama Book 3235 Pages 343-359	7/3/2018	7/11/2018

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
79(6)	Landfill 2	MDA	Inspect and maintain landfill cap; Residential use prohibited; Digging and excavation prohibited; Groundwater well installation prohibited; Monuments and signs inspected and maintained	IV.C.2.P.	FY-12-05.00 Calhoun County, Alabama Book 3151, Pages 718-727	10/5/2012	10/17/2012
S Alpha	Cemetery and Bains Gap Road	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.D.	FY-15-02.00 Calhoun County, Alabama Book 3194 Pages 233- 244A	9/29/2015	10/5/2015
MRS-1	South Side of Bains Gap Road in Bravo Area: Portion of M4-1H Mixed Use Area – PR	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.Y.	FY-15-01.00 Calhoun County, Alabama Book 3194 Pages 219-232	9/29/2015	10/5/2015
83Q	Baby Bains Gap Road Ranges: Range 25: Known Distance (KD) Range	MDA	Residential use prohibited	IV.C.2.Y.	FY-15-01.00 Calhoun County, Alabama Book 3194 Pages 219-232	9/29/2015	10/5/2015
118Q-X	Baby Bains Gap Road Ranges: Former Main Post Impact Area (Range 25 backstop)						

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
2(4)	UST @ GSA Motor Pool, Bldg 238	MDA	Contact with groundwater not allowed; Groundwater monitoring well installation prohibited; Commercial or industrial development only except area marked in Exhibit B of covenant	IV.C.2.F.	FY-12-04.01 Calhoun County, Alabama Book 3297 Pages 679-704	3/9/2022	3/16/2022
3(4)	UST @ Telephone Exchange, Bldg 251						
4(4)	POL point, Bldg 265						
67(4)	Former Battery Maintenance Area, Bldg 234						
69(4)	Washrack, Bldg 253						
91(4)	Former Dry Cleaning Area, Bldg T-233						
111(4)	Former Multi Craft Shop, Bldg 245						
128(4)	Former Washrack @ Nielsen St.						
129(4)	Washrack, near Bldg T-222						
151(4)	GSA Warehouse Area						
238(4)	UST @ Former Gas Station, near Bldg 234						
78(6)	Landfill 1	MDA	Inspect and maintain landfill cap; Residential use prohibited; Digging and excavation prohibited; Groundwater well installation prohibited; Monuments and signs inspected and maintained	IV.C.2.O.	FY-12-02.00 Calhoun County, Alabama Book 3151, Pages 708-717	10/5/2012	10/17/2012
183(6)	Training Area T-6: Former Agent Decontamination Training	MDA	Contact with groundwater not allowed; Public access and use of the property not allowed for any purpose pending remedy completion; Groundwater well installation prohibited; Groundwater wells shall not be disturbed	IV.C.2.Q.	FY-12-06.00 Calhoun County, Alabama Book 3156 Pages 817-826	3/4/2013	3/7/2013
510(7)	Training Area T-6: Cane Creek Training Area						

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
MRS-9	Tracts 9-B, 9-C and 9-D	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.H.	FY-18-03.00 Calhoun County, Alabama Book 3227 Pages 392-403	12/21/2017	12/28/2017
24(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)	MDA	Groundwater use not allowed; Groundwater well installation prohibited	IV.C.2.G.	FY-12-03.00 Calhoun County, Alabama Book 3150 Pages 660-672	9/18/2012	9/21/2012
25(7)	Motor Pool Area 3100: UST @ Bldg 3138 (near Poly Inst)						
73(7)	Motor Pool Area 3100: Washrack, Bldg 3142 (near Poly Inst)						
146(7)	Motor Pool Area 3100: (near Poly Inst)						
212(7)	Motor Pool Area 3100: UST @ Bldg 3138, (near Poly Inst)						
66(7)	Small Weapons Repair Shop	MDA	Contact with groundwater not allowed; Groundwater well installation prohibited; Groundwater wells shall not be disturbed	IV.C.2.R.	FY-12-07.00 Calhoun County, Alabama Book 3156 Pages 827-836	3/4/2013	3/7/2013
230Q-X	Anti-Tank Range	MDA	OA-03 - Residential use prohibited; Parcels 186(6), 230Q-X and 149Q - Public access and use of property for any purpose not allowed pending remedy completion; Parcels 186(6), 230Q-X, 149Q and MRS-13 - Use of groundwater is prohibited for; MRS-13 - Digging is prohibited in areas not cleared to depth	IV.C.2.M., IV.C.2.K., IV.C.2.N., IV.C.2.L.	FY-12-01.01 Calhoun County, Alabama Book 3228 Pages 892-910	2/5/2018	2/9/2018
149Q	Anti-Tank Range: Former Rifle Range						
186(6)	Training Area T-38						
MRS-13 Tracts A and B	Portion of M6-1M Transect Area 1 (South), M6-1M Suspect Area (South) – PR and Supplemental EECA ST-1, ST-2 and ST-3						
OA-03	Former Pistol Range						

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
80(6)	Landfill 3	MDA	Maintain cap; Residential use prohibited; Contact with groundwater not allowed; Digging or disturbance of soil not allowed; Groundwater well installation prohibited; Monuments and signs inspected and maintained	IV.C.2.T.	Pending	Pending	Pending
230(7)	Fill Area North of Landfill 2	MDA	Inspect and maintain landfill cap; Residential use prohibited; Digging or excavation prohibited; Groundwater well installation prohibited	IV.C.2.U.	FY-13-01.00 Calhoun County, Alabama Book 3173 Pages 92-103	4/14/2014	4/18/2014
94(7)	Chemical Laundry and Motor Pool Area 1500	MDA	Contact with groundwater not allowed; Groundwater well installation prohibited; Groundwater wells shall not be disturbed	IV.C.2.S.	FY-12-08.00 Calhoun County, Alabama Book 3177 Pages 894-903	8/4/2014	8/13/2014
MRS-5	Tracts 5-D and 5-E	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.V.	FY-16-01.00 Calhoun County, Alabama Book 3200 Pages 650-664	3/16/2016	3/22/2016
MRS-6	Tracts 6-A and 6-B	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.W.	FY-16-02.00 Calhoun County, Alabama Book 3200 Pages 637-649	3/16/2016	3/22/2016

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
MRS-11	Tract 11-B exclusion area three feet of either side and underneath Industrial Access Road	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.X.	FY-17-02.00 Calhoun County, Alabama Book 3222 Pages 222-231	8/25/2017	8/31/2017
MRS-12	Tracts 12-A, 12-B, 12-C and 12-D	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.Z	FY-16-03.00 Calhoun County, Alabama Book 3200 Pages 665-676	3/16/2016	3/22/2016
MRS-2	Tracts 2-D, 2-F, 2-H, 2-J, Industrial Access Road, Cassell Way, Town Center Drive and Halifax Avenue	MDA	Digging prohibited without construction support in areas not cleared to depth and along roadways	IV.C.2.AA	FY-17-01.00 Calhoun County, Alabama Book 3221 Pages 870-891	8/7/2017	8/24/2017
MRS-4	Tract 4-E, 4-F and 4-G	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.BB	FY-17-04.00 Calhoun County, Alabama Book 3222 Pages 232-243	8/25/2017	8/31/2017
MRS-3	Tracts 3-A, 3-B, 3-C and 3-D	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.CC	FY-18-01.00 Calhoun County, Alabama Book 3227 Pages 366-380	12/21/2017	12/28/2017
MRS-8	Tracts 8-D and 8-E	MDA	Digging prohibited without construction support in areas not cleared to depth	IV.C.2.DD	FY-18-02.00 Calhoun County, Alabama Book 3227 Pages 381-391	12/21/2017	12/28/2017

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
87Q-X	Range 29: Weapons Demonstration Range	MDA	Residential use prohibited; Use of groundwater is prohibited	IV.C.2.EE	Pending	Pending	Pending
110Q	Range 29: Former Rifle Range						
111Q	Range 29: Former Rifle Range						
239Q-X	Range 29: Impact Area, Central Main Post						
69Q	Iron Mountain Road Ranges: Skeet Range	MDA	Use of groundwater prohibited. Parcels 69Q, 71Q, 75Q, 221Q-X and 222Q-X - residential use prohibited. Parcel 70Q - residential, commercial and industrial use prohibited.	IV.C.2.FF	Pending	Pending	Pending
70Q	Iron Mountain Road Ranges: Range 12: Competitive Pistol Range						
71Q	Iron Mountain Road Ranges: Range 13: Qualification Pistol Range						
75Q	Iron Mountain Road Ranges: Range 19: Qualification Pistol Range						
221Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (Impact Area) N. of Washington Ranges						
222Q-X	Iron Mountain Road Ranges: Former Rifle Grenade Range (at Skeet Range)						

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
79Q	Baby Bains Gap Road Ranges: Range 23: Trainfire (Record) Range	MDA	Residential use prohibited; Use of groundwater is prohibited	IV.C.2.GG	Pending	Pending	Pending
86Q	Baby Bains Gap Road Ranges: Range 28: Blank Fire and Maneuver Range						
223Q	Baby Bains Gap Road Ranges: Former Range 25: East Rifle Range						
227Q	Baby Bains Gap Road Ranges: Former Pistol Range						
88Q	Range 30: End of Cycle Test Range ((Impact Area)	MDA	Use of groundwater prohibited; Residential use prohibited; Residential, commercial and industrial use prohibited within areas identified on covenant boundary map	IV.C.2.HH	Pending	Pending	Pending
103Q	Range 30: Former Rifle/Machine Gun Range						
100Q	Impact Area South of Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges	MDA	Use of groundwater prohibited; Residential use prohibited; Residential, commercial and industrial use prohibited within areas identified on covenant boundary map	IV.C.2.II	Pending	Pending	Pending
101Q							

CERFA PARCEL #	DESCRIPTION***	RESPONSIBLE PARTY	LUC SUMMARY****	SECTION REFERENCE	COVENANT LAND RECORD FILING LOCATION*	COVENANT EFFECTIVE DATE*	COVENANT FILING DATE*
84Q-X	Baby Bains Gap Road Ranges: Range 26: Live Fire and Maneuver Area	MDA	Use of groundwater prohibited; Residential use prohibited; Groundwater well installation prohibited	IV.C.2.JJ	Pending	Pending	Pending
224Q	Baby Bains Gap Road Ranges: Former Pistol Range S. of R25 – East						
226Q	Baby Bains Gap Road Ranges: Former Machine Gun Range						

CERFA: Community Environmental Response Facilitation Act
GT/Y: Golden Triangle/Y Area
MRS: Munitions Response Site

*The Land Record Filing Location column refers to the Book/Plat/Page recording location in the Land Records at the local courthouse. The Covenant Effective Date refers to the date the covenant is signed by all parties. The Covenant Filing Date refers to the date the covenant is filed at the courthouse.

**Industrial Landfill is a regulated unit under ADEM Admin. Code R. 335-13 and Solid Waste Permit 08-02; therefore, land use control and remedy requirements would be identified at the time of unit closure and in consideration of permit requirements.

*** LUC Description column provides a general description of the covenant boundary for the LUCs. For full details of the LUC requirements, please refer to Section Reference column and/or Covenant.

**** LUC Summary column provides a summary of LUCs only. For full details of LUC requirements, please refer to Section Reference column and/or Covenant.

In addition to the land use controls and environmental covenants identified in Table VI.1.a. above, it is noted that a “Deed Notice” regarding the “historical use” of the entire Site as a “Former Military Installation” is required by the thirteen (13) quitclaim deeds from the Army to the local reuse authority (LRA), as described in Table VI.1.b. Such required language is set forth as follows: “Fort McClellan is a former military installation with a history of the use of munitions and explosives of concern (“MEC”) and, therefore, there is a potential for such MEC to be present on the property. In the event the JPA, its successors and assigns, and any grantees of property from the JPA should discover any MEC on the property, it shall not attempt to remove or destroy it, but shall immediately notify the local police department. A competent Government or Government designated MEC disposal professional will be promptly dispatched to dispose of such MEC properly.” This deed notice is required to be placed on all future deeds for property which was part of any of the deeds listed below.

b. List of Quitclaim Deeds:

DEED NUMBER	DATE OF RECORDING	DEED BOOK NUMBER	PAGE NUMBER
Quitclaim Deed 1	12/20/2000	Book 3002	Page 369
Quitclaim Deed 2	12/20/2000	Book 3002	Page 346
Quitclaim Deed 3	02/14/2001	Book 3004	Page 117
Quitclaim Deed 4	07/25/2001	Book 3009	Page 456
Quitclaim Deed 5	02/14/2002	Book 3016	Page 790
Quitclaim Deed 6	05/14/2002	Book 3020	Page 196
Quitclaim Deed 7	05/14/2002	Book 3020	Page 280
Quitclaim Deed 8	03/10/2003	Book 3031	Page 517
Quitclaim Deed 9	08/06/2003	Book 3036	Page 795
Quitclaim Deed 10	08/26/2003	Book 3037	Page 798
Quitclaim Deed 11	08/26/2003	Book 3037	Page 819
Quitclaim Deed 12	09/19/2003	Book 3038	Page 728
Quitclaim Deed 13	10/01/2003	Book 3039	Page 291
Quitclaim Deed 14	10/11/2005	Book 3068	Page 234
Quitclaim Deed 15	01/04/2013	Book 3154	Page 599
Quitclaim Deed 16	03/01/2021	Book 3276	Page 972
JPA to MDA	04/01/2010	Book 3125	Page 275
MDA to City of Anniston	03/17/2025	Book 3347	Page 298

PART VII

SUMMARY OF DEADLINES

The summary information provided herein is intended only as a guide to the requirements of this Agreement. It is not intended to be all inclusive, nor is it intended to be used as a substitute for the full text of this Agreement.

AGREEMENT CONDITION	ITEM	DUE DATE
II.C.12.	Give notice to the Department of any planned physical alterations or additions to the permitted facility and any solid waste management units.	As soon as possible
II.C.12.	Report any noncompliance with this Agreement that may endanger human health or the environment.	Orally within 24 hours from the time the MDA becomes aware of the circumstances. Written submission shall also be provided within 5 calendar days of the time that the MDA becomes aware of the circumstances
II.G.	Waste Minimization Certification	Annually
II.H.2. and 4.	Update cost estimates	No later than 30 calendar days after the Department has approved a modification to the Closure Plan, Post-Closure Plan, or Corrective Action Plan, or any other plan required or referenced by this Agreement, if the change in the plan results in an increase in the amount of the cost estimate and annually as required by ADEM Admin. Code Rule 335-14-5-.08(3)(b), (5)(b), and (10)(b)
II.J.	Submit a written request for an Agreement modification pursuant to the requirements of ADEM Admin. Code Rule 335-14-8-.04(2).	At least 60 calendar days prior to a proposed change in facility design or operation.
III.B.2.	Notify the Department, in writing, of the discovery of any additional SWMUs	Within 15 calendar days of discovery
III.B.4.	Submit an SAR for each SWMU identified under III.B.2.	Within 90 calendar days of notification.
III.C.1.	Notify the Department, in writing, of any newly discovered release(s) of hazardous waste or hazardous constituents from SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means.	Within 15 calendar days of discovery
III.D.7.	Submit quarterly RFI progress reports.	Quarterly basis following the initiation of the RFI

AGREEMENT CONDITION	ITEM	DUE DATE
III.D.8.	Submit RFI Report	Within 90 calendar days from the completion of investigation activities.
III.E.2.	Submit CMI Plan	Within 180 calendar days following the submittal of an RFI Report, or within 180 calendar days following submittal of a final feasibility study/CMS if required by the Army or the MDA, or within 180 calendar days following notification from the Department that a CMI Plan is required, whichever occurs earlier.
III.E.3.	Demonstrate financial assurance for completing the approved remedy.	Within 120 calendar days after this Agreement has been modified in accordance with Agreement Condition III.E.3.
III.F.3.	Submit IM Report	Within 90 calendar days of completion of IM.
IV.B.5.a.	Submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of the SWMUs, AOCs, sites, parcels and capped or partially remediated areas with respect to permanently surveyed benchmarks, the locations of sampling points, and the concentrations of hazardous constituents detected	Within 90 calendar days following the effective date of an Agreement modification addressing remedy selection.
IV.B.6.	Record in the probate judge's office an environmental covenant that will in perpetuity notify any potential purchaser of the property that the land is contaminated with hazardous constituents that exceed residential standards, the use of the property is restricted and the purchaser must notify the MDA before work is conducted in the contaminated area. Applicable certifications and fees should be submitted to ADEM.	No later than the submission of the survey plat required in Condition IV.B.5.a.
IV.D.3.	Begin submitting semi-annual CM Effectiveness Reports if required	180 calendar days following the Department's approval of the Final CMI Report
IV.D.4.	Submit a Final Report of Corrective Measures (FRCM)	Within 90 calendar days following attainment of cleanup levels/goals

PART VIII
SIGNATORIES

The undersigned warrant that they are authorized to bind legally their respective principals to this Agreement. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all which shall constitute one and same Agreement.

Edward F. Poolos
Director
Alabama Department of Environmental Management

Date _____

Tim Garner
Chairman
McClellan Development Authority

Date _____

DRAFT



283 Rucker Street
Anniston, Alabama 36205
Phone: 256.847.0780
Fax: 256.847.0905
matrixdesigngroup.com

August 19, 2019

Mr. Jason Wilson, Chief
C/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: *Final Site-Specific Addendum Corrective Measures Implementation Plan – Iron Mountain Road Ranges; dated April 2019, revised August 6, 2019
Fort McClellan, Calhoun County, Alabama Facility I.D. No. AL4210020562*

Dear Mr. Wilson:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit the Final document incorporating revisions to the Alabama Department of Environmental Management (ADEM) review and concurrence dated August 14, 2019 regarding the *Site Specific Addendum Corrective Measures Implementation Plan – Iron Mountain Road Ranges, Skeet Range (Parcel 69Q), Range 12 (Parcel 70Q), Range 13 (Parcel 71Q), Range 19 (Parcel 75Q), Former Rifle Grenade Range, North of Washington Ranges (Parcel 221Q-X), Former Rifle Grenade Range at Skeet Range (Parcel 222Q-X), Fort McClellan Anniston, Alabama*, dated April 2019, revised August 6, 2019 for your review.

Two hard copies and one electronic copy will be sent via email to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC

A handwritten signature in black ink that reads "Richard Satkin".

Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (one electronic and two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)



**Site Specific Addendum Corrective Measures Implementation Plan –
Iron Mountain Road Ranges**

Skeet Range (Parcel 69Q)

Range 12 (Parcel 70Q)

Range 13 (Parcel 71Q)

Range 19 (Parcel 75Q)

Former Rifle Grenade Range, North of Washington Ranges (Parcel 221Q-X)

Former Rifle Grenade Range at Skeet Range (Parcel 222Q-X)

**Fort McClellan
Anniston, Alabama**

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

Prepared by:



283 Rucker Street, Bldg. 3165

Anniston, Alabama 36205

(256) 847-0780

Fax (256) 847-0905

April 2019

Revised August 2019

**Site Specific Addendum Corrective Measures Implementation Plan –
Iron Mountain Road Ranges**

Skeet Range (Parcel 69Q)

Range 12 (Parcel 70Q)

Range 13 (Parcel 71Q)

Range 19 (Parcel 75Q)

Former Rifle Grenade Range, North of Washington Ranges (Parcel 221Q-X)

Former Rifle Grenade Range at Skeet Range (Parcel 222Q-X)

**Fort McClellan
Anniston, Alabama**

Prepared for:



MCCLELLAN
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Fax (256) 847-0905

**April 2019
Revised August 2019**

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Appendix A Key Figures from the Remedial Investigation Report

List of Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AEIRG	Alabama Environmental Investigation & Remediation Guidance
ALDOT	Alabama Department of Transportation
amsl	above mean sea level
Army	United States Department of the Army
ASR	Archives Search Report
BERA	Baseline Ecological Risk Assessment
bgs	below ground surface
CA	Cleanup Agreement
CFR	Code of Federal Regulations
CMIP	Corrective Measures Implementation Plan
CMIR	Corrective Measures Implementation Report
COC	Contaminants of Concern
EARPC	East Alabama Regional Planning Commission
EBC	Eastern Bypass Corridor
EBS	Environmental Baseline Survey
ESE	Environmental Science & Engineering, Inc.
ft	feet
FTMC	Fort McClellan
HHRA	Human Health Risk Assessment
in	inch
IMRR	Iron Mountain Road Ranges
LUCs	Land Use Controls
m	meter
Matrix	Matrix Environmental Services, LLC.
MDA	McClellan Development Authority
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
mm	millimeter
MRS	Munitions Response Site
NFA	No Further Action
RBTLs	Residential Risk Based Target Levels
RCRA	Resource Conservation and Recovery Act
RI	Remedial investigation
Shaw	Shaw Environmental Inc.
Skeet Range	Skeet Range and Former Rifle Grenade at Skeet Range
SSA	Site Specific Addendum
Site	Former Fort McClellan
SWCMIP	Site Wide Corrective Measures Implementation Plan
US	United States
USACE	United States Army Corps of Engineers
UXO	unexploded ordnance
WWII	World War II

1 PROJECT DESCRIPTION

1.1 Introduction

This Site Specific Addendum (SSA) to the Site-Wide Corrective Measures Implementation Plan (CMIP) for Soil Remediation (SWCMIP) was prepared by Matrix Environmental Services, LLC. (Matrix) for the McClellan Development Authority (MDA) to address soil remediation at the Iron Mountain Road Ranges (IMRRs). The IMRRs consist of the Skeet Range, Parcel 69Q; Former Rifle Grenade Range at Skeet Range, Parcel 222Q-X; Range 19 - Qualification Pistol Range, Parcel 75Q; Range 13 - Qualification Pistol Range, Parcel 71Q; Range 12 - Competitive Pistol Range, Parcel 70Q; Former Rifle Grenade Range North of Washington Ranges, Parcel 221Q-X, hereafter collectively referred to as Site or Ranges. The purpose of this document is to provide specific information related to the soil contamination at the IMRRs that will be used to address the characterization, removal, and disposal of metals impacted soils and sediment from these ranges.

The Ranges were part of the United States (US) Department of the Army (Army) normal operations at Fort McClellan (Site) and are located along the western boundary of the Site Main Post in Anniston, Alabama (see **Figure 1**). These Ranges were primarily used for small arms weapons training, which include ammunition calibers up to 0.50 caliber. Several of the ranges were constructed on land that may previously have been used for other types of ordnance training. Bullets and bullet fragments have been found on the ground surface at some of these ranges. Munitions and explosives of concern (MEC) clearance was performed to a depth of one foot in most of the areas in these Ranges.

1.2 General Information

Facility Name/Alias:	Fort McClellan
Facility Address:	Fort McClellan, Calhoun County, Alabama
Facility ID (If EPA ID has been issued):	AL4210020562
Facility Contact:	Robin Scott McClellan Development Authority 4975 Bains Gap Road Anniston, Alabama 36205 (256) 236-2011
Geographic Coordinates:	33° 42' 17.82" N, 85° 46' 07.31" W
Type of Facility:	Former Army Training Installation
Size of Facility:	42,286 acres
Facility Location Map	See Figure 1
Facility Site Map:	See Figure 2
Current Owner:	McClellan Development Authority
Years of Operation:	2010 to Present
Former Owner:	Fort McClellan Development Joint Powers Authority
Years of Operation:	1999-2010
Former Owner:	United States Department of the Army
Years of Operation:	1917-1999 (See Section 2.1)

1.3 Corrective Measures Objectives and Scope

The Cleanup Agreement (CA), Part IV, between the Alabama Department of Environmental Management (ADEM) and MDA (ADEM, 2014) requires that MDA perform corrective measures implementation at the IMRRs. The objective of these corrective measures is to incorporate a mixture of soil remediation activities and land use controls (LUCs) to address metals-impacted soils (surface and subsurface) and sediment. While performing this removal, MDA has elected to stabilize any soils failing toxicity characteristic leaching procedure within these ranges to obtain approval for disposal as non-hazardous waste. The specific cleanup levels for these former firing ranges are based on human health and ecological cleanup levels, 400 or 500 milligrams per kilogram (mg/kg) for lead, respectively. These corrective measures will also include the abandonment of all monitoring wells associated with the IMRRs in accordance MDA’s Monitoring Well Abandonment Plan (Matrix 2015).

LUCs will be necessary upon completion of the corrective measures implementation due to the one-foot clearance of MEC in Tracts 3-A and 3-B, as well as areas of soil that may contain metals concentrations greater than the residential use limit at the completion of remediation activities. The LUCs will be implemented by MDA in accordance with the CA, please see section 4.3.2 for additional details.

The scope of these corrective measures is to remove all Contaminants of Concern (COCs) from the IMRRs to meet either the ecological remediation standards or residential standards depending on whether or not the remediation is within a one-foot MEC clearance area. Ecological remediation standards will be used for the remediation within the one-foot MEC clearance areas and residential standards used elsewhere. Based on the analytical data presented in the Remedial Investigation (RI) Report (Shaw, 2009), lead is the predominant contaminant at the ranges consistent with their use for small arms training and will be the focus of the corrective measures. Further details are provided on COCs and cleanup levels are provided in Section 3.1 and Section 4.1.1, respectively.

1.3.1 *Summary of the Need for Corrective Action*

As identified in the CA (ADEM, 2014), the MDA is responsible for performing corrective measures at the Site Ranges through the use of soil remediation activities and applicable LUCs.

1.3.2 *Summary of Major Goals of Corrective Action*

The overall purpose of this corrective action is to identify the procedures that will be used to excavate; stabilize, as necessary; and dispose of metals-contaminated surficial soils from within these Ranges. The Ranges will be remediated to ecological or residential cleanup levels for metals based on the future land use of the property and the prior MEC cleanup approach.

1.3.3 *List of Major Components of the Plan*

There are six major components of the technical approach of this remedial project:

- A treatability study may be performed to identify the best stabilization formulation,
- Delineation of the horizontal and vertical extent of impacted soils,
- Excavation of treated and untreated soils that exceed cleanup levels,
- In-situ stabilization of soils that could exceed the Resource Conservation and Recovery Act (RCRA) toxicity characteristics,
- Backfill of all remediated areas in one-foot MEC clearance areas to pre-excavation elevations, and
- Transportation of excavated soils to the designated disposal facility.

1.3.4 Summary of How the Planned Action will Achieve Goals

The Range soils will be characterized and removed as needed to achieve the residential or ecological standards. Pre- and post-excavation confirmation samples will be collected to verify that targeted areas meet the cleanup levels. Further details of these activities are in subsequent sections of this CMIP addendum. All excavated areas in the one-foot MEC areas will be backfilled with clean soil to the pre-excavation topography. The use of LUCs will be necessary at the Ranges following the completion of remediation activities due to presence of constituents in soils above human health residential standards, a potential for MEC presence, or if another as yet unidentified condition exists at the Ranges. Final LUCs and their extent cannot be fully identified until the completion of the remediation activities. The final LUCs shall be submitted under separate cover after the completion of the corrective measures.

2 SITE CHARACTERIZATION

2.1 Site Description and Operational History

2.1.1 *Site Description and History of the IMRRs*

The IMRRs are located in the western portion of the Main Post, north and east of US Highway 431 and south of Summerall Gate Road. The western facing slopes of hills form the primary range boundary to the east. The following sections contain information adapted from the RI Report (Shaw, 2009). Key figures from the RI Report showing the nature and extent of contamination are included in Appendix A.

2.1.1.1 *Skeet Range, Parcel 69Q, and Former Rifle Grenade Range at Skeet Range, Parcel 222Q-X*

According to the Environmental Baseline Survey (EBS) (ESE, 1998), the Skeet Range was constructed in 1988 and was in operation until October 1998. The Skeet Range (approximately 13 acres) was built on land formerly used as a rifle grenade range (Parcel 222Q-X). The area of the former rifle grenade range, approximately 1.7 acres, is completely encompassed by the 13-acre Skeet Range and, therefore, has not been separately investigated. Base personnel used the Skeet Range for clay skeet-and-trap shooting competition. Historically, weapons fired at the range consisted of 410-gauge, 12-gauge, 20- gauge, and 28-gauge shotguns. The Archives Search Report (ASR) indicated that the Skeet Range is within the impact zone of two unexploded ordnance (UXO) ranges: the rifle grenade range (Parcel 222Q-X) and the former Combat Range #2 (USACE, 2001a). Combat Range #2 was used from the inter-war period until 1958, and the weapons used there included grenades (rifle), rockets, and machine guns. Because of prior site use and proximity to these historical ranges, UXO items (2.36-inch (in) rockets and World War II (WWII)-era rifle grenades) have been found in and around the Skeet Range area, particularly in the northern half of the range.

The range includes two sets of concrete firing lines with a total of 14 firing points, with a direction of fire to the east and southeast. The western slope of Sunset Hill (rising over 100 feet (ft) above the range floor) serves as the main impact zone for the range. The range also included three concrete block houses for throwing skeet and one concrete trap bunker, a range office, covered picnic/shelter areas, and latrines. All range structures except for the concrete firing lines have been demolished and removed since base closure.

2.1.1.2 *Range 19, Parcel 75Q*

The EBS (ESE, 1998) stated that Range 19, the Qualification Pistol Range, was constructed in 1976 and was in operation until October 1998. This range was used by Army personnel as the primary small- arms training range. Historically, weapons fired at the range primarily consisted of pistol (9-millimeter [mm], .38-caliber, and .45-caliber) and shotgun rounds. The ASR reported that this range was constructed during the Vietnam War and was initially used as a 10-meter (m) machine gun range but was later converted to small arms training. Although the ASR stated that no further action (NFA) was required for UXO, some items have been found at Range 19 during investigation activities, including WWII rifle grenades in the northern portion of the range and several 37-mm projectiles found along the top of the hillside impact zone.

The total Range 19 site, including its extensive range safety fan, occupies 1,529 acres. However, the area of investigation was limited to an approximately 12-acre area encompassing the range proper (i.e., firing line, range floor, and impact area). This area includes an open firing area with gravel firing lines spaced at 7, 10, 25, and 35 m from the target zone located against the base of the hillside (rising over 50 ft above the range floor). Army range maintenance activities introduced several cuts into the hillside, resulting in its "3- tier" appearance. The direction of fire was to the east, into the hillside.

2.1.1.3 Range 13, Parcel 71Q

As described in the EBS (ESE, 1998), Range 13, the Qualification Pistol Range, was constructed in 1951 and operated until October 1998. This range was most recently used for small arms training by U.S. Marine Corps personnel stationed at Fort McClellan (FTMC). Historically, weapons fired at the range consisted of 9-mm pistols and unidentified machine guns. FTMC Base Regulation 350-2 states .22- to .45- caliber pistols, 9-mm pistols, .22-caliber rifles, and 12-gauge shotguns were fired at Range 13. Spent rifle cartridge casings have been found at Range 13, indicating some larger caliber rifle firing may have also occurred. There is some evidence that this area may have been used as a machine gun range in the 1960s. The ASR does not describe this range as a UXO area, and UXO was not found by Shaw Environmental Inc. (Shaw) personnel during site investigation activities. No UXO was recovered in this area during the remediation of munitions response site (MRS) -3 by Matrix.

The total Range 13 site, including its extensive range safety fan, encompasses 549 acres. However, the area of investigation was limited to an approximately 5-acre area encompassing the actual range proper (i.e., firing line, range floor, and impact area). Range 13 included a 20-station, covered firing line that was 120 ft long and located 35 m west of an electrified target line. The firing lines and target lines were removed from the range in 1999. The direction of fire at Range 13 was easterly, towards the target line and a small soil berm that serves as the main impact zone for this portion of the range. The small soil berm is located immediately behind the electrified target line (approximately 25 to 30 ft further downrange). Approximately 150 ft further east of the berm, a secondary impact zone is formed by the hillside. Both impact zones contain bullets and fragments on the ground surface.

Immediately to the south of the existing covered firing line, depressions were found in the soil that indicated a second covered firing line previously existed. The approximate length of this structure was 180 ft. In addition to the depressions on the ground, two large signs are located on the hillside to the east, indicating the northern and southern limits of the range. The presence of bullets and fragments on the hillside correspond to the location of these signs.

Several outbuildings and supporting structures were included at Range 13. These buildings, which were removed in 1999, have been identified as a target house, range tower, two concrete pads/foundations that may have been former structures, and sheds. Site access is via a semicircular gravel road that connects the firing line area to IMRR on the north and to Range 12 on the south.

In 2004, United States Army Corps of Engineers (USACE)-Huntsville completed its UXO clearance of the Eastern Bypass Corridor (EBC). To facilitate property transfer from the Army to ALDOT, a soil removal action was conducted at a small portion of Range 13 to address the metals-impacted site surface soils within the ALDOT property with lead concentrations above the industrial cleanup goal of 880 mg/kg. A more detailed description of the work performed is provided in Section 2.1.1.4 below.

2.1.1.4 Range 12, Parcel 70Q

The EBS (ESE, 1998) indicates that Range 12 was constructed in 1951 and was operational until October 1998. When the range was built, it was first listed as "Range 14" and was described as the "1,000-in range." By 1967, the range was renamed Range 12, the Competitive Pistol Range. Historically, weapons fired at the range consisted of 9-mm pistols and unidentified machine guns. FTMC Base Regulation 350-2 states .22 to .45-caliber pistols, 9-mm pistols, .22-caliber rifles, and .12-gauge shotguns were fired at Range 12. Interviews conducted with long-term FTMC employees for the EBS (ESE, 1998) indicated that an area around Range 12 and Range 13 was used as a machine gun range in the 1960s. A map, dated 1966, confirms the interview reports identifying a range in the vicinity of Range 12 and Range 13 as a "Machine gun range, 30 m, Basic."

The total Range 12 site, including its extensive range safety fan, consists of 311 acres. However, the area of investigation was limited to an approximately 5-acre area encompassing the actual range proper (i.e., firing line, range floor, and impact area). The site details for Range 12 include a (formerly) covered concrete firing line located 35 m from the base of the hill that serves as the main target zone/bullet impact area for the range. This firing line is 275 ft in length and parallels Iron Mountain Road, traversing the site north-to-south. The covering and concrete foundation has been demolished and removed from the range. Four additional firing lines, at 25 m, 15 m, and 7 m from the target zone, parallel the 35-m firing line. Nine outbuildings and supporting structures were included at Range 12. These buildings, which were removed in 1999, have been identified as latrines, a target house, two concrete pads/foundations that may have been former structures, covered bleachers, and sheds. The main target zone/bullet impact area consists of the westerly facing slopes of Baltzell Hills rising over 100 ft above the range floor. Much of the Range 12 area has been cleared for the EBC (ESE, 1998) and was used as a staging area for UXO operations by USACE- Huntsville.

In 2004, USACE-Huntsville completed its UXO clearance of the EBC (ESE, 1998). To facilitate property transfer of the EBC from the Army to ALDOT, a soil removal action was conducted at on the western 2/3 of Range 12 to address the metals-impacted site surface soils within the ALDOT property with lead concentrations above the industrial cleanup goal of 880 mg/kg. The work plan for this soil removal was prepared in August 2004. Shaw conducted the soil removal in stages from November 2004 through March 2006 (Shaw, 2006). A total of 5,500 cubic yards of material was excavated from an area of approximately 0.6 acre from depths ranging from 1 to 3 ft below surface. The excavated contaminated soil was stabilized on site with portland cement, characterized, and disposed of as a special waste at the Onyx Waste Services landfill in Ragland, Alabama.

2.1.1.5 Former Rifle Grenade Range North of Washington Ranges, Parcel 221Q-X

According to the EBS (ESE, 1998), the sole source of information about this range is the 1946 FTMC Reservation Map. The parcel boundary outlined in the EBS (ESE, 1998) is 5.2 acres and is located northeast of Range 19. The ASR described the early use of this area before WWII as part of Combat Range #2, which was later subdivided during the war into several individual training ranges. The range was abandoned by 1958. The ASR also states that "the remnants of WWII vintage rifle grenades were found northeast of Range 19 on the south side of an old service road," which corresponds to the area of Parcel 221Q-X. Currently, this area is densely wooded and contains a tributary to Remount Creek.

This range lies in a shallow valley between Sunset Hill (approximately 950 ft above mean sea level (amsl) to the north and the unnamed hill (approximately 950 ft amsl) located directly west of the Range 19 impact zone to the south. An unimproved service road accessible from the Range 19 parking area provides access to Parcel 221Q-X.

2.2 Site Specific Geology, Soils, and Hydrogeology

Regional geology, soils, and hydrogeology information was presented in the SWCMIP. The information presented below was adapted from the RI (Shaw, 2009).

2.2.1 *Site-Specific Geology*

The IMRRs are located along the southwestern portion of the FTMC geologic window. Most of the IMRRs are underlain by the Shady Dolomite and the undifferentiated Chilhowee Group of the Jacksonville thrust sheet.

However, the western half of the Skeet Range and the western boundary of Range 19 are located within the geologic window and are underlain by the undifferentiated Floyd and Athens Shale and/or the undifferentiated Ordovician Little Oak and Newala Limestones. Besides the Jacksonville fault, which frames the FTMC geologic window, two additional thrust faults and an inferred fault were mapped within the IMRRs. The two thrust faults strike northeast-southwest, one crossing the southwest corner of Range 19 and the other crossing Ranges 12 and 13. The inferred fault parallels Remount Creek from just south of Range 19 through Ranges 12 and 13. The direction of movement associated with the inferred fault is unknown. The geologic data collected show alluvium and colluvium underlying a majority of the IMRRs. The alluvial and colluvial materials generally consist of light brown to brown to reddish brown to yellowish orange gravelly, sandy, silt and clay or gravelly, sand and clay. The gravel found within these soils generally consists of rounded to subangular pieces of quartzite, sandstone, and chert. Residuum is generally present beneath the alluvium and colluvium and varies depending on the parent material and degree of weathering. The residuum found underlying the alluvium and colluvium of all the IMRRs, except the western half of the Skeet Range and western boundary of Range 19, was derived from the Shady Dolomite and/or the undifferentiated Chilhowee Group. This residuum consists of a yellowish orange to light brown to brown to reddish brown, soft to stiff, laminated, sandy, silt and clay or hard laminated silt and clay with minor amounts of sand and gravel. Gravel in this residuum is generally sub-angular to angular and consists of quartzite, sandstone, and siltstone. The residuum underlying the western half of the Skeet Range and the western Boundary of Range 19 was derived from the undifferentiated Little Oak and Newala Limestones and the undifferentiated Floyd and Athens Shale. This residuum is primarily composed of yellowish orange to light brown to brown to light to dark gray silty clay, which grades into a weathered shale or limestone.

Competent bedrock was only encountered at two monitoring wells at the IMRRs (HR-69QMW02 and HR-70Q-MW02). The bedrock encountered at HR-69Q-MW02 is moderately hard, slightly weathered, crystalline, medium light gray limestone consistent with the undifferentiated Little Oak and Newala Limestones. The bedrock encountered at HR-70QMW02 is hard to very hard, moderately weathered, highly fractured, light brown fine-grained sandstone and quartzite consistent with members of the undifferentiated Chilhowee Group. A large clay-filled void was encountered in undifferentiated Little Oak and Newala Limestone bedrock at a depth ranging from approximately 59 to 77 ft below ground surface (bgs) at HR-69Q-MW02. Slickensides were noted on fracture surfaces in both bedrock cores, providing evidence for the faulting in this area.

2.2.2 Site-Specific Soil

Two soil types and one miscellaneous land type are mapped at the IMRRs. The Anniston and Allen gravelly loam is mapped across the majority of Range 19 and the eastern third of the Skeet Range. The Jefferson stony fine sandy loam is mapped across the remaining portion of the Skeet Range and along Remount Creek in portions of Ranges 13 and 19. The Stony rough land sandstone is mapped across all of Range 12 and almost all of Ranges 13 and 19, with the exception of the aforementioned portions of these ranges.

The Anniston and Allen gravelly loam is developed in old alluvium on the foot slopes and alluvial fans at the base of larger hills in the region. The surface soil ranges in color from very dark grayish brown to dark reddish gray and dark reddish brown. The subsoil consists of a dark reddish gray and dark reddish-brown clay or silty clay loam.

The Jefferson stony fine sandy loam is developed from old local alluvium derived from quartzite, sandstone, and shale. The surface soil is dark grayish brown and the subsoil consists of yellowish-brown, fine sandy clay. Cobble-size pieces of sandstone and quartzite are commonly found on the surface and throughout the soil profile.

The Stony rough land sandstone miscellaneous land type is found in rugged areas with steep relief where outcrops of sandstone and quartzite bedrock are common. The soil material consists of only a thin veneer of loose rock fragments and scattered patches of sandy soil.

2.2.6 Site-Specific Hydrogeology

Three separate water-bearing zones were identified beneath the IMRRs: shallow residuum, deep residuum, and bedrock. The shallow residuum water-bearing zone was encountered across all of the IMRRs at depths ranging from 21 to 47 ft bgs. The deep residuum waterbearing zone was encountered only at Range 19 in one well, HR-75Q-MW03. In bedrock wells, a water-bearing zone was encountered at the Skeet Range, Parcel 69Q (monitoring well HR- 69Q-MW02), but was absent or dry at Range 12, Parcel 70Q (monitoring well HR-70Q-MW02). The weak downward hydraulic gradient within well pair HR-69Q-MW01 and HR-69Q-MW02 suggests the shallow and bedrock water-bearing zones are interconnected in the area of the Skeet Range. However, the absence of groundwater beneath the shallow water-bearing zone at Ranges 12 and 13 and the difference in hydraulic head between the shallow and deep residuum waterbearing zones at Range 19 may suggest little communication with a deeper aquifer system in these areas. This is likely due in part to a hard, laminated silty clay interval, which forms an aquitard between the shallow and deeper water-bearing zones in these areas.

Review of a spring inventory map for Calhoun County did not reveal the presence of springs in the vicinity of the IMRRs. In addition, no springs or seeps were identified by Shaw at the IMRRs. However, based on the hydrologic and hydrogeologic setting of the IMRRs, the presence of seasonal seeps and small springs is likely.

2.3 Summary of Previous Investigations

A RI was performed for the Army identified the nature of contamination associated with the specific IMRRs. Below is a summary of additional plans/investigations/determinations performed at FTMC and a brief summary of those documents.

Sitewide Corrective Measures Implementation Plan – A CMIP was prepared to describe the methods and procedures that will be used to address the remediation of metals-impacted soils from all the former small arms firing ranges and other potential areas of concern located at the former FTMC in Calhoun County, Alabama. The CMIP describes the general remediation process that will be used to perform the remediation of these areas, including additional characterization, excavation, disposal, and restoration of the remediation sites. Specifics regarding the remediation process may be found in the *Site-Wide Corrective Measures Implementation Plan for Soil Remediation, Fort McClellan, Anniston, Alabama* (Matrix, 2017).

After Action Report, MRS-3 – MEC remediation at MRS-3 was conducted between March 2008 and January 2010 in accordance with the approved workplan. The IMRRs include portions of MRS-3, predominantly in Tracts 3-A and 3-B in the western portion of the Site. The MEC remediation tract boundaries are shown in **Figures 3 – 6**. Tracts 3-A and 3-B were cleared to a depth of one foot and are shaded in green in **Figures 3 – 6**. Tract 3-G was cleared to the depth of detection.

Additional details of the MEC remediation of MRS-3 can be found in the *Munitions and Explosives of Concern Remediation After Action Report, Munitions Response Site 3 (MRS-3), Bravo Munitions Response Area, McClellan, Anniston, Alabama*, (Matrix, 2018).

After Action Report, MRS-11 – MEC remediation at MRS-11 was conducted from January 2014 through August 2014. The southeast portion of Range 13, Parcel 71Q overlaps with MRS-11. This portion of MRS-11 was cleared to depth of detection. Additional details of the MEC remediation of MRS-11 can be found in the *Munitions and Explosives of Concern Remediation After Action Report, Munitions Response Sites 10 and 11, Bravo Munitions Response Area, McClellan, Anniston, Alabama*, (Matrix, 2016).

Final Environmental Baseline Survey – The Environmental Baseline Survey was prepared by Environmental Science & Engineering, Inc. (ESE) in 1998 to document the current environmental condition of FTMC. The EBS was conducted in accordance with the requirements of the Community Environmental Response Facilitation Act, amended Section 120 (h) of the Comprehensive Environmental Response, Compensation, and Liability Act.

Final Revision 0, Remedial Investigation Report, Iron Mountain Road Ranges was prepared by Shaw in May 2009. The RI included environmental sampling, monitoring well installation, and x-ray fluorescence soil screening. Sampling consisted of the collection and analysis of 120 surface and depositional soil samples, 37 subsurface soil samples, 6 groundwater samples, 9 surface water samples, and 9 sediment samples. Eight monitoring wells were installed at the IMRRs. Surface and some limited shallow subsurface soil contamination by lead and other metals associated with small arms ammunition was found; and, surface water and sediment matrices may have been impacted by historical site activities. Risk assessments indicated the contamination may pose a risk to human health and ecological receptors. In the RI Report it was recommended that a feasibility study be conducted to evaluate remedial alternatives.

Final Revision 2, Identification of Ecological Risk-Based Remedial Goals, Iron Mountain Road and Bains Gap Road Ranges – The Identification of Ecological Risk-Based Remedial Goals document (Shaw, 2010) incorporated baseline ecological risk assessments (BERA) and screening level risk assessments at the IMRRs and the Bains Gap Road ranges to determine appropriate ecological remedial goals for site media.

3 CONTAMINANT FATE AND TRANSFER

3.1 Contaminants of Concern

Contaminants of concern were identified in the RI Report for the IMRRs. The COCs in surface and subsurface soil consist of antimony, copper, lead, and zinc; the metals most commonly associated with small arms ranges. Additionally, some Site samples have identified lead and copper constituents present in Site sediment samples.

3.2 Affected Media

Contaminated media at the ranges consists of surficial and sub-surficial contaminated soil, as well as four locations with contaminated sediment.

3.3 Extent and Distribution of Contaminated Media

Metals in soils is the predominant contamination at the Ranges, based on the use of the Ranges for small arms training. The constituents of concern are small arms related; specifically lead, antimony, copper, and zinc.

The IMRRs are predominantly located in MRS-3 and MRS-11. The majority of the ranges are located in MRS-3, which was cleared of munitions to a depth of 1 foot. Based on this, the vertical extent of metals remediation will be limited to a depth of six to nine inches in those areas where the remediation overlaps MEC areas that were cleared to a depth of one foot.

3.4 Determination of COCs

The investigation documents identify the COCs for each Range determined to be of potential risk to human health and the environment although the concentrations and distribution of COCs may have changed since the investigation. It is expected that the contamination identified in the RI Report are still present at the IMRRs, with a few exceptions. Areas of Range 19, Range 13, and the Skeet Range have experienced moderate to severe erosion in the intervening years since the completion of the RI. Additionally, road maintenance and brush/timber clearing have been performed at the Ranges. Also, the ALDOT constructed an exit from US Highway 431 that required the significant construction efforts in the area immediately adjacent to the western boundary of the IMRRs. This construction effort could have created major changes to the site stormwater flow, resulting in changes to site erosion and/or sedimentation.

The RI also investigated both surface water and groundwater at the IMRRs. Groundwater was sampled for metals, volatile organic compounds, semi-volatile organic compounds, explosives, and perchlorate. Metals and various organic compounds were detected in these samples, but only three metals were detected above background and site screening levels: barium, beryllium, and manganese. One explosive (4-amino-2,6-dinitrotoluene [4-ADNT]) was detected above its site screening level. No metals identified in the groundwater samples were determined to be Site related (Table 6-9 of the RI) and were removed from further consideration. All of the organic compounds were determined to be Site related and were subjected to a streamlined human health risk assessment (HHRA), which identified only the one explosive (4-ADNT) as a chemical of potential concern (Table 6-15 of the RI). At the completion of the risk assessment, the one explosive detect was determined to not pose a sufficient risk to the end users and was not identified as a COC (Table 6-36 of the RI). Therefore, groundwater at the IMRRS does not pose a risk to the future use of the IMRRs.

Nine surface water samples were collected from the IMRRs in 2000. The samples were analyzed for metals, explosives, and perchlorate. Metals were detected in all of these samples, with only lead and thallium detected

above background and site human health and ecological screening levels. Only lead in surface water (two samples) was identified as being Site related (Table 6-10 of the RI). Thallium was also detected in laboratory or field blanks and was therefore determined to not be a site related chemical. All other metals in the surface water samples were removed from further consideration. The two surface water samples were subjected to a streamlined HHRA and a BERA. The HHRA determined lead in surface water as a chemical of potential concern (Table 6-16 of the RI), however lead in surface water was not identified as a COC (Table 6-37 of the RI). The ecological risk assessment identified lead in surface water to be a cause of concern in only one of the two samples (the maximum lead result). Based on the fact that the one surface water lead result is only slightly above the risk based remedial goal, the age of the sample (the sample was collected right after the Site closed in 1999), and the fact that the soil remediation planned for the IMRRs will address the likely source of the lead in that surface water sample, the MDA does not believe that surface water at the IMRRs is a source of concern and does not recommend any additional work with regard to surface water at the site.

4 CORRECTIVE ACTION

4.1 Design Objectives

The objective of the corrective measures is to address COCs in site soils and select sediment locations at the Site to mitigate potential human health and ecological risks.

4.1.1 Remediation Goals

The target remedial goals have been designed to ensure the protection of the environment. These goals are based on both residential risk based target levels (RBTLS) and ecological risk-based remedial goals. The ecological remedial goals were determined in the *Final – Revision 2, Identification of Ecological Risk-Based Remedial Goals, Iron Mountain Road and Bains Gap Road Ranges* (Shaw, 2010) and are presented in Tables 1 and 2 below, along with the associated RBTLS. The cleanup levels are based on an anticipated future land use of Municipal Reserve and McClellan Park System.

Table 1 – Cleanup Levels for Surface/Depositional and Subsurface Soils at the Iron Mountain Road Ranges

Surface/Depositional Soil COCs	Ecological Cleanup Levels (mg/kg)	Residential Cleanup Levels (mg/kg)	Maximum Detected Concentration (mg/kg)			
			Skeet Range & Former Rifle Grenade Range at Skeet Range	Range 19 & Former Rifle Grenade Range, North of Washington Ranges	Range 13	Range 12
Antimony	18	3	1,620	1,240	39.1	92.2
Copper	334	300	153	991	456	509
Lead	500	400	41,300	116,000	4,380	10,600
Zinc	100	2000	74.8	153	110	164

Notes:

- 1) Shaded values exceed cleanup goals

Table 2 – Cleanup Levels for Sediment at Iron Mountain Road Ranges

Sediment COCs	Ecological Cleanup Levels (mg/kg)	Maximum Detected Concentration (mg/kg)			
		Skeet Range & Former Rifle Grenade Range at Skeet Range	Range 19 & Former Rifle Grenade Range, North of Washington Ranges	Range 13	Range 12
Copper	69	73	--	8.9	4.2
Lead	68	2070	--	6	14.1

Notes:

- 1) Shaded values exceed ecological-driven cleanup goals
2) Sediment are to a depth of 1-foot bgs

4.1.1.1 Skeet Range (Parcel 69Q) and Former Rifle Grenade Range at Skeet Range (Parcel 222Q-X)

The Skeet Range and Former Rifle Grenade Range at Skeet Range (Skeet Range) will be remediated as described in the SWCMIP. Due to the one-foot MEC clearance conducted at the Skeet Range (MRS-3), the remediation will be performed at 6 – 9 in bgs in this area. The Skeet Range will be backfilled with clean soil to the pre-remediation contours. In the event the lateral excavation is extended into MRS-3, Tract 3G, the vertical extent of remediation will not be limited and will be performed until post-excavation confirmation samples achieve the cleanup levels.

Additionally, there are four sediment locations at the Skeet Range that require remediation for lead (sediment cleanup level for lead is 68 mg/kg). These include SAR-RC-SW/SD06, SAR-RC-SW/SD09, SAR-RC-SW/SD10, and SAR-RC-SW/SD13. These areas will be addressed in accordance with procedures previously implemented for sediment remediation at the Baby Bains Gap Road Ranges, Range 23 and Range 25 East; including establishing a 50 linear foot areas that encompasses the previous sample location, installation of temporary pumps and hoses to re-route any water, excavation of these locations to 6 - 9 in bgs, and backfill of the area to pre-remediation elevations (Envirocon, 2017).

4.1.1.2 Range 19 (Parcel 75Q) and Former Rifle Grenade Range, North of Washington Ranges (221Q-X)

Range 19 and Former Rifle Grenade Range, North of Washington Ranges will be remediated as described in the SWCMIP. The majority of Range 19 (Parcel 75Q) is located within the one foot MEC clearance area of MRS-3, therefore remediation in these areas will be performed 6 – 9 in bgs. Remediation areas in the one foot clearance areas of Range 19 will be backfilled with clean soil to the pre-remediation contours. Those areas of Range 19 located in MRS-3 Tract 3-G will be remediated until post-excavation confirmation samples achieve the cleanup levels.

The metals contaminated soils identified in the Former Rifle Grenade Range, North of Washington Ranges (Parcel 221Q-X) is located in the westernmost portion of this range, entirely in the MRS-3, Tract 3-G which was cleared to the depth of detection (**Figure 4**). The vertical extent of remediation will not be limited and will be performed until post-excavation confirmation samples achieve the cleanup levels. In the event the lateral excavation is extended westward into MRS-3, Tracts 3-A or 3-B, the remediation will be performed to a depth of 6 – 9 in bgs in those areas and backfilled with clean soil to the pre-remediation contours.

4.1.1.3 Range 13 (Parcel 71Q)

The majority of Range 13 is located in MRS-3, with a small area on the southeastern corner located in MRS-11. The MEC clearance in MRS-11 was performed to the depth of detection. The area with lead contamination identified in the RI is located in both MRS-3, Tracts 3-B and 3-G (**Figure 5**). Metals remediation conducted within Tract 3-B will be performed to a depth of 6 – 9 in bgs and backfilled with clean soil to the pre-remediation contours. The vertical extent of metals remediation conducted within Tract 3-G and MRS-11 will not be limited and will be performed until post-excavation confirmation samples achieve the cleanup levels.

4.1.1.4 Range 12 (Parcel 70Q)

Range 12 is located entirely within the boundaries of MRS-3, Tract 3-B a 1-foot clearance area. A soil remediation was performed by the Army on a large portion of Range 12 located within the EBC. The remaining portion of Range 12 on MDA property is less than one acre at the northeast corner of the range. Due to the limited size, the proposed future land use of McClellan Park System, and the steep terrain (slopes approaching 2:1), the MDA plans to not perform soil remediation at this range. The MDA will perform additional surface soil sampling for lead, copper, antimony, and zinc to delineate the extent of contamination above ecological cleanup levels as shown on Figure 6, and place a LUC on Range 12 that restricts this area from residential, commercial, or industrial use.

4.1.2 Projected Time Frame for Remedy and Effectiveness Reporting

The time frame for remediation at the target Sites will vary greatly depending on the size, current accessibility, COCs, and environmental factors. It is anticipated that the remediation project will take less than one year to complete field activities, thus it is expected that no effectiveness monitoring reports will be required during the implementation of the corrective measures.

4.2 Regulatory Requirements

The primary regulatory driver for this corrective action is the CA between ADEM and the MDA (Mod 4, 2014). The primary regulatory requirements are the state and federal rules and regulations pertaining to RCRA and corrective measures and ADEM guidance manuals, specifically:

- ADEM Division 14 (Land Division - Hazardous Waste Program) Rules (ADEM Administrative Code r. 335-14);
- Alabama Law under Title 22 of the Code of Alabama including the Alabama Hazardous Wastes Program;
- Alabama Environmental Investigation & Remediation Guidance (AEIRG);
- Alabama Hazardous Waste Management and Minimization Act, Code of Alabama, 1975, as amended, §§ 22-30-1 to 22-30-24;
- Code of Federal Regulations (CFR) Title 40 (40 CFR Parts 260, 261, & 268);
- Alabama Uniform Environmental Covenants Act, Code of Alabama, 1975, as amended, §§ 22-22A-5; and
- Alabama State Soil and Water Conservation Committee guidance including the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas (SWCC, 2009)*.

The remediation contractor will also obtain the necessary city, county, and state permits including filing a Notice of Intent (if required) and other permit requirements under Alabama Construction General Permit (General Permit Number ALR100000) as part of National Pollutant Discharge Elimination System requirements.

4.3 Reporting

4.3.1 *Corrective Measures Implementation Report (CMIR)*

The selected contractor will begin working on the CMIR during site excavation activities. All data necessary for the report will be carefully gathered and documented, including photographs, survey information, field screening results, laboratory analytical data, weight tickets, etc. As remedial excavations are completed, the corresponding sections of the report will be written in draft form. Once remediation activities are complete, these sections will be compiled and polished into a final document. This report represents the final documentation of the site remediation including confirmation sampling results that indicate that “NFA” criteria have been met and upon completion of work activities will be submitted to MDA/Matrix and ADEM for review.

4.3.2 *Environmental Covenants*

Current plans for the reuse of the property include the Municipal Reserve and McClellan Park System. The remediation to ecological standards will require institutional controls in the form of a restrictive covenant and will be submitted under separate cover. There are currently two environmental covenants that may be affected by the soil remediation. Environmental Covenant FY-18-01.00 was recorded on December 28, 2017 and currently addresses the UXO clearance at MRS-3. The majority of the soil remediation will be conducted in the areas covered by this covenant. Environmental Covenant FY-18-01.00 will require modification at the completion of soil remediation to restrict the property from being used for residential purposes. The non-remediated area with COCs above ecological cleanup levels in parcel 70Q will also be restricted from commercial or industrial development. Environmental Covenant FY-17-02.00 was recorded on August 31, 2017 and addresses the UXO clearance at MRS-11. A small portion of Range 13 (Parcel 71Q) is located in MRS-11, however at this time it is expected that no soil remediation activities will occur in the MRS-11 portion of Range 13.

LUCs will be necessary in any remediated area that does not achieve residential standards. These LUCs will be in addition to any existing current controls currently in place. Below is an example of draft language that should be used for the modification to the existing covenants:

“Residential use of the property is prohibited within the area identified on the MRS-X boundary map consisting of the entire Parcel ????. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.”

5 CONCLUSIONS AND RECOMMENDATIONS

This SSA to the SWCMIP for Soil Remediation (Matrix, 2018) presents the recommended approach for addressing metal-contaminated soil at the IMRRs. The CMIR will evaluate project goals and evaluate project effectiveness. In addition, any recommendations for further corrective measures will be included in this report; however, it not anticipated that additional corrective measures will be necessary given the scope of this work.

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Figures

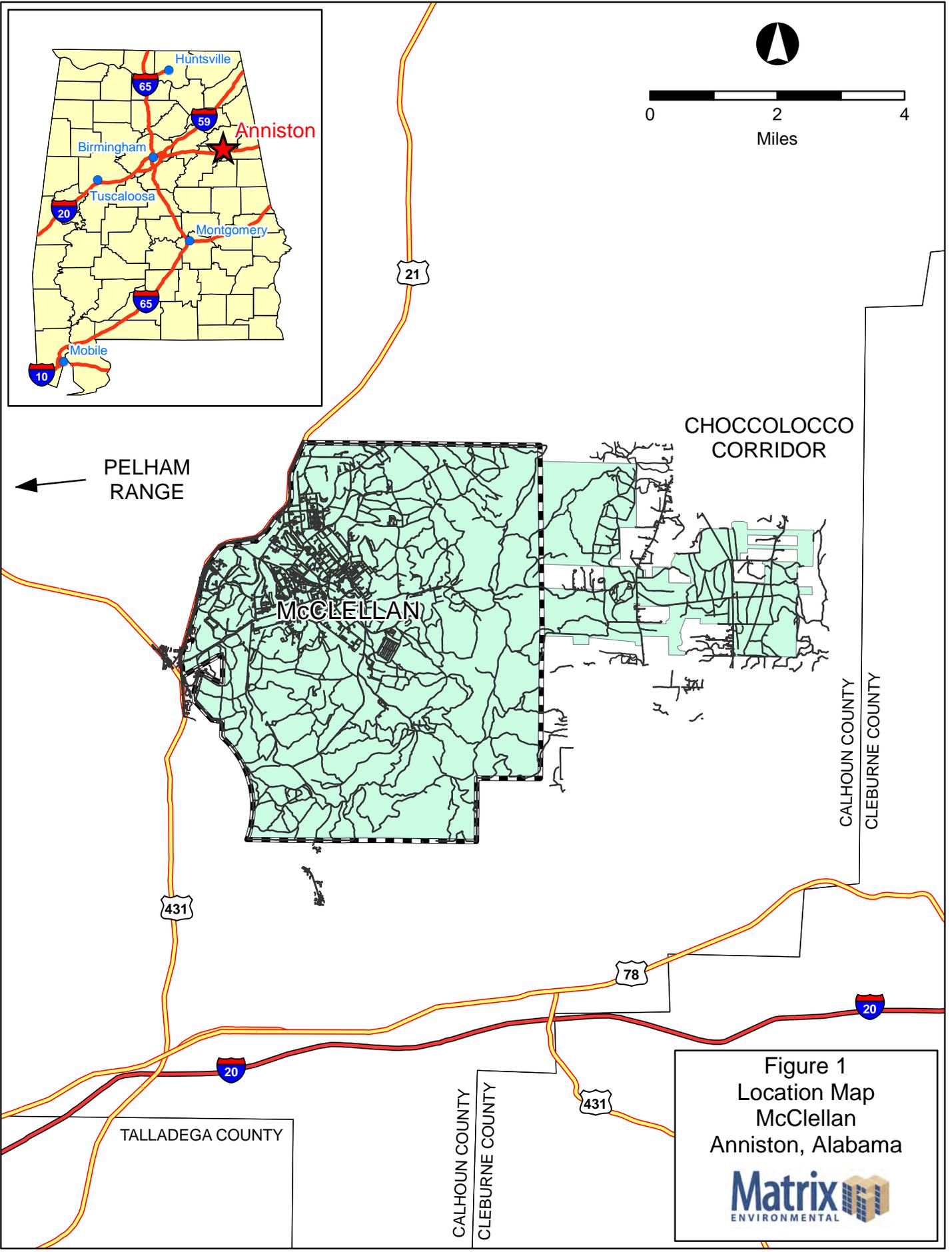
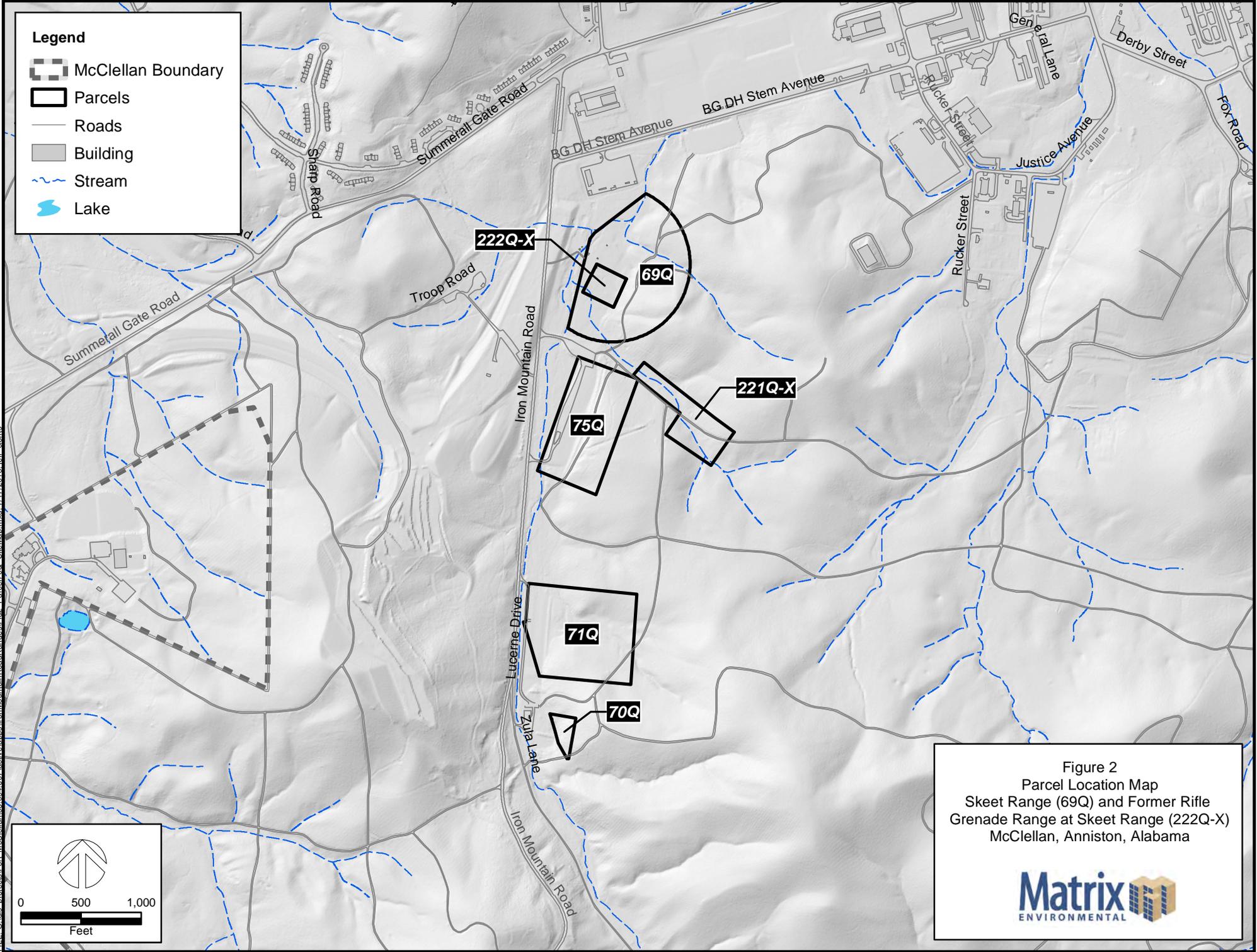


Figure 1
Location Map
McClellan
Anniston, Alabama





Legend

-  McClellan Boundary
-  Parcels
-  Roads
-  Building
-  Stream
-  Lake

Figure 2
 Parcel Location Map
 Skeet Range (69Q) and Former Rifle
 Grenade Range at Skeet Range (222Q-X)
 McClellan, Anniston, Alabama



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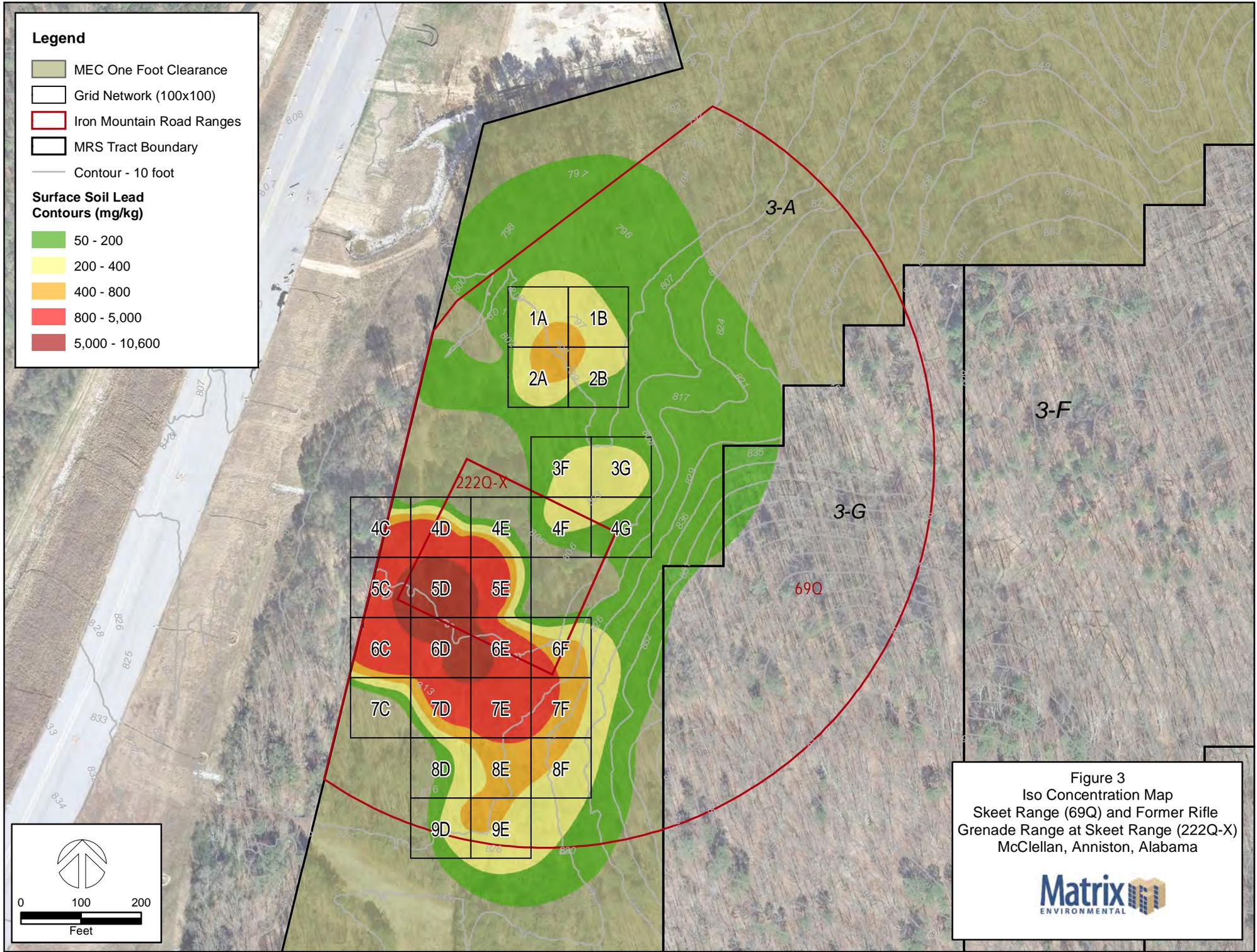
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Legend

-  MEC One Foot Clearance
-  Grid Network (100x100)
-  Iron Mountain Road Ranges
-  MRS Tract Boundary
-  Contour - 10 foot

Surface Soil Lead Contours (mg/kg)

-  50 - 200
-  200 - 400
-  400 - 800
-  800 - 5,000
-  5,000 - 10,600



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Legend

-  Grid Network (100x100)
-  Iron Mountain Road Ranges
-  MRS Tract Boundary
-  Contour - 10 foot

Surface Soil Lead Contours (mg/kg)

-  50 - 200
-  200 - 400
-  400 - 800
-  800 - 5,000
-  5,000 - 10,600
-  MEC One Foot Clearance

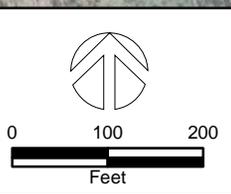
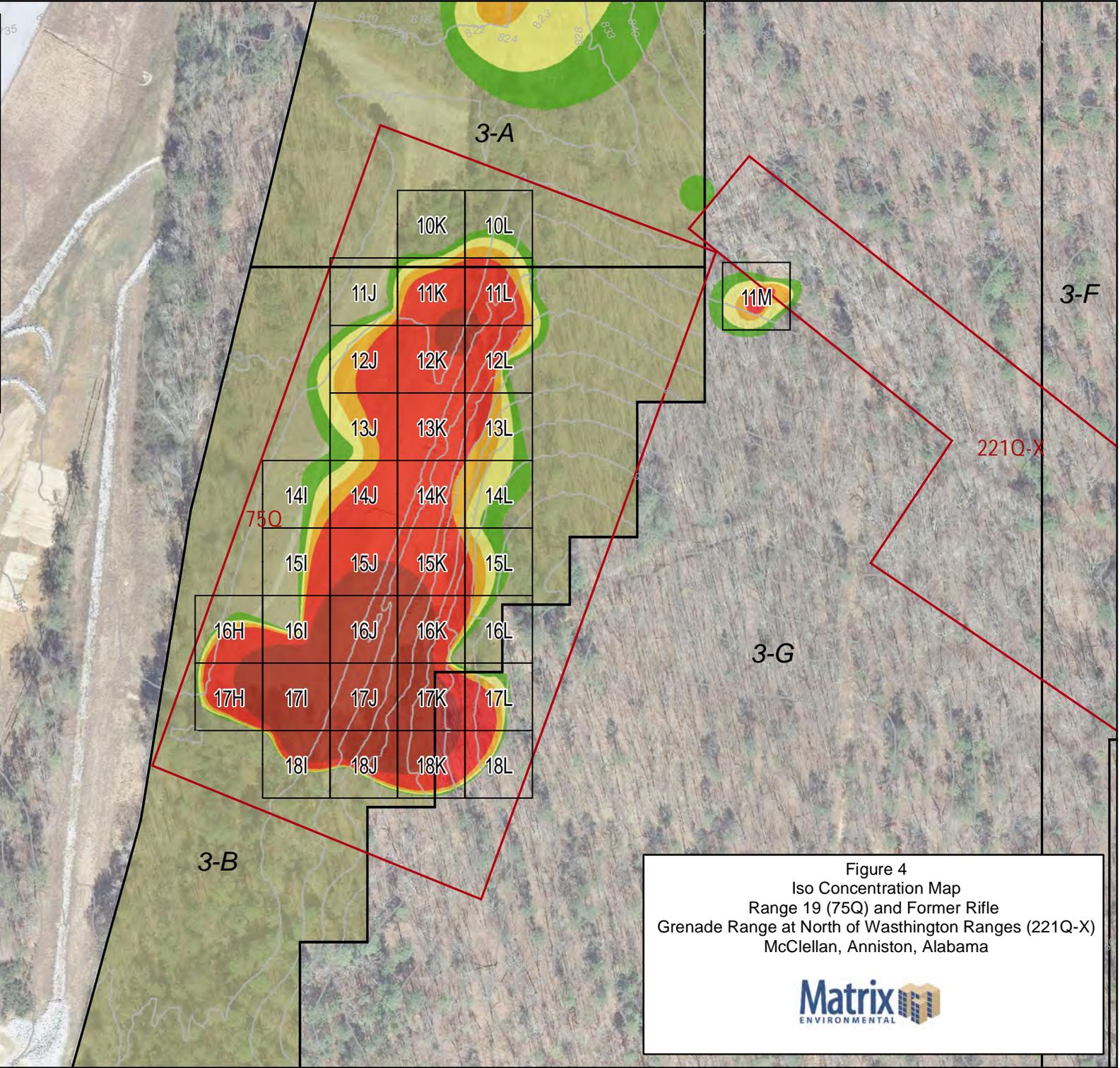


Figure 4
 Iso Concentration Map
 Range 19 (75Q) and Former Rifle
 Grenade Range at North of Washington Ranges (221Q-X)
 McClellan, Anniston, Alabama



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Legend

-  Grid Network (100x100)
-  Iron Mountain Road Ranges
-  MRS Tract Boundary
-  Contour - 10 foot

Surface Soil Lead Contours (mg/kg)

-  50 - 200
-  200 - 400
-  400 - 800
-  800 - 5,000
-  5,000 - 10,600
-  MEC One Foot Clearance

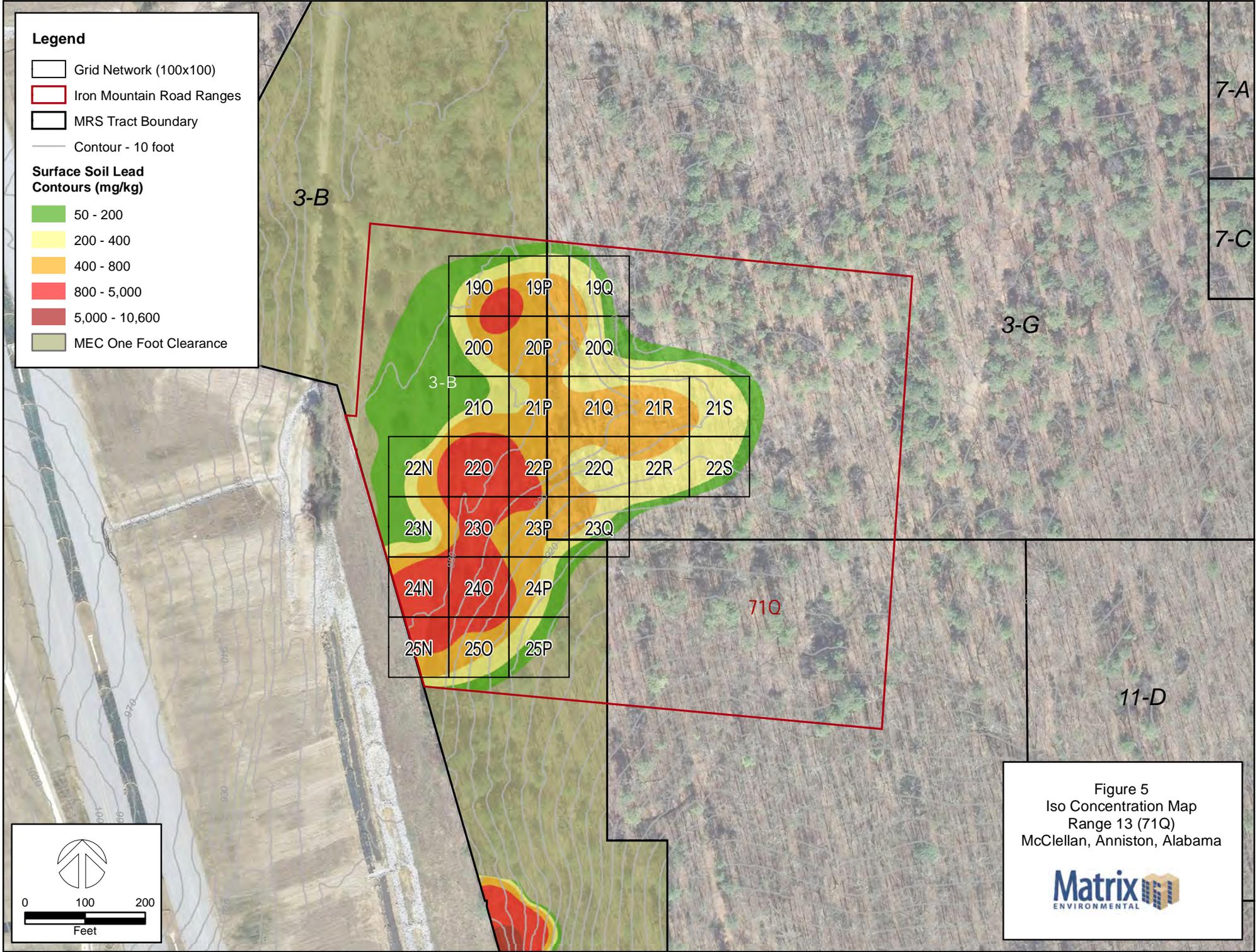
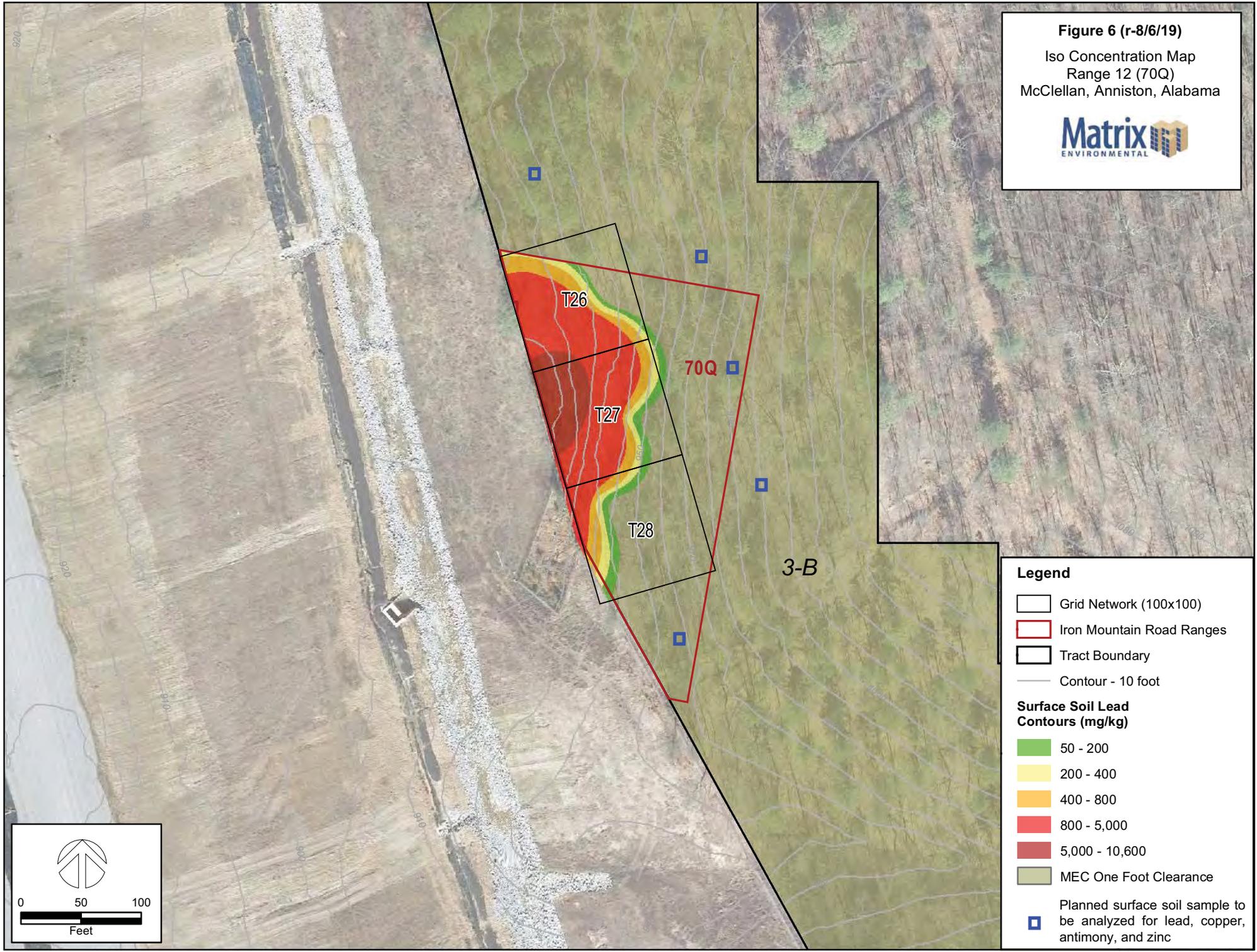


Figure 5
 Iso Concentration Map
 Range 13 (71Q)
 McClellan, Anniston, Alabama



Figure 6 (r-8/6/19)
 Iso Concentration Map
 Range 12 (70Q)
 McClellan, Anniston, Alabama



Legend

- Grid Network (100x100)
- Iron Mountain Road Ranges
- Tract Boundary
- Contour - 10 foot

Surface Soil Lead Contours (mg/kg)

- 50 - 200
- 200 - 400
- 400 - 800
- 800 - 5,000
- 5,000 - 10,600
- MEC One Foot Clearance

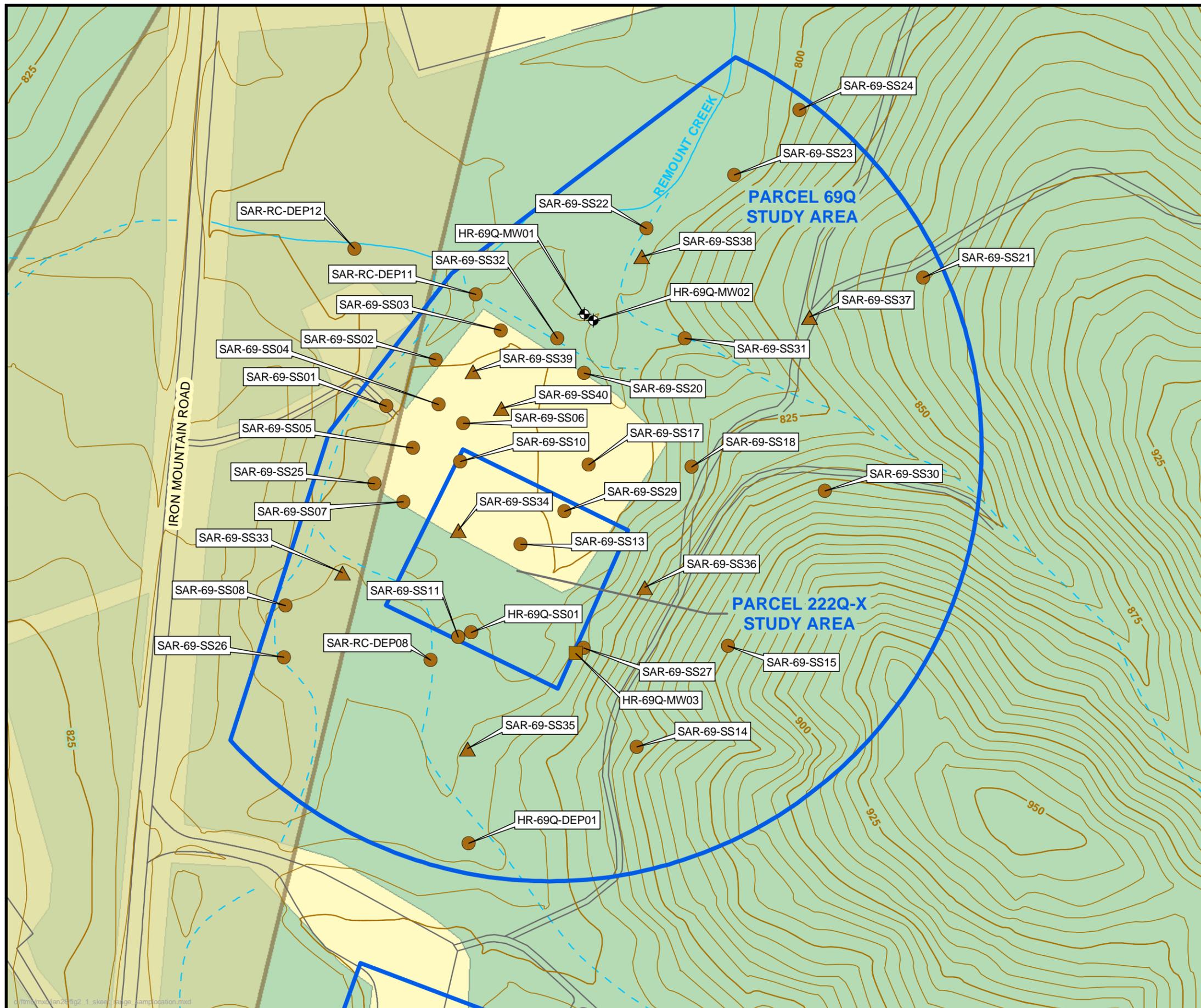
Planned surface soil sample to be analyzed for lead, copper, antimony, and zinc

Appendix A – Key Figures from the Remedial Investigation Report

Figure 2-1

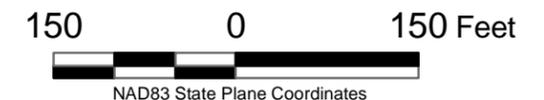
Sample Location Map

Skeet Range, Parcel 69Q and
Former Rifle Grenade Range,
Parcel 222Q-X
Fort McClellan, Alabama



Legend

-  Surface Soil Sample Location
-  Surface and Subsurface Soil Sample Location
-  Subsurface Soil Sample Location
-  Monitoring Well/Groundwater Sample Location
-  Study Area
-  Eastern Bypass Corridor
-  Wooded
-  Not Wooded
-  Roads
-  Surface Drainage Feature (Dashed where Intermittent)
-  Topographic Contour (5-foot interval)

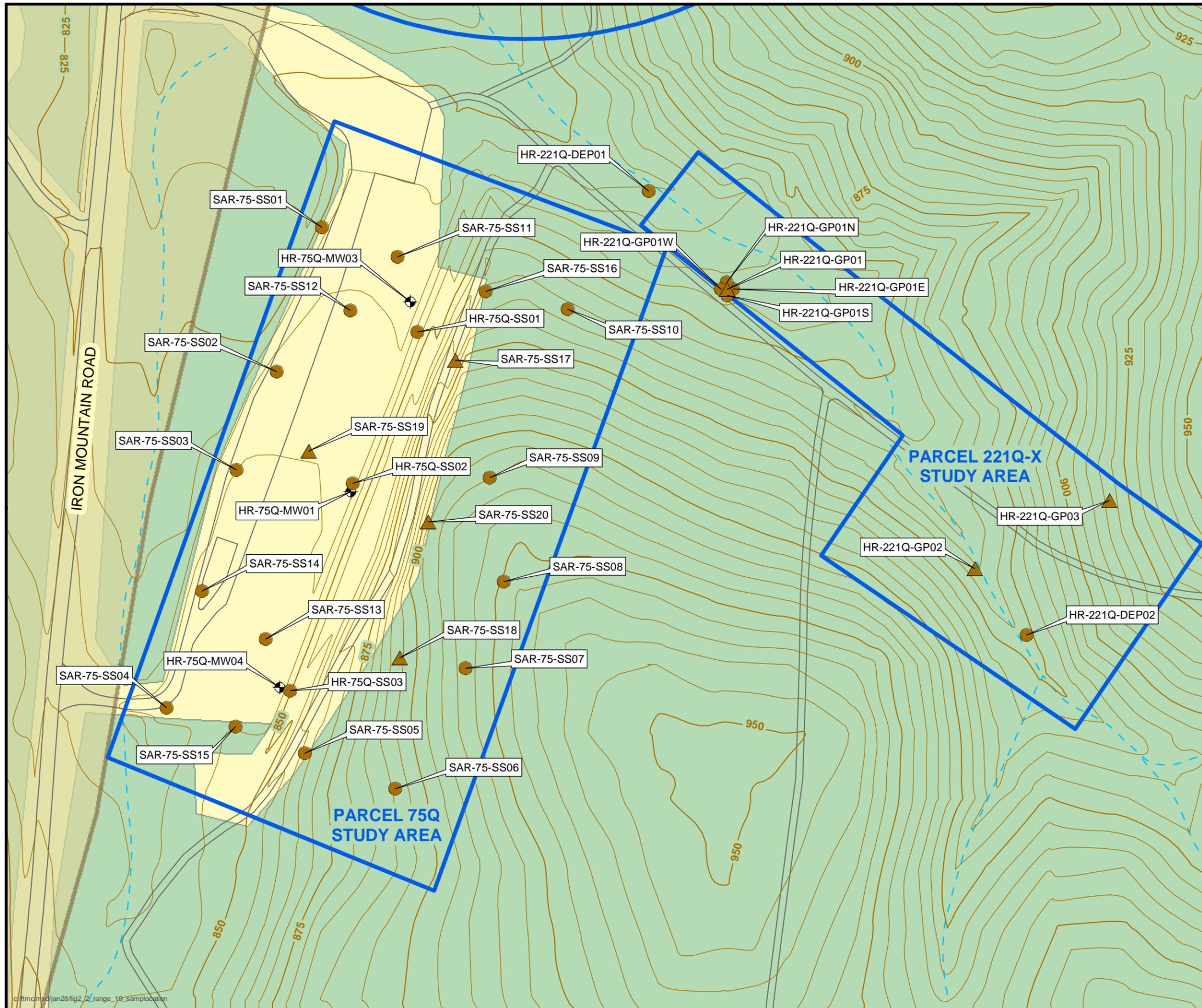


Contract No. DACA21-96-D-0018

Figure 2-2

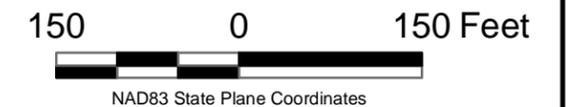
Sample Location Map

Range 19, Parcel 75Q and Former Rifle Grenade Range North of Washington Ranges, Parcel 221Q-X Fort McClellan, Alabama



Legend

- Surface Soil Sample Location
- ▲ Surface and Subsurface Soil Sample Location
- ⊕ Monitoring Well/Groundwater Sample Location (HR-75Q-MW03 - not sampled because well was dry)
- Study Area
- Eastern Bypass Corridor
- Wooded
- Not Wooded
- Roads
- Intermittent Surface Drainage Feature
- Topographic Contour (5-foot interval)

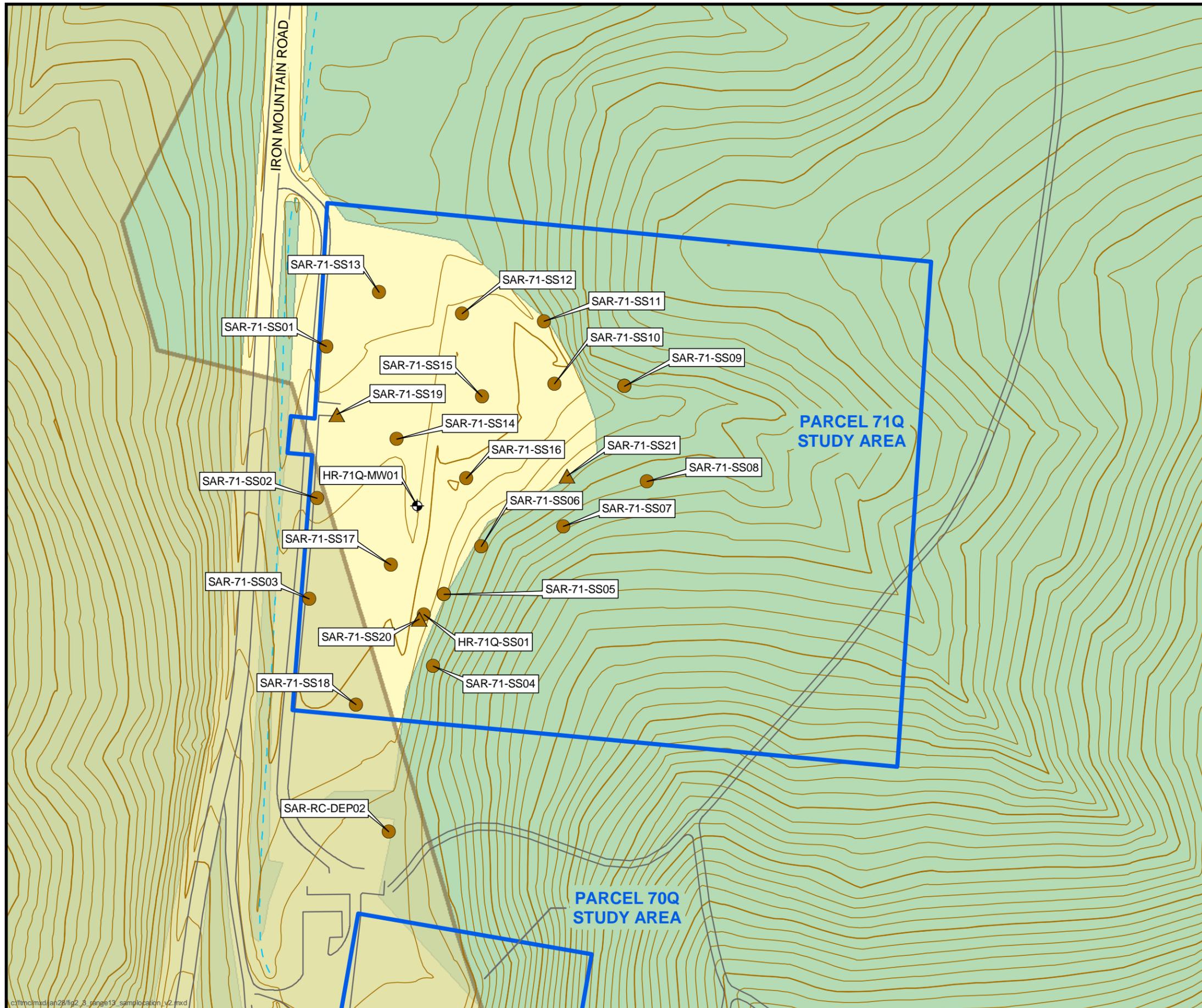


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Figure 2-3

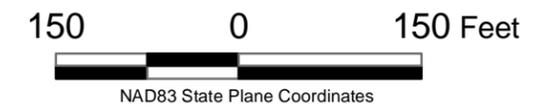
Sample Location Map

Range 13, Parcel 71Q
Fort McClellan, Alabama



Legend

- Surface Soil Sample Location
- ▲ Surface and Subsurface Soil Sample Location
- ⊕ Monitoring Well/Groundwater Sample Location
- ▭ Study Area
- ▭ Eastern Bypass Corridor
- Wooded □ Not Wooded
- Roads
- - - Intermittent Surface Drainage Feature
- Topographic Contour (5-foot interval)



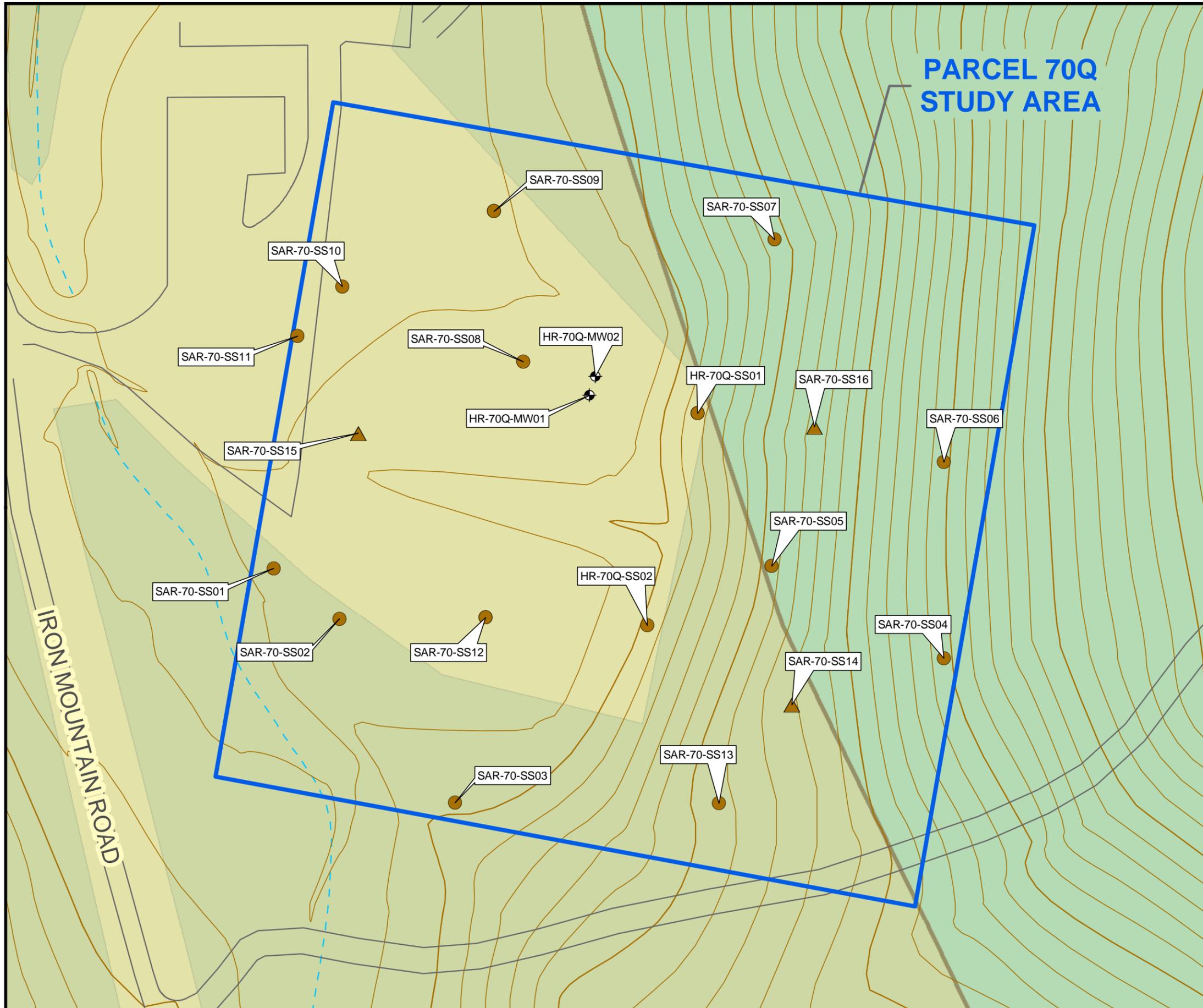
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Figure 2-4

Sample Location Map

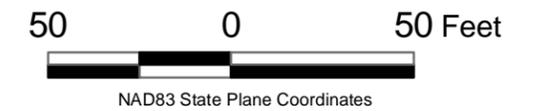
Range 12, Parcel 70Q
Fort McClellan, Alabama

PARCEL 70Q
STUDY AREA



Legend

- Surface Soil Sample Location
- ▲ Surface and Subsurface Soil Sample Location
- ⊕ Monitoring Well/Groundwater Sample Location (HR-70Q-MW01 - not sampled because well was dry)
- ▭ Study Area
- ▭ Eastern Bypass Corridor
- Wooded ■ Not Wooded
- == Roads
- - - Intermittent Surface Drainage Feature
- Topographic Contour (5-foot interval)



Contract No. DACA21-96-D-0018

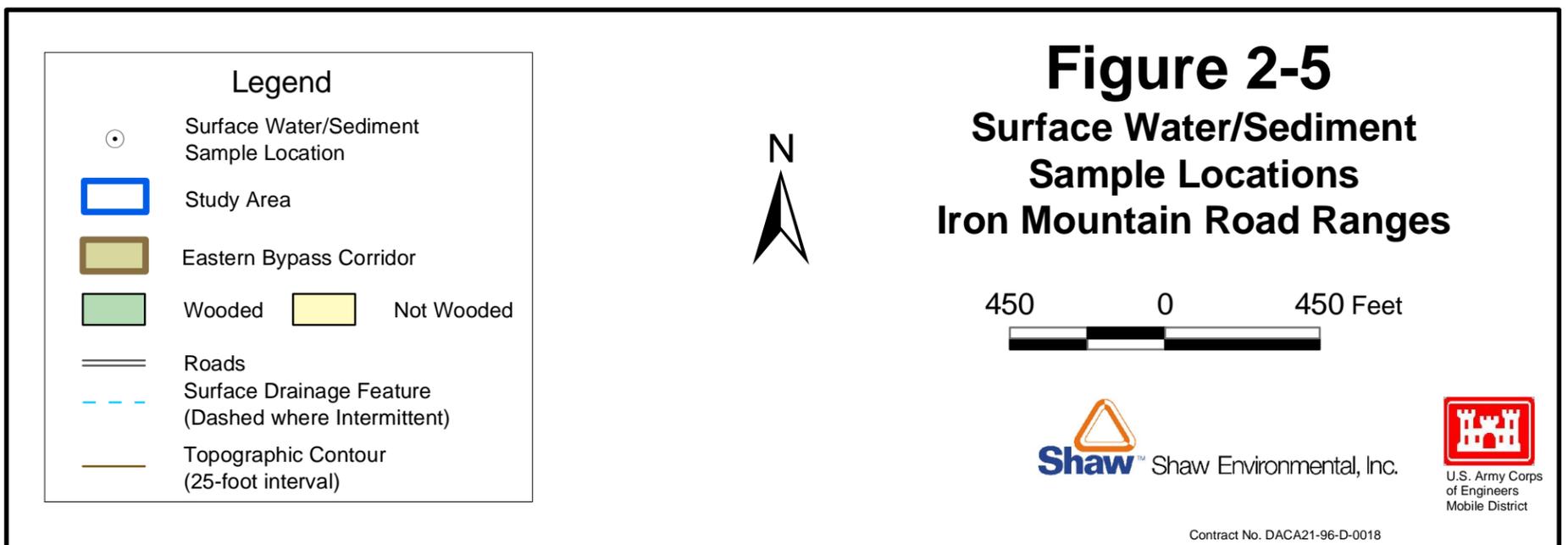
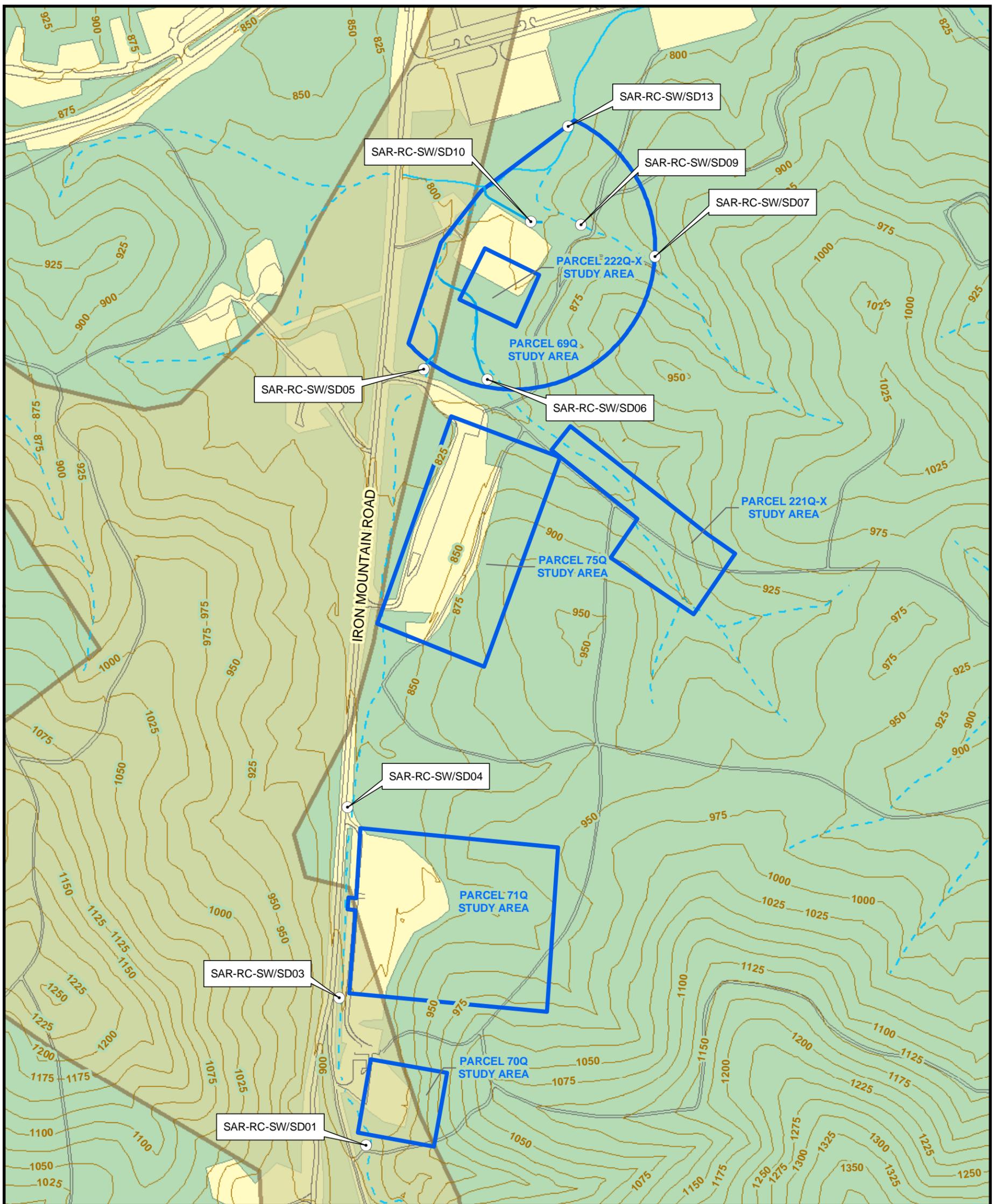
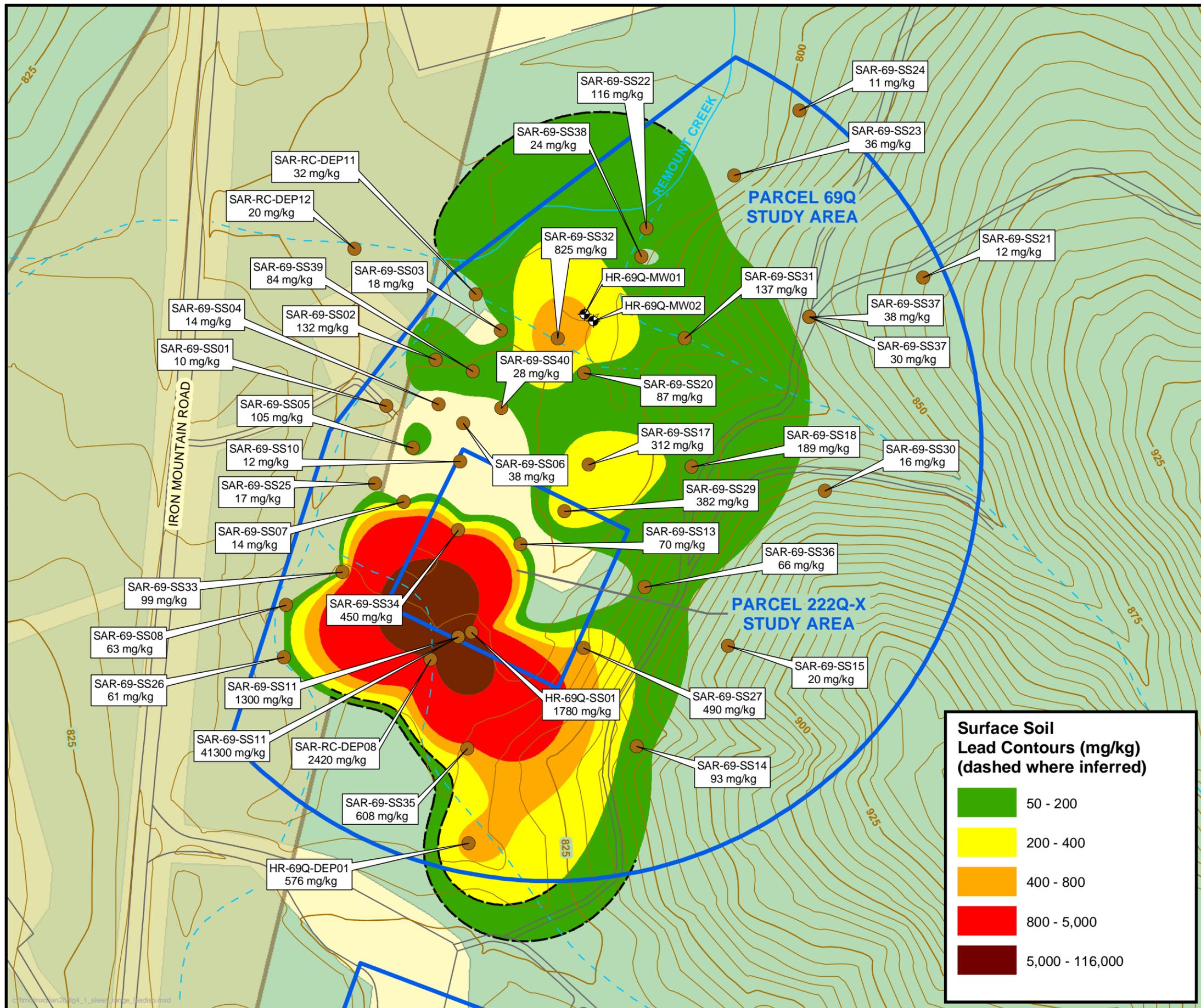


Figure 4-1

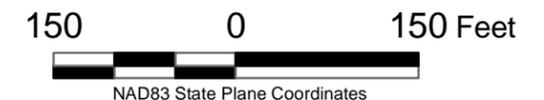
Lead in Surface Soil Isocontour Map

Skeet Range, Parcel 69Q and Former Rifle Grenade Range, Parcel 222Q-X
Fort McClellan, Alabama



Legend

- Surface Soil Sample Location
- ⊕ Monitoring Well (No Soil Sample Collected)
- ▭ Study Area
- ▭ Eastern Bypass Corridor
- ▭ Wooded (Green) / Not Wooded (Yellow)
- ▬ Roads
- ▬ Surface Drainage Feature (Dashed where Intermittent)
- ▬ Topographic Contour (5-foot interval)



Shaw Shaw Environmental, Inc.



Contract No. DACA21-96-D-0018

Figure 4-2

Lead in Surface Soil Isocontour Map

Range 19, Parcel 75Q and Former Rifle Grenade Range North of Washington Ranges, Parcel 221Q-X Fort McClellan, Alabama

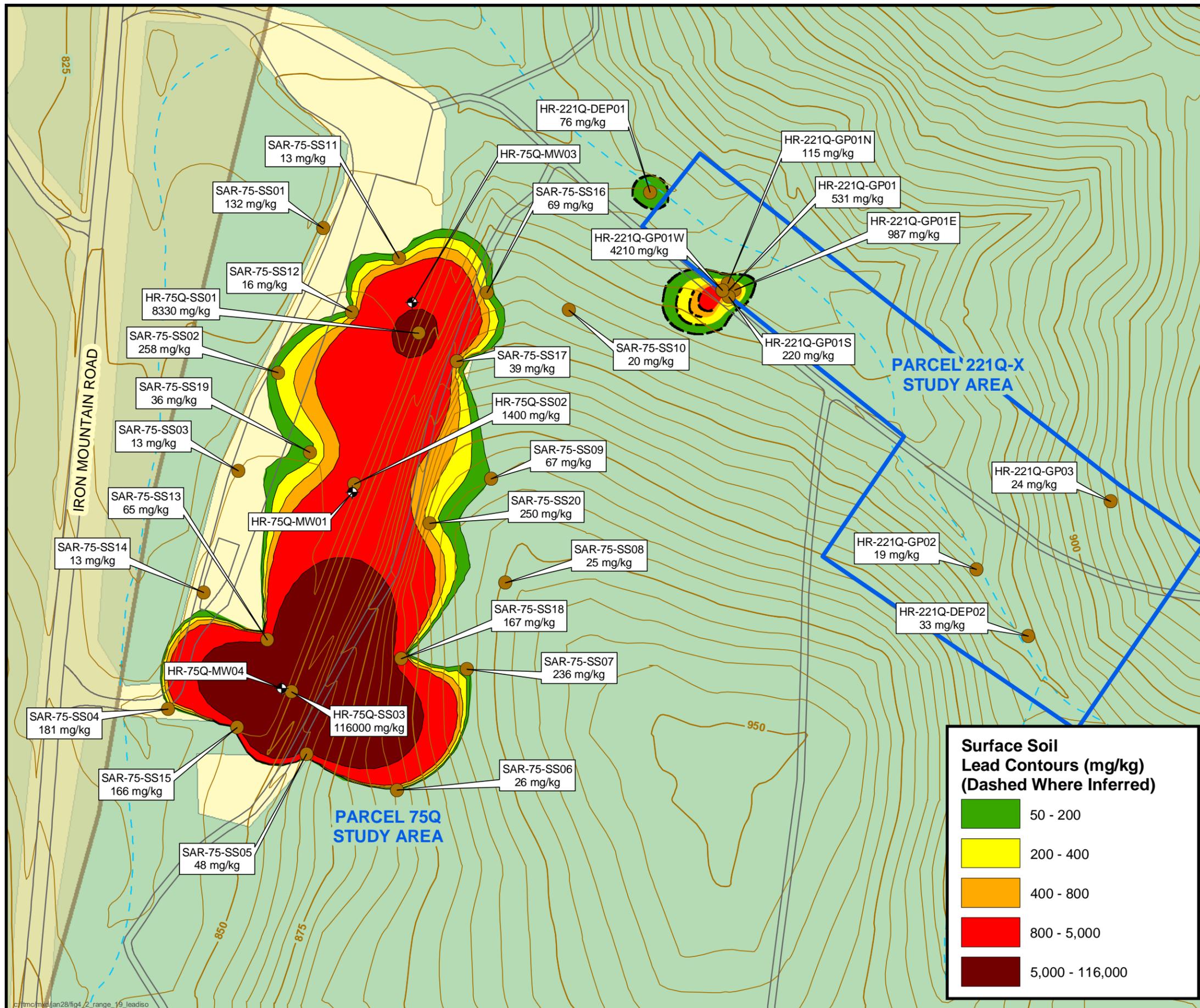
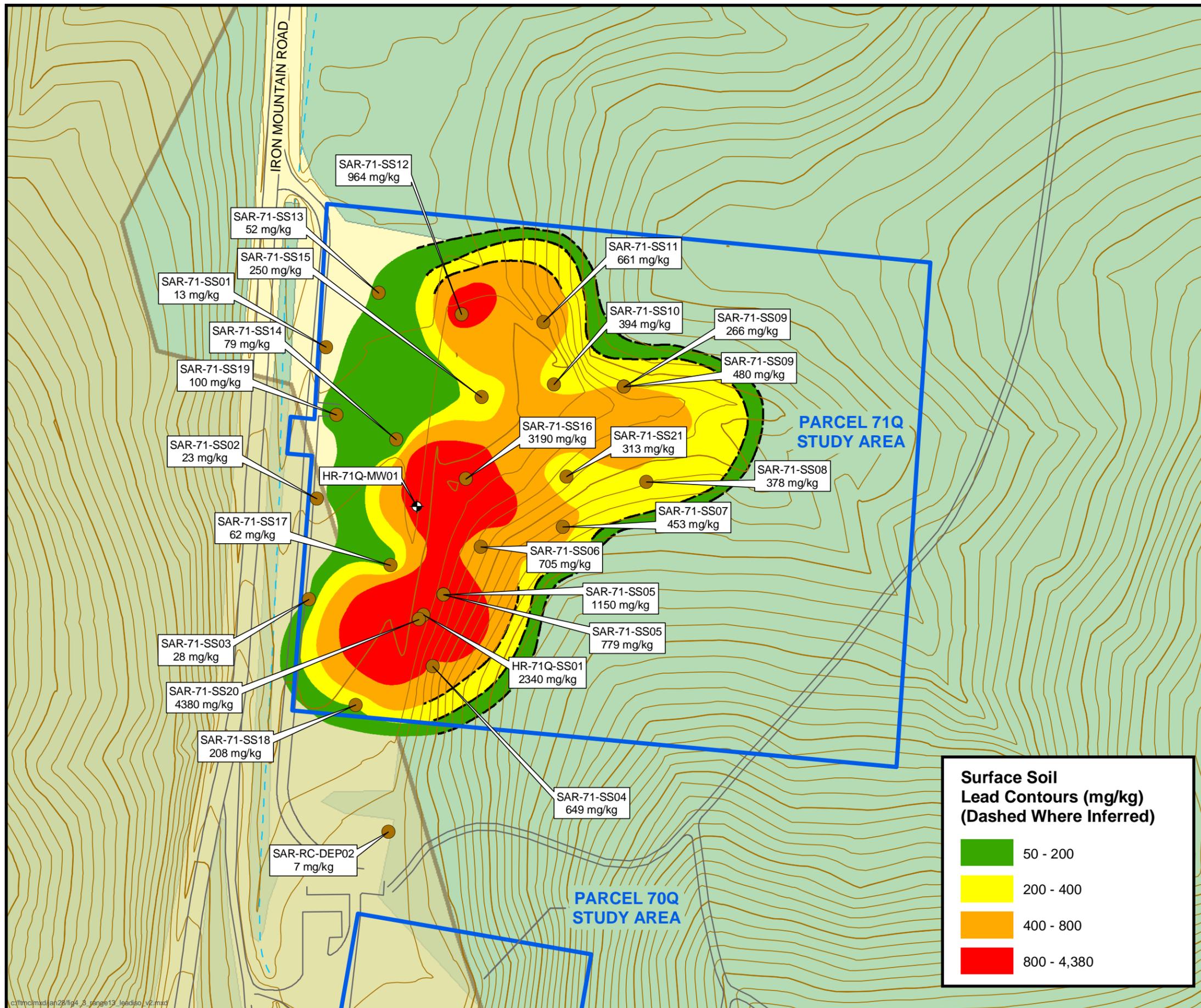


Figure 4-3

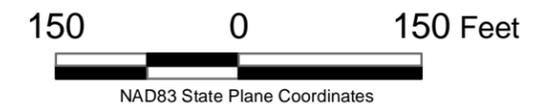
Lead in Surface Soil Isocontour Map

Range 13, Parcel 71Q
Fort McClellan, Alabama



Legend

- Surface Soil Sample Location
- ⊕ Monitoring Well (No Soil Sample Collected)
- ▭ Study Area
- ▭ Eastern Bypass Corridor
- ▭ Wooded ▭ Not Wooded
- ══ Roads
- - - Intermittent Surface Drainage Feature
- Topographic Contour (5-foot interval)



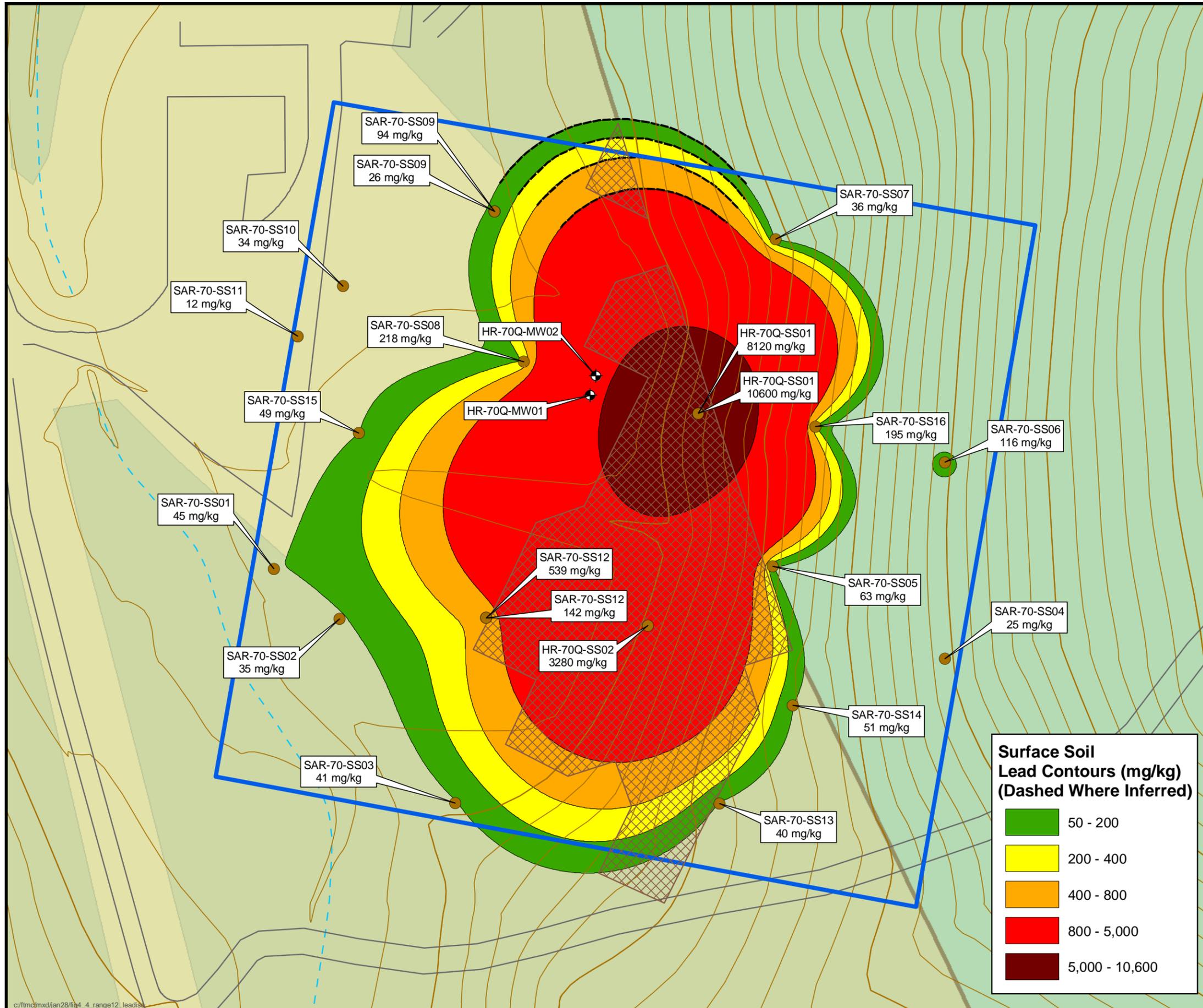
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Figure 4-4

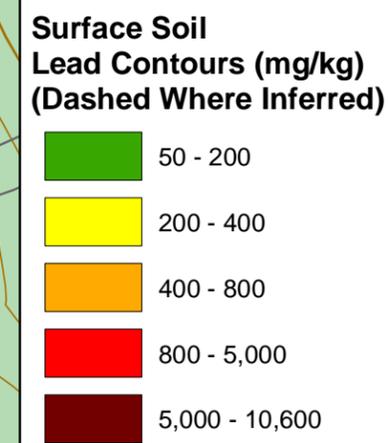
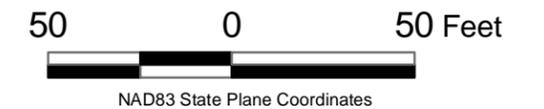
Lead in Surface Soil Isocontour Map

Range 12, Parcel 70Q
Fort McClellan, Alabama

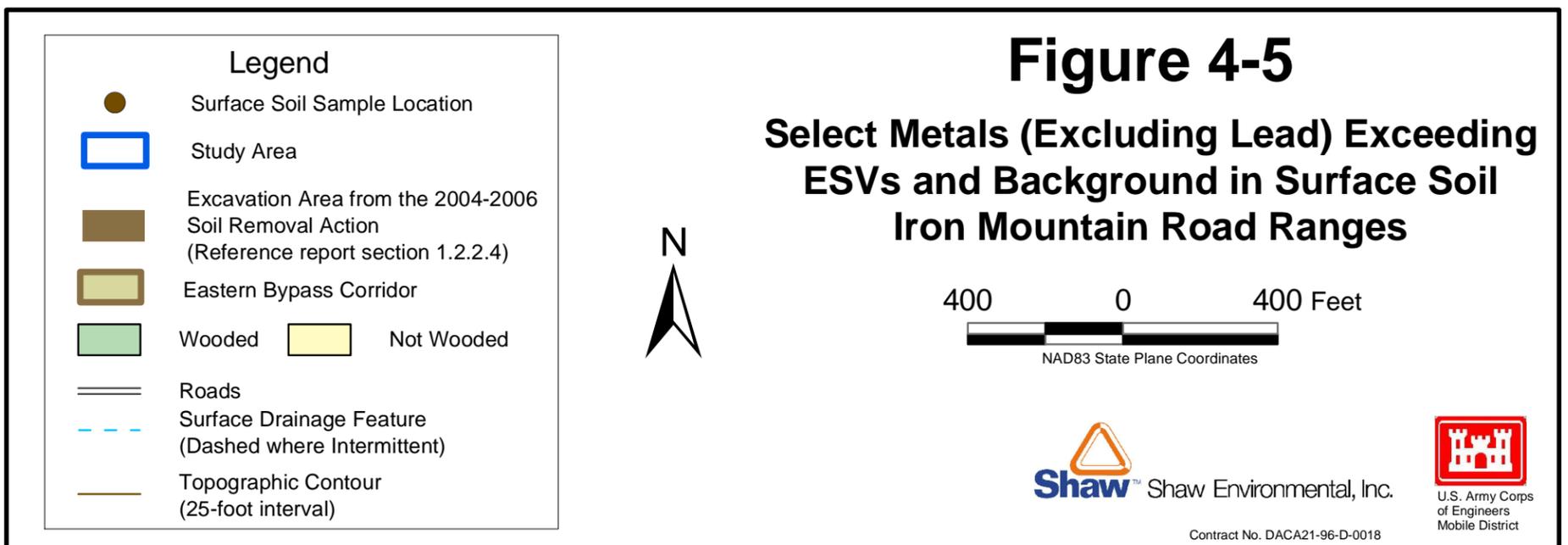
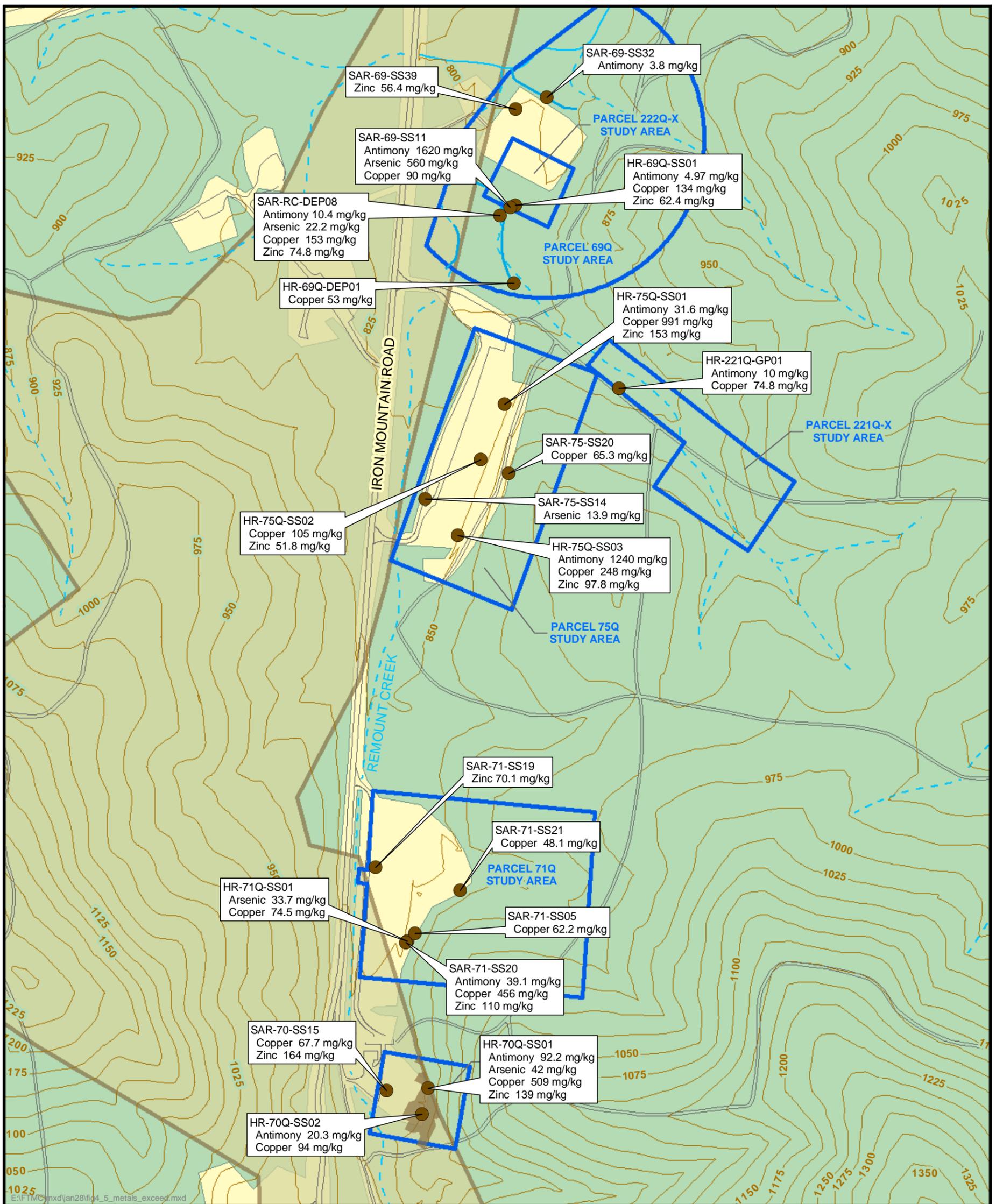


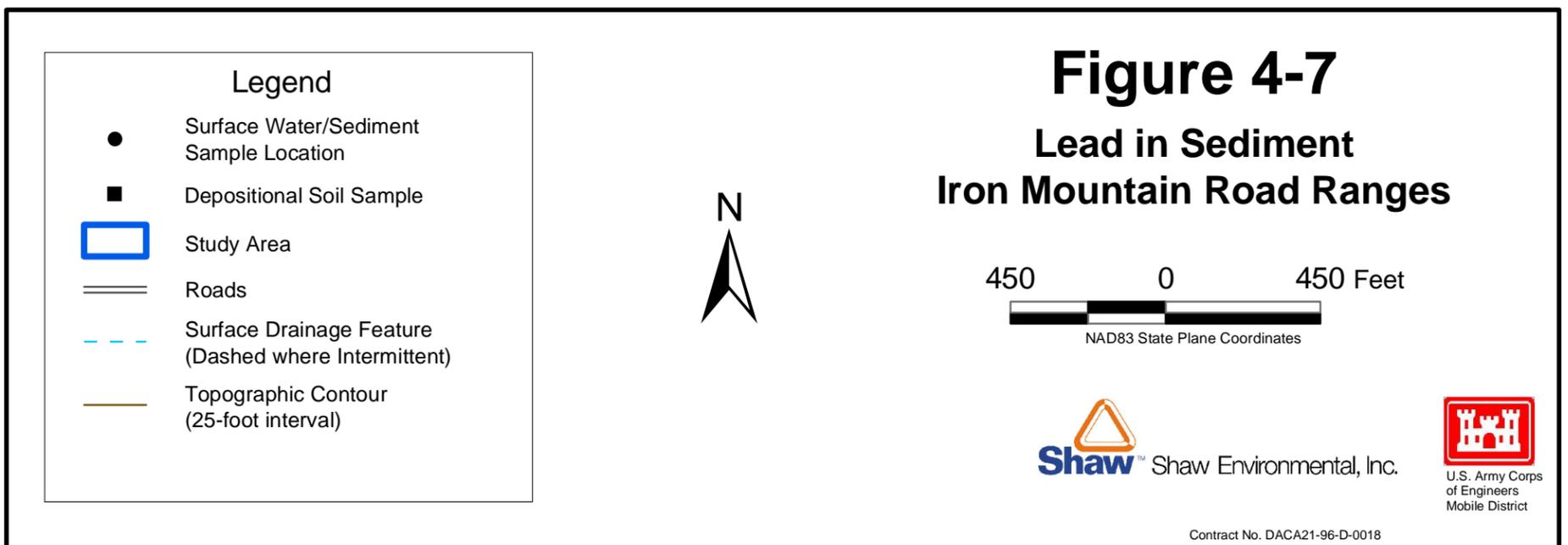
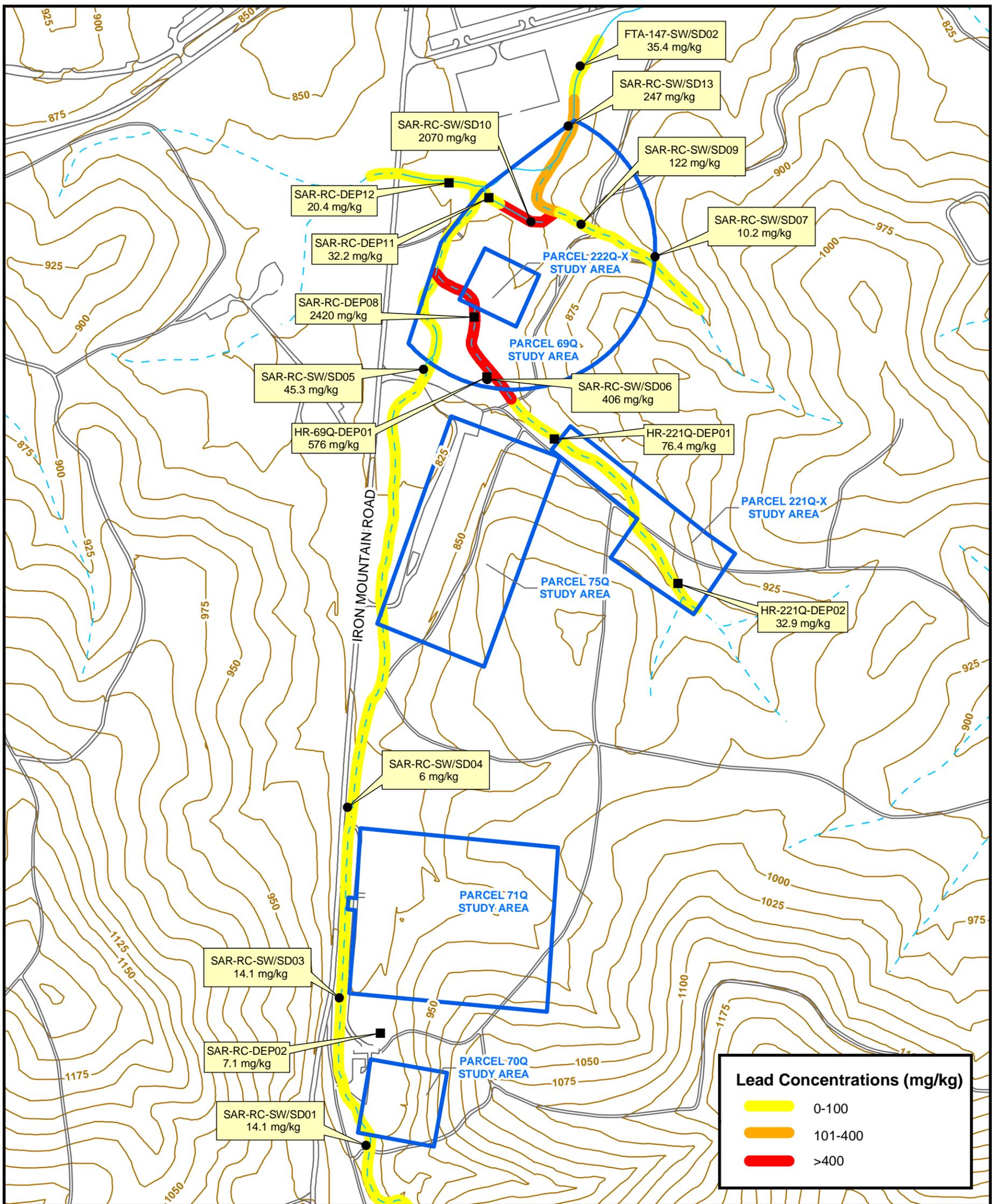
Legend

- Surface Soil Sample Location
- ⊕ Monitoring Well (No Soil Sample Collected)
- Study Area
- Excavation Area from the 2004-2006 Soil Removal Action (Reference report section 1.2.2.4)
- Eastern Bypass Corridor
- Wooded
- Not Wooded
- Roads
- Intermittent Surface Drainage Feature
- Topographic Contour (5-foot interval)



Contract No. DACA21-96-D-0018







**Site Specific Addendum Corrective Measures Implementation Plan –
Range 30 Impact Area**

**Range 30: End-of-Cycle Test Range (Parcel 88Q)
Former Rifle/Machine Gun Range (Parcel 103Q)**

**Fort McClellan
Anniston, Alabama**

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

Prepared by:



283 Rucker Street, Bldg. 3165
Anniston, Alabama 36205
(256) 847-0780
Fax (256) 847-0905

November 2019

November 13, 2019

Mr. Jason Wilson, Chief
C/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: *Site Specific Addendum Corrective Measures Implementation Plan - Range 30 Impact Area, Parcels 88Q and 103Q, McClellan, Anniston, Alabama* dated November 2019

Dear Mr. Wilson:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit the *Site Specific Addendum Corrective Measures Implementation Plan - Range 30 Impact Area, Parcels 88Q and 103Q, McClellan, Anniston, Alabama* dated November 2019 for your review.

Two hard copies and one electronic copy have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (one electronic and two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

November 13, 2019

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**Site Specific Addendum Corrective Measures Implementation Plan –
Range 30 Impact Area**

**Range 30: End-of-Cycle Test Range (Parcel 88Q)
Former Rifle/Machine Gun Range (Parcel 103Q)**

**Fort McClellan
Anniston, Alabama**

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

Prepared by:



283 Rucker Street, Bldg. 3165
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(256) 847-0780
Fax (256) 847-0905

November 2019

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List of Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AEIRG	Alabama Environmental Investigation & Remediation Guidance
Army	United States Department of the Army
ASR	Archives Search Report
bgs	below ground surface
CA	Cleanup Agreement
CFR	Code of Federal Regulations
CMIP	Corrective Measures Implementation Plan
CMIR	Corrective Measures Implementation Report
COC	Contaminants of Concern
EBS	Environmental Baseline Survey
ECO	Ecological
ESE	Environmental Science & Engineering, Inc.
ft	feet
in	inch
LUCs	Land Use Controls
m	meter
Matrix	Matrix Environmental Services, LLC.
MDA	McClellan Development Authority
MEC	munitions and explosives of concern
mg/Kg	milligrams per kilogram
MRS	Munitions Response Site
NFA	No Further Action
RBTLs	Residential Risk Based Target Levels
RBRG	Risk-Based Remedial Goal
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
Shaw	Shaw Environmental Inc.
SSA	Site Specific Addendum
Site	Former Fort McClellan
SWCMIP	Site Wide Corrective Measures Implementation Plan
US	United States
USACE	United States Army Corps of Engineers
UXO	unexploded ordnance

1 PROJECT DESCRIPTION

1.1 Introduction

This Site Specific Addendum (SSA) to the Site-Wide Corrective Measures Implementation Plan (CMIP) for Soil Remediation (SWCMIP) was prepared by Matrix Environmental Services, LLC. (Matrix) for the McClellan Development Authority (MDA) to address soil remediation at the Range 30 Impact Area. The Range 30 Impact Area consists of Range 30: End-of-Cycle Test Range, Parcel 88Q and Former Rifle/Machine Gun Range, Parcel 103Q, hereafter collectively referred to as the Range 30 Impact Area. The purpose of this document is to provide specific information related to the soil contamination at the Range 30 Impact Area that will be used to address the characterization, removal, and disposal of metals impacted soils from these ranges.

These ranges were part of the United States (US) Department of the Army (Army) normal operations at the former Fort McClellan (Site) and are located in the northern part of the Main Post in Anniston, Alabama southeast of Reilly Airfield. These ranges were primarily used for small arms weapons training, which include ammunition up to 0.50 caliber. The ranges were constructed on land that may previously have been used for other types of ordnance training. Bullets and bullet fragments have been found on the ground surface at these ranges. Munitions and explosives of concern (MEC) clearance was performed in a portion of the Range 30 Impact Area, indicated on maps as Tract 12C and documented in the Munitions and Explosives of Concern Remediation After Action Report Munitions Response Sites 12 and 13, Revision 1 dated March 2014 (Matrix, 2014).

1.2 General Information

Facility Name/Alias:	Fort McClellan
Facility Address:	Fort McClellan, Calhoun County, Alabama
Facility ID (If EPA ID has been issued):	AL4210020562
Facility Contact:	Jason Odom McClellan Development Authority 4975 Bains Gap Road Anniston, Alabama 36205 (256) 236-2011
Geographic Coordinates:	33° 42' 17.82" N, 85° 46' 07.31" W
Type of Facility:	Former Army Training Installation
Size of Facility:	42,286 acres
Facility Location Map	See Figure 1
Facility Site Map:	See Figure 2
Current Owner:	McClellan Development Authority
Years of Operation:	2010 to Present
Former Owner:	Anniston-Calhoun County McClellan Development Joint Powers Authority
Years of Operation:	1999-2010
Former Owner:	United States Department of the Army
Years of Operation:	1917-1999 (See Section 2.1)

1.3 Corrective Measures Objectives and Scope

The Cleanup Agreement (CA), Part III, between the Alabama Department of Environmental Management (ADEM) and MDA (ADEM, 2019) requires MDA perform a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) at these ranges. The RFI was completed as documented in the Final Revision 3, RCRA Facility Investigation Report for the Range 30 Impact Area, Parcels 88Q and 103Q, dated August 2019. ADEM concurred with the RFI report and recommended a corrective measures implementation plan (CMIP) including a draft covenant be submitted for review and approval which is the intent of this document.

The objective of these corrective measures is to combine soil remediation activities and land use controls (LUCs) to address metals-impacted soils (surface and subsurface). The proposed future land use of the Range 30 Impact Area is industrial conservation district and wildlife habitat open space according to the McClellan Overlay Redevelopment District, East Alabama Regional Planning Commission, April 2012, adopted by the City of Anniston in Ordinance #12-O-12 on June 26, 2012. For the soil remediation activities, MDA has elected to stabilize any soils failing toxicity characteristic leaching procedure within these ranges and obtain approval for disposal as non-hazardous waste. The specific cleanup level for the Range 30 Impact Area is based on land use and is the ecological cleanup level of 500 milligrams per kilogram (mg/Kg) for lead in the wildlife habitat area and 800 mg/Kg in the industrial area.

LUCs will be necessary upon completion of the soil remediation due to the one-foot clearance of MEC in portions of MRS-12 Tract 12-C, as well as areas of soil that may remain that contain metals concentrations greater than the residential use limit. The LUCs will be implemented by MDA in accordance with the CA.

The scope of these corrective measures is to remove the Contaminants of Concern (COCs), which at this site is lead only, from the Range 30 Impact Area to meet the cleanup levels. Based on the analytical data presented in the RFI Report (Matrix, 2019), lead is the only COC at the ranges and is the focus of the corrective measures.

1.3.1 *Summary of the Need for Corrective Action*

As identified in the CA (ADEM, 2019), the MDA is responsible for performing corrective measures for any areas where hazardous constituents exceed those appropriate for the protection of human health and the environment.

1.3.2 *Summary of Major Goals of Corrective Action*

The overall purpose of this corrective action is to identify the procedures that will be used to excavate; stabilize, as necessary; and dispose of metals-contaminated soils from within the Range 30 Impact Area. The Range 30 Impact Area will be remediated to the cleanup levels for lead based on the future land use of the property (500 mg/Kg or 800 mg/Kg) and the prior MEC cleanup approach.

1.3.3 *List of Major Components of the Plan*

There are six major components of the technical approach of this remedial project:

- A treatability study may be performed to identify the best stabilization formulation,
- Delineation of the horizontal and vertical extent of impacted soils,
- Excavation of treated and untreated soils that exceed cleanup levels,
- In-situ stabilization of soils that could exceed the RCRA toxicity characteristics,
- Backfill of all remediated areas in one-foot MEC clearance areas to pre-excavation elevations,
- Restoration of ground cover, and

- Transportation of excavated soils to the designated disposal facility.

1.3.4 Summary of How the Planned Action will Achieve Goals

Soils will be characterized and removed as needed to achieve the cleanup standards. Pre- and post-excavation confirmation samples will be collected to verify that targeted areas meet the cleanup levels. Further details of these activities are in subsequent sections of this document. All excavated areas in the one-foot MEC areas will be backfilled with clean soil to the pre-excavation topography. The use of LUCs will be necessary at the Range 30 Impact Area following the completion of remediation activities due to presence of constituents in soils above human health residential standards (400 mg/Kg), a potential for MEC presence, or if another as yet unidentified condition exists at the site. Final LUCs and their extent cannot be fully identified until the completion of the remediation activities. The final LUCs shall be submitted under separate cover after the completion of the corrective measures.

2 SITE CHARACTERIZATION

2.1 Site Description and Operational History

2.1.1 *Site Description and History of the Range 30 Impact Area*

The Range 30 Impact Area, consisting of the Range 30: End-of-Cycle Test Range, Parcel 88Q, and Former Rifle/Machine Gun Range, Parcel 103Q is in the northern part of McClellan, southeast of Reilly Airfield. Parcel 103Q is approximately 25 acres and Parcel 88Q is roughly 545 acres including the range safety fan. The Range 30 Impact Area is limited to the approximately 35-acre portion of the historical Range 30 operations area located at the base of the unnamed hillside of Parcels 88Q and 103Q. Parcel 88Q was also known as Range 30: Confidence Course (ESE, 1998). The Site is bounded to the north by an unpaved road that crosses Parcel 231(7) and intersects Falcon Road and is bounded to the south by an unpaved road near the top of an unnamed hillside. The ground surface of the area slopes to the northwest. Ground elevation ranges from approximately 750 feet above mean sea level in the northwest, to approximately 1,050 feet at the peak of the unnamed hill used as the backstop for range activities to the south.

2.1.1.1 Range 30: End-of-Cycle Test Range, Parcel 88Q

Range 30 was used from 1977 to sometime between 1983 and 1989 for end-of-cycle training (ESE, 1998). End-of-cycle testing was the last phase of basic training prior to graduation. Arms fired at this range included: M-16 blanks, flares and simulators, M-60 machine guns, and 0.30 caliber ordnance. Based on the location of Reilly Airfield to the northwest, the position of the Range 30 Firing Line, and the orientation of the range fan presented in the Environmental Baseline Survey (EBS) prepared by Environmental Science and Engineering, Inc. (ESE, 1998), the direction of fire for Range 30 would have been to the southeast toward the unnamed hillside. The EBS does not depict an impact area for Parcel 88Q firing activities. However, the impact area for Parcel 103Q is identified in the EBS as the hillside.

2.1.1.2 Former Rifle/Machine Gun Range, Parcel 103Q

A 1937 aerial photograph reveals a clearing in the area occupied by Parcel 103Q. Exact dates of use and ordnance used are not described in the EBS. The Archive Search Report (ASR, U.S. Army Corps of Engineers [USACE], 1999) plates show activity in this area as early as World War I. The ASR identifies the area as OA-08, or, during subsequent years, by one of the following names: Tank Sub-Caliber Range, Carbine Transition Range (R-32), and/or Machine Gun Range (R-34) (USACE, 1999). During the 1950's sub-caliber devices for use in tank main guns, included 37mm ammunition with black powder charges were also used here.

2.2 Site Specific Geology, Soils, and Hydrogeology

Regional geology, soils, and hydrogeology information was presented in the SWCMIP. The information presented below was adapted from the RI (Shaw, 2009).

2.2.1 *Site Specific Geology*

The bedrock under the area of investigation is bisected by the Jacksonville fault. The fault trace and geologic contacts strike generally northeast to southwest with transport direction of the thrust sheet to the northwest. Bedrock south of the fault is mapped as the Cambrian Chilhowee Group, undifferentiated. Most of the undifferentiated Chilhowee Group bedrock in the vicinity of McClellan belongs to the Weisner Formation based upon the abundance of orthoquartzitic sandstone and quartzite (Osborne and Szabo, 1984). Bedrock north of the

fault is mapped as the Cambrian Conasauga Formation. The Conasauga Formation is composed of dark-gray, finely to coarsely crystalline, medium- to thick-bedded dolomite with minor shale and chert (Osborne et al, 1989).

2.2.2 Site Specific Soil

The soil survey for Calhoun County, Alabama, classifies soil at the Impact Area for Range 30, Parcel 88Q and Former Rifle/Machine Gun Range, Parcel 103Q, as Stony Rough Land sandstone, Anniston and Allen gravelly loam, and Anniston gravelly clay loam (USDA, 1961). The Stony Rough Land sandstone consists of medium to strongly acidic, shallow or stony, well-drained, friable soils with many outcrops of sandstone and quartzite bedrock, loose rock fragments, and scattered patches of sandy soil material. It is found in rough mountainous areas with slopes generally greater than 25 percent (USDA, 1961).

The Anniston and Allen gravelly loam consists of deep, strongly to very strongly acidic, well-drained, friable soils developed from weathered sandstone, shale and quartzite. The surface soil is dark brown to dark reddish-brown gravelly loam. The subsurface soil is dark red to yellowish- red, gravelly fine sandy clay loam to clay loam (USDA, 1961). The Anniston gravelly clay loam consists of friable, medium to strongly acidic, deep, well-drained soils that have developed from weathered sandstone, shale, and quartzite. Sandstone and quartzite gravel, cobbles, and fragments as large as eight inches in diameter are found on the surface and throughout the soil. The color of the Anniston gravelly clay loam surface soil ranges from dark brown and very dark brown to reddish brown and dark reddish brown. The texture of subsoil ranges from light clay loam to clay or silty clay loam (USDA, 1961).

2.2.6 Site Specific Hydrogeology

Although groundwater elevations were not measured during the RFI activities, regional groundwater flow in the bedrock was approximated for the McClellan vicinity by the USGS. Regional groundwater elevation ranged from 800 feet above msl on the main base to about 600 feet above msl to the west on Pelham Range, based on water depths in wells completed across multiple formations. Groundwater elevation data suggests that regional groundwater flow is from the Main Post to the northwest with the groundwater surface broadly coinciding with the surface topography. Groundwater flow on a local scale may be more complex and may be affected by geologic structures such as the shallow thrust faults, rock fracture systems, and karst development in soluble formations (IT, 2003).

The Site Investigation conducted at the Range 30 Firing Line Area located adjacent to and immediately north of the Range 30 Impact Area encountered groundwater from approximately 29 to 64 feet below ground surface (ft bgs). The groundwater flow direction at the Range 30 Firing line appears to be to the northwest, following topography (Shaw, 2006).

2.3 Summary of Previous Investigations

An RFI was performed by Matrix (2019) to identify the nature and extent of contamination associated with the Range 30 Impact Area. Lead was identified as the only COC in total soil (surface soil and subsurface soil combined) at the Site that may pose an increased risk to ecological receptors. The total representative concentration for lead in soil was 594 mg/Kg which exceeded the Ecological Risk-Based Remedial Goal (Eco-RBRG) of 500 mg/Kg (Matrix, 2019). Without sample R30-103Q-007 (0-0.5), the total representative concentration for lead in soil was 445 mg/Kg and suggests that the area of increased ecological risk may be confined to a small area in the vicinity of sample R30-103Q-007 (0-0.5) in the central portion of the Site (Figure 3).

Below is a summary of additional plans/investigations/reports performed and a brief summary of those documents.

Final Environmental Baseline Survey – The Environmental Baseline Survey was prepared by Environmental Science & Engineering, Inc. (ESE) in 1998 to document the current environmental condition of McClellan at the time. The EBS was conducted in accordance with the requirements of the Community Environmental Response Facilitation Act, amended Section 120 (h) of the Comprehensive Environmental Response, Compensation, and Liability Act.

Site Investigation Report – IT prepared a letter Site Investigation (SI) report, dated February 26, 2002, to document the SI activities conducted at the Site. The SI consisted of a site walk by IT personnel at the Site in October 2001. Numerous bullet fragments were observed over much of the area and were concentrated along the slope and base of the hillside. No environmental samples were collected as part of the SI.

Based on the indications of the SI, IT surmised that the past operations at the Site may have adversely impacted the environment. The bullets observed on the surface may indicate that lead concentrations in soil may pose an unacceptable risk to human health and the environment. The SI information for the Impact Area for the Site was presented to the Base Cleanup Team (BCT) in January 2003 (IT, 2002b). Further investigation at the Impact Area for the Site was recommended to define nature and extent of the lead contamination in soil.

Sitewide Corrective Measures Implementation Plan – A CMIP was prepared to describe the methods and procedures that will be used to address the remediation of metals-impacted soils from all the former small arms firing ranges and other potential areas of concern located at McClellan. The CMIP describes the general remediation process that will be used to perform the remediation of these areas, including additional characterization, excavation, disposal, and restoration of the remediation sites. Specifics regarding the remediation process may be found in the Site-Wide Corrective Measures Implementation Plan for Soil Remediation, Fort McClellan, Anniston, Alabama (Matrix, 2017).

After Action Report, Munitions Response Sites 12 and 13 (MRS-12 and MRS-13) – Matrix performed the MEC clearance of M6-1M Suspect Area (North) PR in accordance with the Final EE/CA Action Memorandum Alpha Munitions Response Site 12 and 13 (Matrix, 2010). The sub-sector M6-1M Suspect Area (North) PR was designated as Tract 12-C in MRS-12. All of Tract 12-C was first cleared to 1 foot using mag and dig methods. The northern edge of Tract 12-C which corresponded to the area outside the McClellan Park System was cleared to the depth of detection using mag and dig methods as this area was too steep to perform digital geophysical mapping (Matrix, 2014). No MEC was recovered during the clearance activities. Pieces of MEC scrap were recovered consisting primarily of 3.5-inch rockets, rifle grenades (smoke) and 37mm HE projectiles. Some small arms ammunition was also recovered.

3 CONTAMINANT FATE AND TRANSFER

3.1 Contaminant of Concern

Lead is the only COC identified in the RFI Report for the Range 30 Impact Area in surface and subsurface soils and is the metal most commonly associated with small arms ranges.

3.2 Affected Media

Contaminated media at the Site consists of surface and subsurface soil.

3.3 Extent and Distribution of Contaminated Media

The extent of lead-impacted soil in the area where the proposed future land use is wildlife habitat exceeding the Eco-RBRG of 500 mg/Kg is shown in Figure 3. The area cleared of munitions to a depth of 1 foot as part of the MRS-12 remediation is also shown in Figure 3. Based on this, the vertical extent of metals remediation will be limited to a depth of six to nine inches in those areas where the remediation overlaps MEC areas that were cleared to a depth of one foot. There were no soil samples exceeding the industrial cleanup level of 800 mg/Kg in the area where the proposed future land use is industrial.

3.4 Determination of COCs

The RFI identified lead in soil to be of potential risk to the environment. Groundwater and surface water were not identified as media of concern in the RFI. Although the concentration and distribution of lead soil may have changed since the field investigation, it is expected that the soil contamination identified in the RFI Report is still present with a few exceptions likely due to erosion in the intervening years since the completion of the RFI.

4 CORRECTIVE ACTION

4.1 Design Objectives

The objective of the corrective measures is to address lead in site soils at the Site to mitigate potential human health and ecological risks.

4.1.1 Remediation Goals

The target remedial goals have been designed to ensure the protection of human health and the environment. These goals (Table 1) are based on both industrial and ecological risk-based remedial goals. The ecological remedial goals were determined in the *Final – Revision 2, Identification of Ecological Risk-Based Remedial Goals, Iron Mountain Road and Bains Gap Road Ranges* (Shaw, 2010). The cleanup levels are based on an anticipated future land use of wildlife habitat and industrial.

Table 1 – Cleanup Levels for Surface and Subsurface Soils

Soil COC	Ecological Cleanup Levels (mg/Kg)	Industrial Cleanup Levels (mg/Kg)	Maximum Detected Concentration (mg/Kg)
			Range 30 Impact Area
Lead	500	800	1,480

4.1.1.1 Range 30 Impact Area

The Range 30 Impact Area will be remediated as described in the SWCMIP. Due to the one-foot MEC clearance conducted in MRS-12, Tract 12-C within the wildlife habitat area, the remediation will be performed at 6 – 9 in bgs in this area. This area will be backfilled with clean soil to the pre-remediation contours. In the event the lateral excavation is extended outside the one-foot MEC clearance area, the vertical extent of remediation will not be limited and will be performed until post-excavation confirmation samples achieve the cleanup levels of 500 mg/Kg within the wildlife habitat land use area and 800 mg/Kg if extended into the area where the proposed future land use is industrial.

4.1.2 Projected Time Frame for Remedy and Effectiveness Reporting

The time frame for remediation will vary greatly depending on the size, current accessibility, and contractor availability. It is anticipated that the remediation project will take less than one year to complete field activities, thus it is expected that no effectiveness monitoring reports will be required during the implementation of the corrective measures.

4.2 Regulatory Requirements

The primary regulatory driver for this corrective action is the CA between ADEM and the MDA (Mod 5, 2019). The primary regulatory requirements are the state and federal rules and regulations pertaining to RCRA and corrective measures and ADEM guidance manuals, specifically:

- ADEM Division 14 (Land Division - Hazardous Waste Program) Rules (ADEM Administrative Code r. 335-14);
- Alabama Law under Title 22 of the Code of Alabama including the Alabama Hazardous Wastes Program;
- Alabama Environmental Investigation & Remediation Guidance (AEIRG);
- Alabama Hazardous Waste Management and Minimization Act, Code of Alabama, 1975, as amended, §§ 22-30-1 to 22-30-24;

- Code of Federal Regulations (CFR) Title 40 (40 CFR Parts 260, 261, & 268);
- Alabama Uniform Environmental Covenants Act, Code of Alabama, 1975, as amended, §§ 22-22A-5; and
- Alabama State Soil and Water Conservation Committee guidance including the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas* (SWCC, 2009).

The remediation contractor will also obtain the necessary city, county, and state permits including filing a Notice of Intent (if required) and other permit requirements under Alabama Construction General Permit (General Permit Number ALR100000) as part of National Pollutant Discharge Elimination System requirements.

4.3 Reporting

4.3.1 Corrective Measures Implementation Report (CMIR)

The selected contractor will begin working on the CMIR during site excavation activities. All data necessary for the report will be carefully gathered and documented, including photographs, survey information, field screening results, laboratory analytical data, weight tickets, etc. As remedial excavations are completed, the corresponding sections of the report will be written in draft form. Once remediation activities are complete, these sections will be compiled and polished into a final document. This report represents the final documentation of the site remediation including confirmation sampling results that indicate that “NFA” criteria have been met and upon completion of work activities will be submitted to MDA/Matrix and ADEM for review.

4.3.2 Environmental Covenants

Current plans for the reuse of the property include industrial and wildlife habit. The remediation to ecological and industrial standards will require institutional controls in the form of a restrictive covenant and will be submitted under separate cover. There is currently one environmental covenant that may be affected by the soil remediation. Environmental Covenant FY-16-03.00 was recorded on March 22, 2016 and currently addresses the UXO clearance at MRS-12. The soil remediation will be conducted in the areas covered by this covenant or as amended by this covenant. Environmental Covenant FY-16-03.00 will require modification at the completion of soil remediation to restrict the Range 30 Impact Area from being used for residential purposes and the wildlife habit area remediated to ecological cleanup levels will also be restricted from commercial or industrial development.

LUCs will be necessary in any remediated area that does not achieve residential standards. These LUCs will be in addition to any existing current controls currently in place. Below is an example of draft language that may be used for the modification to the existing covenant:

Residential use of the property is prohibited within the area identified on the Range 30 Impact Area boundary map consisting of the entire Parcel 88Q and 103Q and MRS-12 land use restriction boundary. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.

Industrial use of the property is limited to within the confines of the Covenant Boundary of the Range 30 Impact Area identified as non-wildlife habitat area. Industrial land uses include, but are not limited to, manufacturing, processing, or storing of raw materials.

For Parcel 88Q, 103Q and MRS-12 the use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.

5 CONCLUSIONS AND RECOMMENDATIONS

This SSA to the SWCMIP for Soil Remediation (Matrix, 2018) presents the recommended approach for addressing metal-contaminated soil at the Range 30 Impact Area. The CMIR will evaluate project goals and evaluate project effectiveness. In addition, any recommendations for further corrective measures will be included in this report; however, it not anticipated that additional corrective measures will be necessary given the scope of this work.

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Figures

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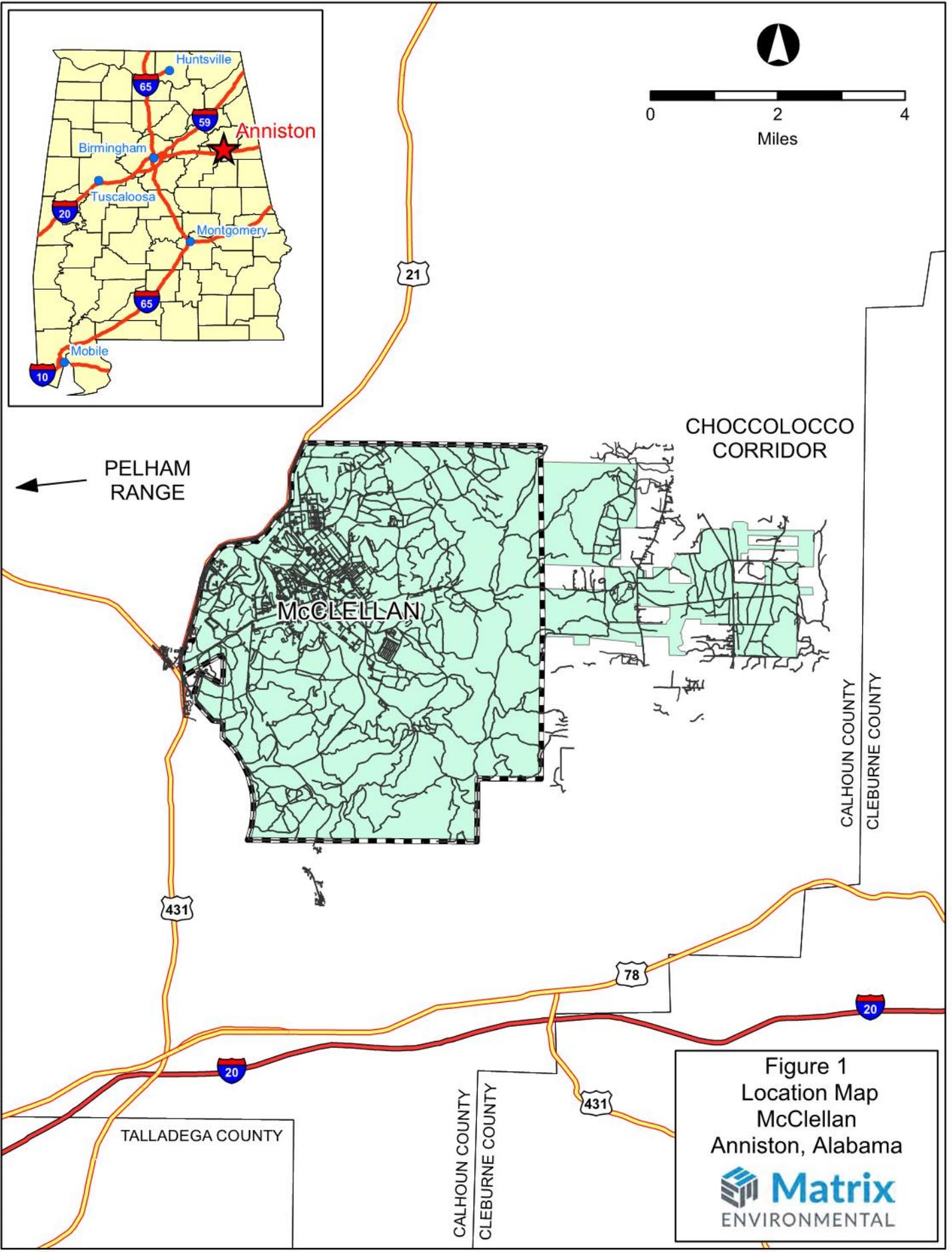
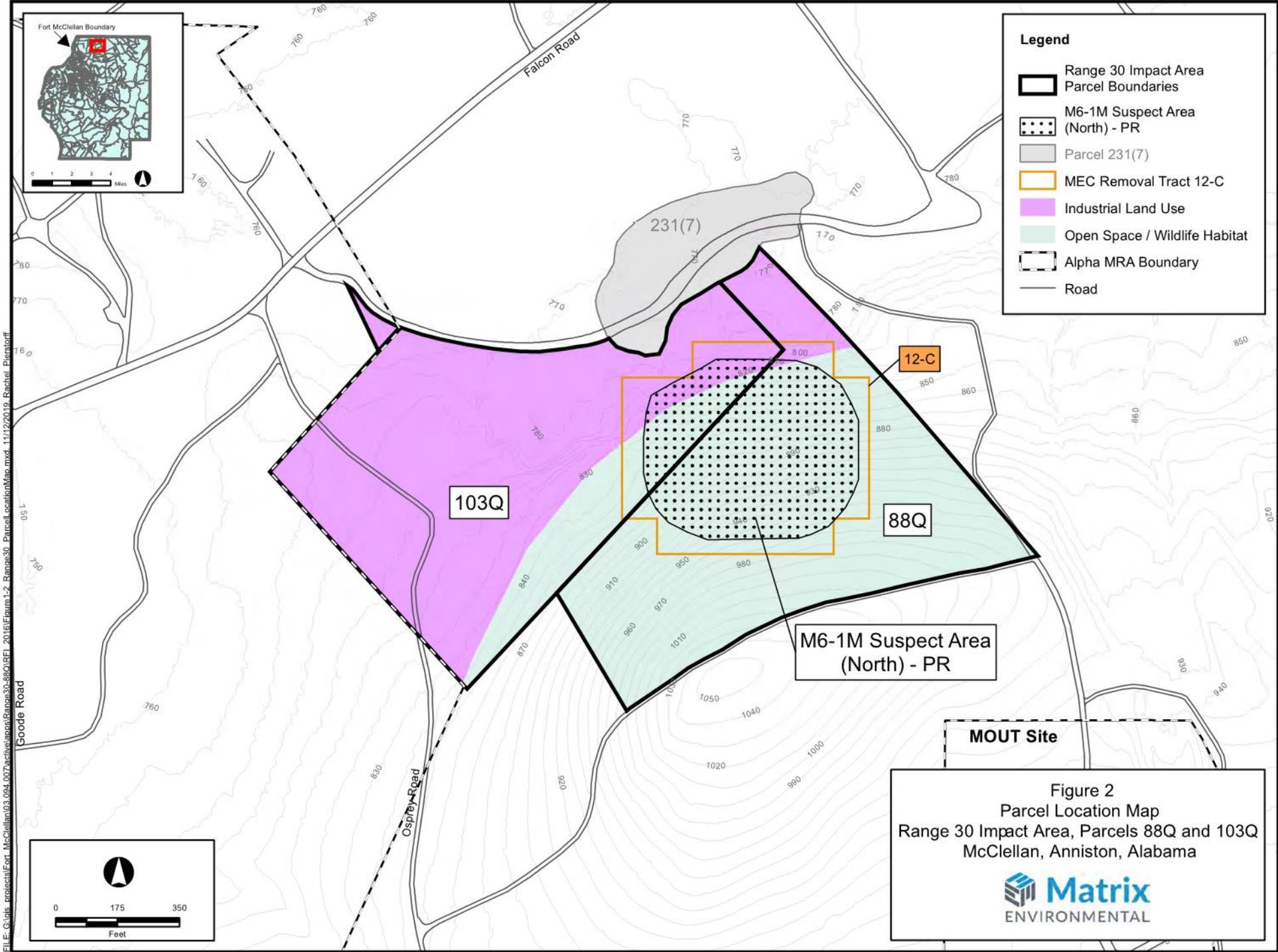


Figure 1
Location Map
McClellan
Anniston, Alabama





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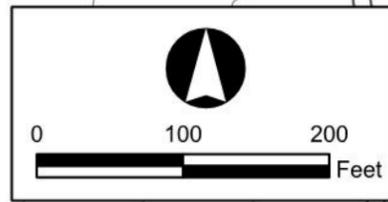
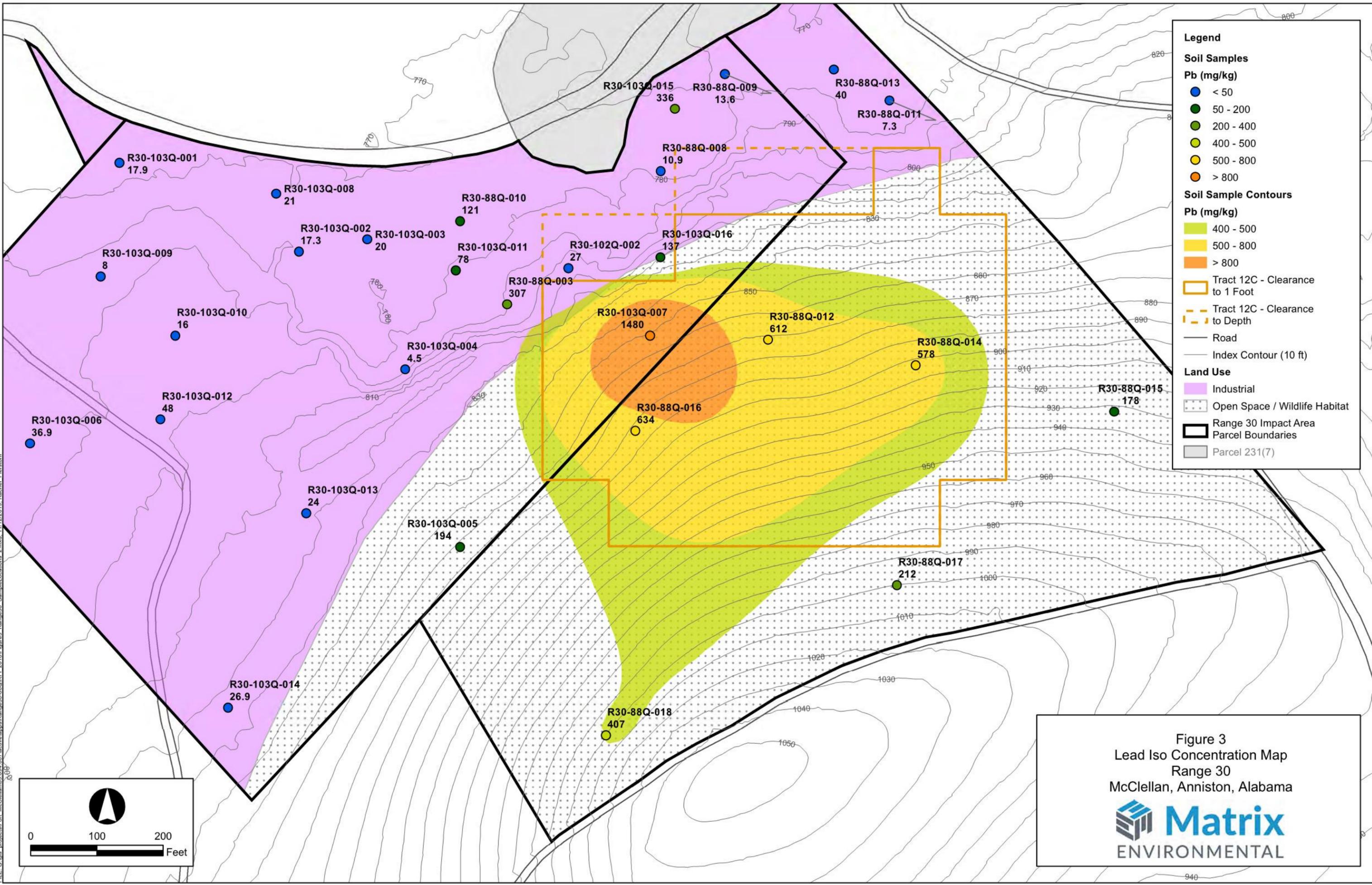


Figure 3
 Lead Iso Concentration Map
 Range 30
 McClellan, Anniston, Alabama

Appendix A

Key Figures from the Remedial Investigation Report

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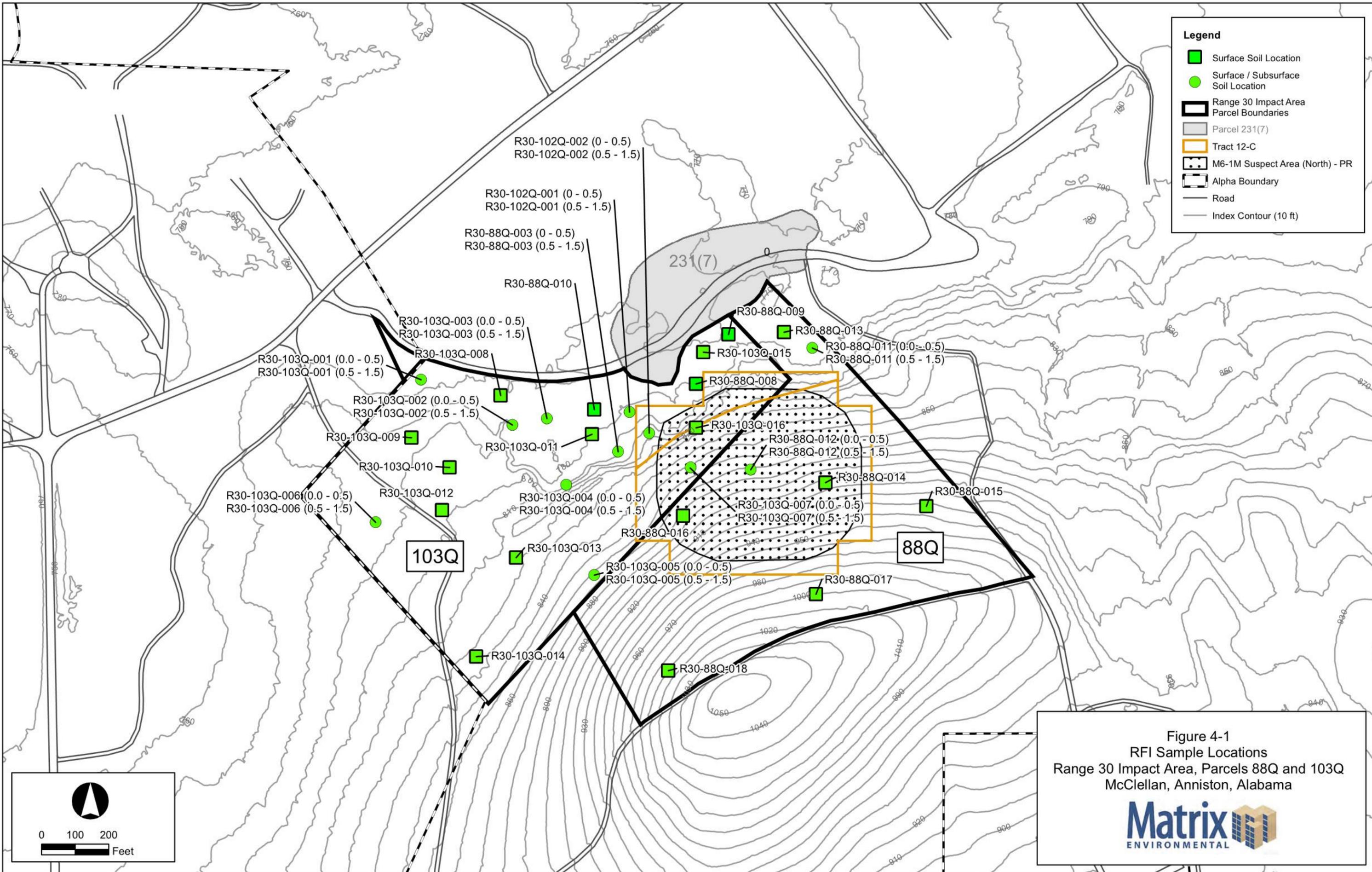
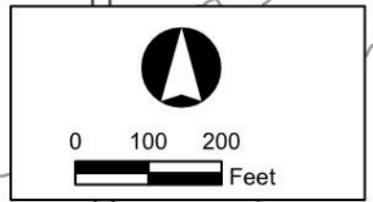


Figure 4-1
RFI Sample Locations
Range 30 Impact Area, Parcels 88Q and 103Q
McClellan, Anniston, Alabama



FILE: G:\gis_projects\Fort_McClellan\03_094_007\active\apps\Range30-88Q\RFI_2015\Figures-1_Range30_SurfSoil_PSV.mxd, 8/17/2015, jeff_cblnts

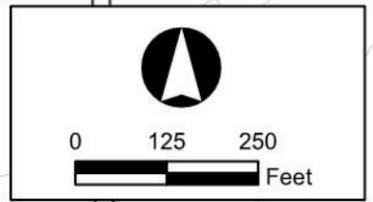
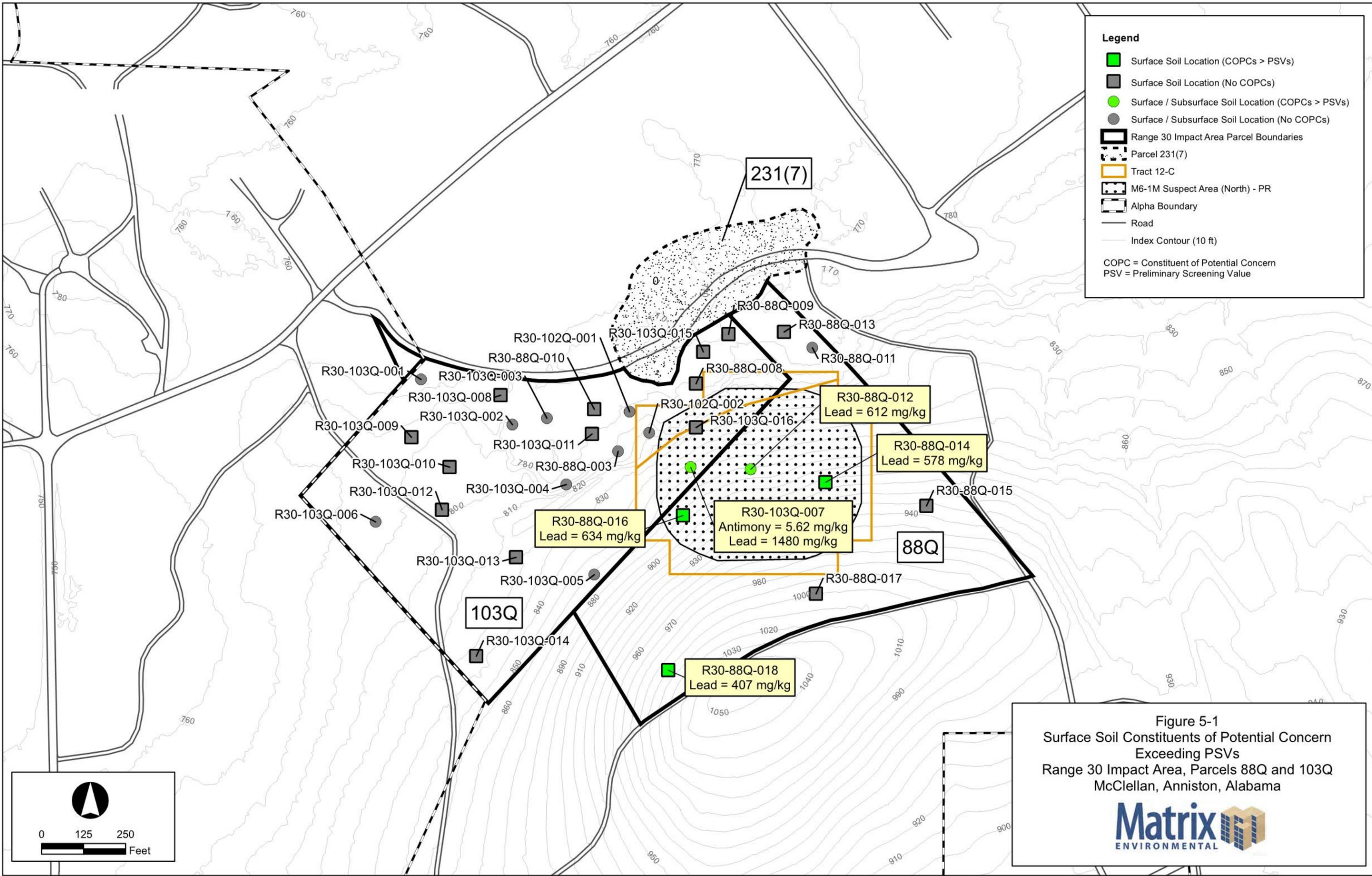
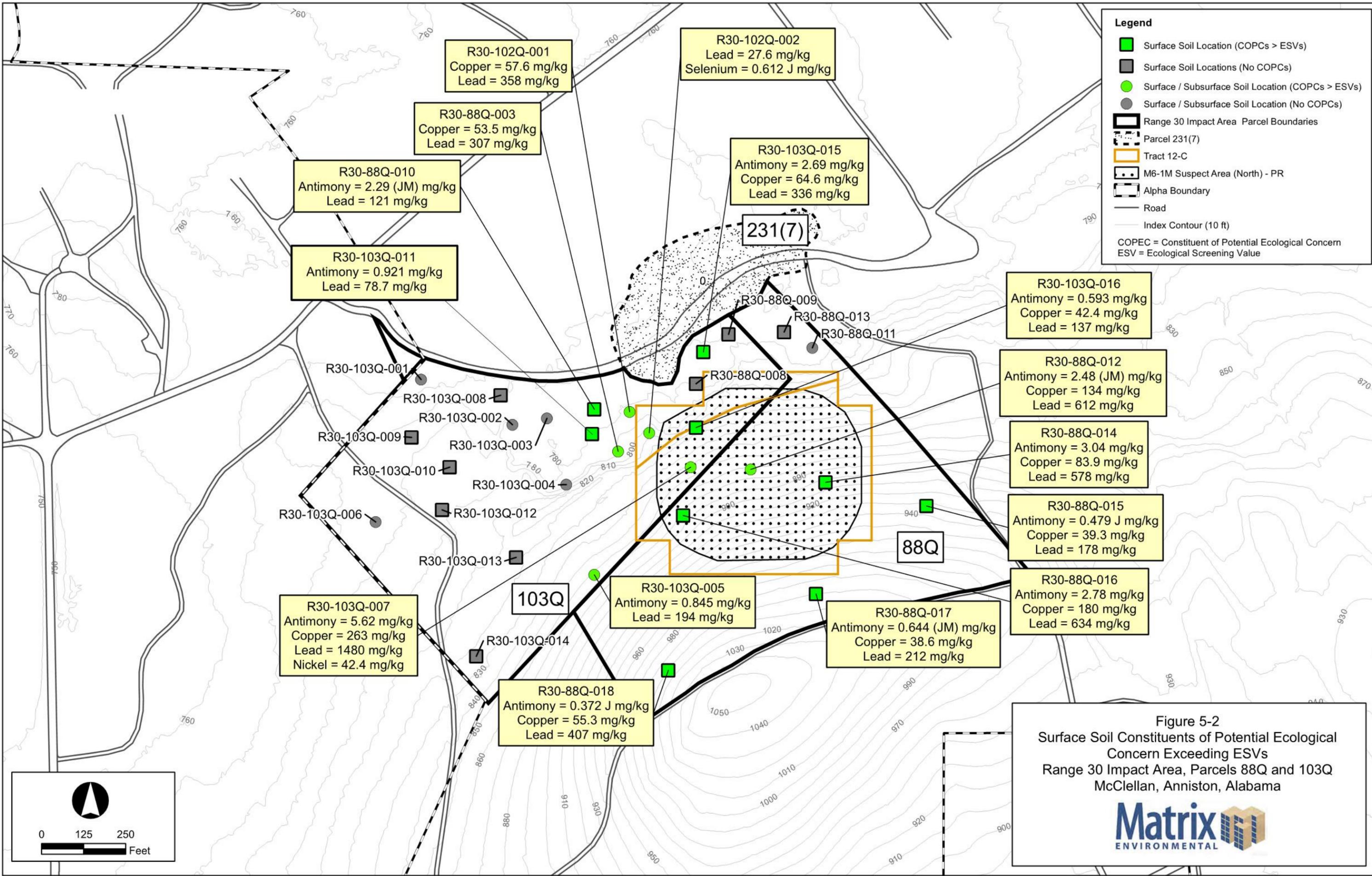


Figure 5-1
Surface Soil Constituents of Potential Concern
Exceeding PSVs
Range 30 Impact Area, Parcels 88Q and 103Q
McClellan, Anniston, Alabama

FILE: G:\gis_projects\Fort_McClellan\03_094_007\active\apps\Range30-88Q\RFI_2015\Figures-2_Range30_SurfSoil_ESVs.mxd, 10/20/2015, jeff_clients



R30-102Q-001
Copper = 57.6 mg/kg
Lead = 358 mg/kg

R30-102Q-002
Lead = 27.6 mg/kg
Selenium = 0.612 J mg/kg

R30-88Q-003
Copper = 53.5 mg/kg
Lead = 307 mg/kg

R30-88Q-010
Antimony = 2.29 (JM) mg/kg
Lead = 121 mg/kg

R30-103Q-015
Antimony = 2.69 mg/kg
Copper = 64.6 mg/kg
Lead = 336 mg/kg

R30-103Q-011
Antimony = 0.921 mg/kg
Lead = 78.7 mg/kg

R30-103Q-016
Antimony = 0.593 mg/kg
Copper = 42.4 mg/kg
Lead = 137 mg/kg

R30-88Q-012
Antimony = 2.48 (JM) mg/kg
Copper = 134 mg/kg
Lead = 612 mg/kg

R30-88Q-014
Antimony = 3.04 mg/kg
Copper = 83.9 mg/kg
Lead = 578 mg/kg

R30-88Q-015
Antimony = 0.479 J mg/kg
Copper = 39.3 mg/kg
Lead = 178 mg/kg

R30-88Q-016
Antimony = 2.78 mg/kg
Copper = 180 mg/kg
Lead = 634 mg/kg

R30-103Q-007
Antimony = 5.62 mg/kg
Copper = 263 mg/kg
Lead = 1480 mg/kg
Nickel = 42.4 mg/kg

R30-103Q-005
Antimony = 0.845 mg/kg
Lead = 194 mg/kg

R30-88Q-017
Antimony = 0.644 (JM) mg/kg
Copper = 38.6 mg/kg
Lead = 212 mg/kg

R30-88Q-018
Antimony = 0.372 J mg/kg
Copper = 55.3 mg/kg
Lead = 407 mg/kg

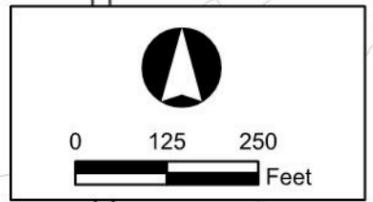
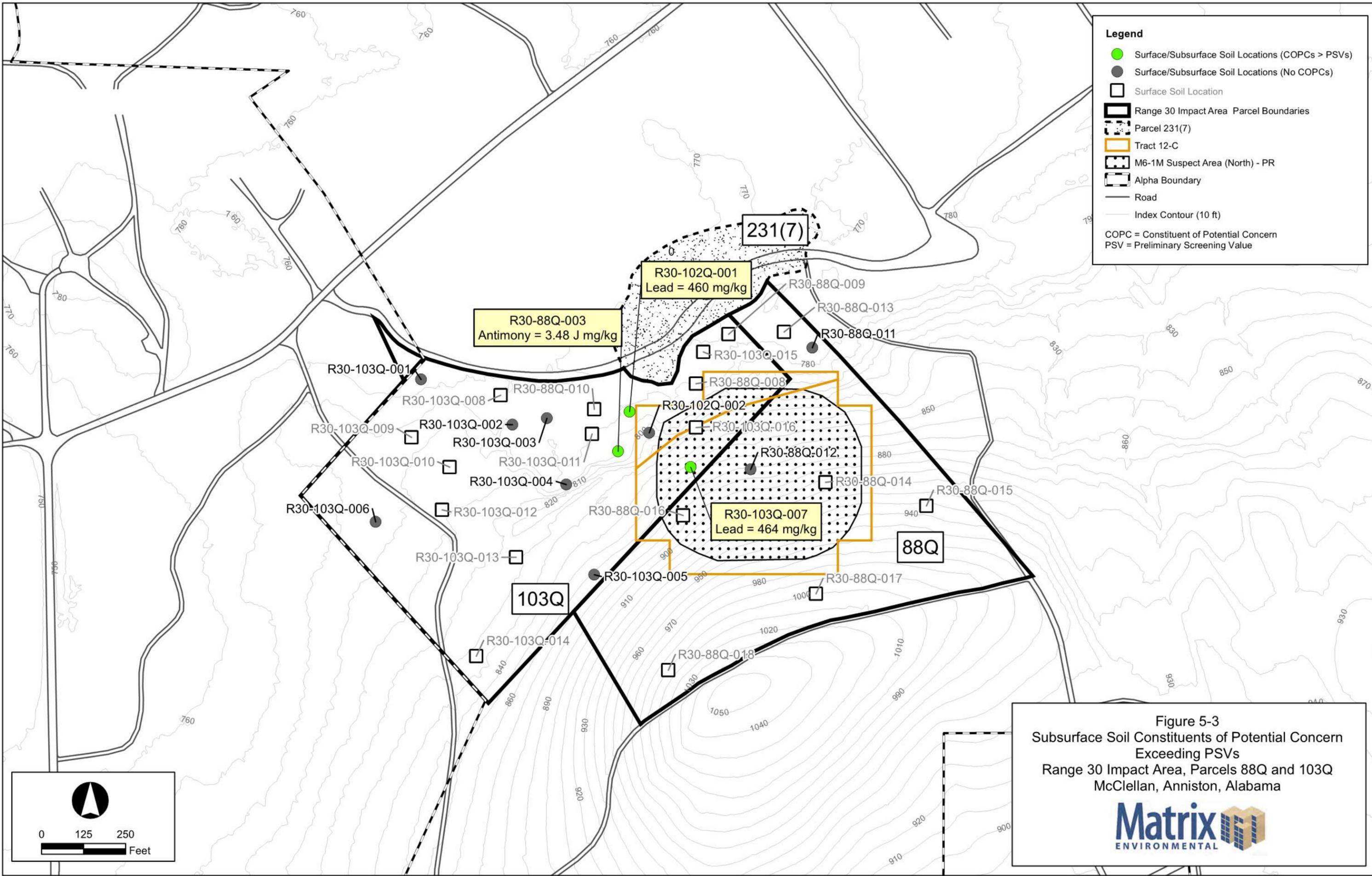


Figure 5-2
Surface Soil Constituents of Potential Ecological Concern Exceeding ESVs
Range 30 Impact Area, Parcels 88Q and 103Q
McClellan, Anniston, Alabama

Matrix ENVIRONMENTAL

FILE: G:\gis_projects\Fort_McClellan\03_094_007\active\apps\Range30-88Q\RFI_2015\Figure5-3_Range30_SubSurface_PSVs.mxd, 8/14/2015, jeff_clovis



Legend

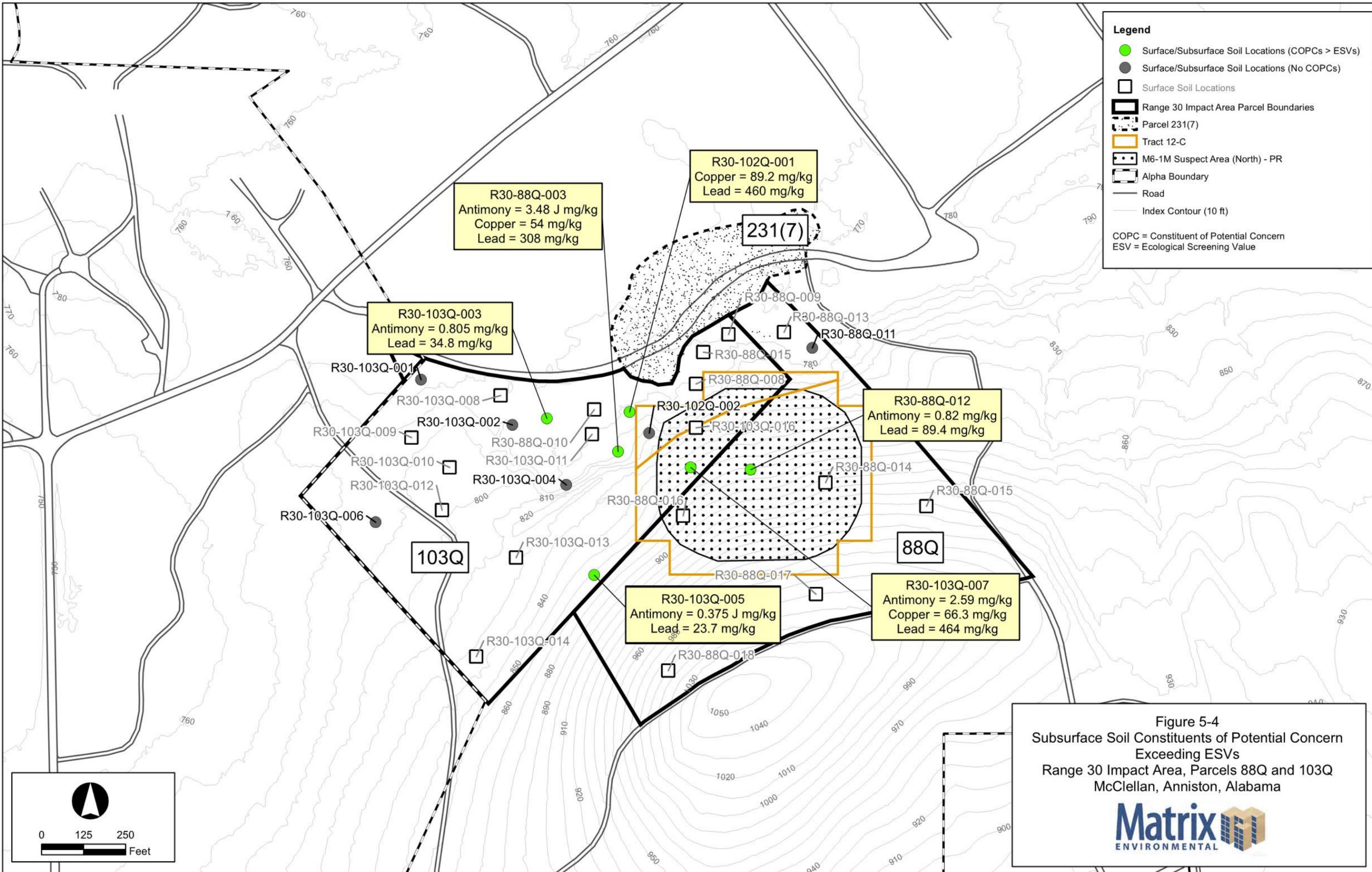
- Surface/Subsurface Soil Locations (COPCs > PSVs)
- Surface/Subsurface Soil Locations (No COPCs)
- Surface Soil Location
- ▭ Range 30 Impact Area Parcel Boundaries
- ▨ Parcel 231(7)
- ▭ Tract 12-C
- ▨ M6-1M Suspect Area (North) - PR
- ▭ Alpha Boundary
- Road
- Index Contour (10 ft)

COPC = Constituent of Potential Concern
PSV = Preliminary Screening Value

0 125 250
Feet

Figure 5-3
 Subsurface Soil Constituents of Potential Concern Exceeding PSVs
 Range 30 Impact Area, Parcels 88Q and 103Q
 McClellan, Anniston, Alabama

FILE: G:\gis_projects\Fort_McClellan\03_094_007\active\apps\Range30-88Q\RFI_2015\Figures4_Range30_SubSurface_ESVs.mxd, 8/14/2015, jeff_clients



Legend

- Surface/Subsurface Soil Locations (COPCs > ESVs)
- Surface/Subsurface Soil Locations (No COPCs)
- Surface Soil Locations
- ▬ Range 30 Impact Area Parcel Boundaries
- ▬ Parcel 231(7)
- ▬ Tract 12-C
- ▬ M6-1M Suspect Area (North) - PR
- ▬ Alpha Boundary
- Road
- Index Contour (10 ft)

COPC = Constituent of Potential Concern
ESV = Ecological Screening Value

Figure 5-4
 Subsurface Soil Constituents of Potential Concern Exceeding ESVs
 Range 30 Impact Area, Parcels 88Q and 103Q
 McClellan, Anniston, Alabama

February 6, 2020
Revised March 27, 2020

Mr. Jason Wilson, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

**Subject: Corrective Measures Implementation Plan (CMIP)
Range 29,
Parcels 87 Q-X, 110Q, 111Q, 239 Q-X
McClellan, Anniston, Alabama**

Dear Mr. Wilson:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit this *Corrective Measures Implementation Plan (CMIP), Range 29* for your review. Alabama Department of Environmental Management (ADEM) concurred on August 13, 2019 with the recommendation for no further action with land use controls in the *Final RCRA Facility Investigation (RFI) Report for Range 29* dated August 6, 2019. The August 13, 2019 concurrence letter also included a requirement that the MDA submit a CMIP and draft covenant for review and approval. The property (parcels) that comprise Range 29 extends into two existing environmental covenants. Environmental covenants FY17-01.00 and FY17-04.00 will be modified to incorporate the recommended land use controls for Range 29 as are described below and depicted in the attached Figures 1 and 2. The proposed land use restrictions for environmental covenant FY17-01.00 are as follow:

Activities that violate the following restrictions shall not take place on the Property without obtaining prior written approval from ADEM:

- (i) Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Prohibition Areas 2-Da, 2-Db, 2-Dc, 2-Dd, 2-De, 2-F, 2-Ha, 2-Hb and 2-J or within the Archaeology Site Boundary or within the confines of an area three feet either side and including the area underneath the Industrial Access Road, Cassell Way, Town Center Drive and Halifax Avenue within MRS-2.
- (ii) Residential use of the property is prohibited within the area identified on the covenant boundary map consisting of Parcels 83Q, 224Q, 226Q, 79Q, 227Q, 87Q-X, 239Q-X and 110Q. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
- (iii) For Parcels 83Q, 224Q, 226Q, 79Q, 227Q, 87Q-X, 239Q-X and 110Q the use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.

- (iv) The MDA reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

The proposed land use restrictions for environmental covenant FY17-04.00 are as follow:

Activities that violate the following restrictions shall not take place on the Property without obtaining prior written approval from ADEM:

- (i) Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Digging Prohibition Area 4-E, 4-F, and 4-G.
- (ii) Residential use of the property is prohibited within the area identified on the covenant boundary map consisting of Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 111Q, 239Q-X and 87Q-X. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
- (iii) For Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 111Q, 239Q-X and 87Q-X the use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
- (iv) Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

Upon ADEM concurrence the revised environmental covenants will be submitted to ADEM under separate cover for signature and filing in Probate. Two hard copies and one electronic copy of the CMIP have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

CC: Ms. Brandi Little, ADEM
Mr. Jason Odom, MDA (transmittal letter only)
MES Project Files

February 6, 2020
Revised March 27, 2020

Mr. Jason Wilson, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

**Subject: Corrective Measures Implementation Plan (CMIP)
Range 29,
Parcels 87 Q-X, 110Q, 111Q, 239 Q-X
McClellan, Anniston, Alabama**

Dear Mr. Wilson:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit this *Corrective Measures Implementation Plan (CMIP), Range 29* for your review. Alabama Department of Environmental Management (ADEM) concurred on August 13, 2019 with the recommendation for no further action with land use controls in the *Final RCRA Facility Investigation (RFI) Report for Range 29* dated August 6, 2019. The August 13, 2019 concurrence letter also included a requirement that the MDA submit a CMIP and draft covenant for review and approval. The property (parcels) that comprise Range 29 extends into two existing environmental covenants. Environmental covenants FY17-01.00 and FY17-04.00 will be modified to incorporate the recommended land use controls for Range 29 as are described below and depicted in the attached Figures 1 and 2. The proposed land use restrictions for environmental covenant FY17-01.00 are as follow:

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- (i) Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Prohibition Areas 2-Da, 2-Db, 2-Dc, 2-Dd, 2-De, 2-F, 2-Ha, 2-Hb and 2-J or within the Archaeology Site Boundary or within the confines of an area three feet either side and including the area underneath the Industrial Access Road, Cassell Way, Town Center Drive and Halifax Avenue within MRS-2.
- (ii) Residential use of the property is prohibited within the area identified on the covenant boundary map consisting of Parcels 83Q, 224Q, 226Q, 79Q, 227Q, ~~79Q87Q-X~~, 239Q-X and 110Q. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
- (iii) For Parcels 83Q, 224Q, 226Q, 79Q, 227Q, ~~79Q87Q-X~~, 239Q-X and 110Q the use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.

- (iv) The MDA reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

The proposed land use restrictions for environmental covenant FY17-04.00 are as follow:

Activities that violate the following restrictions shall not take place on the Property without obtaining prior written approval from ADEM:

- (i) Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Digging Prohibition Area 4-E, 4-F, and 4-G.
- (ii) Residential use of the property is prohibited within the area identified on the covenant boundary map consisting of Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 111Q, 239Q-X and 87Q-X. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
- (iii) For Parcels 83Q, 223Q, 86Q, 224Q, 226Q, 79Q, 227Q, 84Q-X, 110Q, 111Q, 239Q-X and 87Q-X the use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
- (iv) Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

Upon ADEM concurrence the revised environmental covenants will be submitted to ADEM under separate cover for signature and filing in Probate. Two hard copies and one electronic copy of the CMIP have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

CC: Ms. Brandi Little, ADEM
Mr. Jason Odom, MDA (transmittal letter only)
MES Project Files

March 27, 2020

Mr. Jason Wilson Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Response to ADEM Comments dated March 24, 2020 associated with the Corrective Measures Implementation Plan (CMIP) Range 29, Parcels 87 Q-X, 110Q, 111Q, 239 Q-X McClellan, Anniston, Alabama

Dear Mr. Wilson:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit the Response to ADEM Comments dated March 24, 2020 associated with the Corrective Measures Implementation Plan (CMIP) Range 29, Parcels 87 Q-X, 110Q, 111Q, 239 Q-X McClellan, Anniston, Alabama; dated February 6, 2020. Also included are two copies of the revised document and a redline strike out version to assist in your review.

Two hard copies have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

Response to ADEM Comments dated March 24, 2020

RE: *Corrective Measures Implementation Plan Range 29, Parcels 87 Q-X, 110Q, 111Q, 239 Q-X*; dated February 6, 2020 Fort McClellan, Alabama

Specific Comment 1

Page 1. Bulleted item (ii) for environmental covenant FY-17-01.00 identifies parcels where residential use is prohibited. The list erroneously includes parcel 79Q twice and excludes parcel 87Q-X. Please address.

MDA Response:

Text has been revised.

Specific Comment 2

Page 1. Bulleted item (iii) for environmental covenant FY-17-01.00 identifies the parcels where the use of groundwater beneath the property is prohibited for any purpose other than groundwater monitoring. The list erroneously includes parcel 79Q twice and excludes 87Q-X. Please address.

MDA Response:

Text has been revised.

Specific Comment 3

Page 2. Bulleted item (ii) for environmental covenant FY-17-04.00 identifies parcels where residential use is prohibited. The list erroneously includes parcel 87Q. Please revise the text to identify the parcel as 87Q-X.

MDA Response:

Text has been revised.

Specific Comment 4

Page 2. Bulleted item (iii) for environmental covenant FY-17-04.00 identifies the parcels where the use of groundwater beneath the property is prohibited for any purpose other than groundwater monitoring. The text erroneously includes parcel 87Q. Please revise the text to identify the parcel as 87Q-X.

MDA Response:

Text has been revised.



Matrix Environmental Services, LLC
283 Rucker St.
Anniston, AL 36205
O 256.847.0780
F 256.847.0905
matrixdesigngroup.com

April 25, 2024

Ms. Ashley T. Mastin, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Response to ADEM Review and Comments dated April 10, 2024,
RE: *Revised Corrective Measures Implementation Plan (CMIP) for Impact Area South of Prisoner-of-War Training Facility (IASPOW) Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q*; dated October 19, 2023

Dear Ms. Mastin:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit our response to ADEM Review and Comment dated April 10, 2024, RE: *Revised Corrective Measures Implementation Plan (CMIP) for Impact Area South of Prisoner-of-War Training Facility (IASPOW) Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q* dated October 19, 2023. Also included is a copy of the revised pages and a redline strikeout version to assist in your review. Hard copies of the revised pages to be inserted into the original document will be mailed. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC

A handwritten signature in black ink that reads "Richard Satkin".

Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

Excellence by Design

Anniston, AL | Atlanta, GA | Colorado Springs, CO | Denver, CO | Niceville, FL | Parsons, KS | Phoenix, AZ
Sacramento, CA | Tamuning, GUAM | Texarkana, TX | Washington, DC

Response to ADEM Review and Comments dated April 10, 2024

Revised Corrective Measures Implementation Plan (CMIP) for Impact Area South of Prisoner-of-War Training Facility (IASPOW) Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q; dated October 19, 2023

Specific Comment 1:

List of Acronyms. *Please add the following acronyms to the list: RCRA, RFI, IASPOW, mm, POW, and mg/kg. Also, please identify ESE and ARBCA when they are first presented in the document.*

MDA Response:

The acronyms have been added to the list and the first occurrence of ESE and ARBCA have been identified.

Specific Comment 2:

Page 3, Section 3.1. *In Paragraph 2, the document states that “ADEM issued a concurrence with the CMIR [Corrective Measures Implementation Report] for Parcels 100Q and 101Q in April 2015.” Please revise the text to state that the referenced CMIR was for the Firing Line Areas as no CMIR has been submitted for IASPOW.*

MDA Response:

The text has been revised to clarify there was a discrepancy in the site name for the CMIR.

Specific Comment 3:

Appendix A. *Environmental covenant FY-16-03.01 is presented in this appendix. Please note that the hard copy figure included as Exhibit A does not show the complete covenant boundary nor the site boundary for IASPOW. ADEM notes that MDA electronically submitted this revised covenant on December 31, 2023; therefore, it will be addressed under separate cover.*

MDA Response:

No response is required.

**Corrective Measures Implementation Plan
Impact Area South of Prisoner-of-War Training Facility
(IASPOW), Former Rifle/Machine Gun Ranges
Parcels 100Q and 101Q**

McClellan, Anniston, Alabama

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

McClellan Development Authority
Anniston, Alabama

Prepared by:



283 Rucker Street
Anniston, Alabama 36205

October 2023
Revised April 2024

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LIST OF APPENDICES

A	Draft Environmental Covenant FY16-03.01
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LIST OF ACRONYMS

ADEM	Alabama Department of Environmental Management
ARBCA	Alabama Risk-Based Corrective Action Guidance Manual
BTV	Background Threshold Value
CA	Cleanup Agreement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMIP	Corrective Measures Implementation Plan
COC	Constituent of Concern
COPC	Constituent of Potential Concern
EBS	Environmental Baseline Survey
EPA	United States Environmental Protection Agency
ESCA	Environmental Services Cooperative Agreement
ESE	Environmental Science & Engineering, Inc.
ESV	Ecological Screening Value
FOSET	Finding of Suitability for Early Transfer
FOST	Finding of Suitability for Transfer
Ft	Feet
FY	Fiscal Year
IASPOW	Impact Area South of Prisoner-of-War Training Facility
IT	IT Corporation, Inc.
JPA	Anniston-Calhoun County Fort McClellan Development Joint Powers Authority
LUC	Land Use Control
McClellan	Former Fort McClellan
MDA	Calhoun County McClellan Development Authority
MES	Matrix Environmental Services, LLC
mm	millimeter
mg	milligram
mg/kg	milligram per kilogram
MRS	Munition Response Site
PERA	Preliminary Ecological Risk Assessment
POW	Prisoner-of -War
PRA	Preliminary Risk Assessment
RCRA	Resource Conservation Recovery Act
RFI	RCRA Facility Investigation
RSL	Regional Screening Level
Shaw	Shaw Environmental, Inc.
SI	Site Investigation
SRA	Screening Risk Assessment
SSSLs	Site-Specific Screening Levels
U.S.	United States
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

The Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI) conducted at the Impact Area South of Prisoner-of-War Training Facility (IASPOW), Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q (Site) defined the nature and extent of contamination and concluded that the Site is unsuitable for unrestricted reuse (residential). However, the Site does not pose an unacceptable risk to human health and the environment for industrial reuse and therefore No Further Action with Land Use Controls was recommended for the Site. A Corrective Measures Implementation Plan (CMIP) prepared by Matrix Environmental Services, LLC (MES) on behalf of the McClellan Development Authority (MDA) that included a draft of the environmental covenant restrictions was submitted to the Alabama Department of Environmental Management (ADEM) in September 2022. ADEM, in a letter dated September 18, 2023, accepted the proposed land use controls and requested the CMIP be revised to include background and site-specific information and other relevant items listed in the Alabama Environmental Investigation and Remediation Guidance Section 5.3.2 along with a draft of the environmental covenant.

1.1 Background

This work is being performed on behalf of the MDA after assuming from the United States (U.S.) Department of the Army (Army) the responsibility for environmental closure of certain sites at McClellan. Transfer of these sites to the MDA was conducted pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h)(3)(C) which allows federal agencies to transfer contaminated property before all necessary cleanup has taken place.

The basis for the cleanup effort at these parcels is an Environmental Services Cooperative Agreement (ESCA) DASW01-03-2-001 effective September 30, 2003 between the MDA (formerly the Anniston-Calhoun County Fort McClellan Development Joint Powers Authority (JPA)) and the Army (Army, 2003) which was superseded by ESCA Agreement W9128F-07-2-0163 on September 11, 2007 and its subsequent modifications (Army, 2007). In addition, the MDA negotiated a Cleanup Agreement (CA), amended most recently in July 2019, with ADEM that describes the responsibilities for completing the investigation and remediation of potentially impacted sites at McClellan (ADEM, 2003, 2005, 2009, 2011, and 2014). Property that was determined by the Army and ADEM to be suitable for transfer (i.e., “clean property”) was transferred to the JPA under a Finding of Suitability for Transfer (FOST). Subsequently, remaining contaminated property was transferred to the JPA under a Finding of Suitability for Early Transfer (FOSET). The basis for the continuing cleanup effort at these FOSET parcels is the execution of the ESCA and the CA.

Background information contained in the following sections are adapted from previous work performed by Shaw Environmental, Inc. (Shaw), formerly IT Corporation, Inc. (IT), (Shaw, 2003) and MES.

2.0 SITE DESCRIPTION AND HISTORY

The IASPOW is located in the north-central portion of the Main Post of McClellan, south of Falcon Road and Gobbler Road (Figure 2-1). The impact area was identified during a site walk conducted by Shaw personnel in October 2001. The area is an approximately 3.3-acre rectangular area where expended bullets and bullet fragments were observed on the surface, and a possible target berm and some disturbed areas identified from aerial photographs (Figure 2-2). According to the Environmental Baseline Survey (EBS), the range was identified by the Environmental Photographic Interpretation Center (U.S. Environmental Protection Agency [EPA], 1990). Presently, the area is mostly covered with trees and brush; however, grass is found along the northern portion of the Site. The topography in the area of investigation gently slopes to the northwest. Site elevation ranges from approximately 775 to 800 feet (ft) above mean sea level.

The IASPOW is located within the range fans for the Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q. According to the EBS, Parcels 100Q and 101Q are two of seven former rifle/machine gun ranges that were identified on the northern Main Post. The dates of operation and types of specific ordnance fired at these ranges are unknown. According to historical maps, four of these ranges were in use in 1917 and three of the ranges appeared on maps from 1959 and 1966 (Environmental Science & Engineering, Inc. [ESE], 1998). Based on the presence of .30-caliber, 5.56-millimeter (mm), and 7.62-mm bullets observed during the October 2001 site walk, it is assumed that small-arms weapons were used most recently at these ranges.

Impact areas for Parcels 100Q and 101Q were not identified in the EBS. However, based on the orientation of the range fans and firing lines presented in the EBS, the direction of fire for the Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q, was to the southeast. This CMIP addresses only the area identified as the IASPOW. The firing line areas for Parcels 100Q and 101Q, including the former prisoner-of-war (POW) training facility, were investigated and reported separately (IT, 2005).

3.0 INVESTIGATION AND REMEDIATION ACTIVITIES

Shaw conducted a site investigation (SI) at the IASPOW in 2003 to determine whether chemical constituents are present at the Site at concentrations that pose an unacceptable risk to human health or the environment. Shaw conducted the SI in two phases. Phase I field activities performed in January 2002 consisted of the collection and analysis of 11 surface soil samples, 8 subsurface soil samples, and 2 groundwater samples. Two monitoring wells were also installed during Phase I activities. During Phase II activities completed in October 2002, Shaw collected 11 additional surface soil samples, 12 subsurface soil samples, and resampled both monitoring wells previously installed at the Site. Phase II sampling was performed to confirm the presence of organic compounds detected in groundwater and to determine the extent of lead detected in Phase I soil samples. The SI sample locations are shown in Figure 3-1.

Given the SI data were approximately 20 years old, in order to complete an RFI, MES performed supplemental soil sampling in January 2022. MES collected 5-point composite surface and subsurface soil samples for metals over a twenty-five square foot grid at locations IMP-IASPOW-GP10, IMP-IASPOW-GP12, and IMP-IASPOW-GP15, where the three highest lead and copper concentrations were identified during the 2002 SI sampling event (Figure 3-2 and 3-3). The principal purpose of the updated investigation was to provide current data to perform a screening risk assessment (SRA).

3.1 Munitions Remediation and Bullet Pickup

The IASPOW was also included in the MDA's remediation of Munitions Response Sites 12 and 13 (MRSs 12 and 13). Specifically, the IASPOW footprint overlaps with MRS 12, Tract 12D (Figure 3-4). Tract 12 D was a surface clearance area. No munitions and explosives of concern was recovered in the IASPOW footprint. ADEM concurred with the After Action Report submitted for MRSs 12 and 13 dated March 2014 on June 5, 2014.

The MDA completed the removal of bullets and bullet fragments from the IASPOW and documented this activity in a Corrective Measures Implementation Report (CMIR) dated September 2014. We note the CMIR incorrectly identified the site as the Former Rifle/Machine Gun Ranges (Firing Line Areas), Parcels 100Q and 101Q (see MDA correspondence to ADEM on Site Name Discrepancy dated August 31, 2017 and ADEM response dated May 30, 2018). A small quantity of scrap metal, expended brass small arms casings, and lead projectiles were recovered, however no unfired small arms ammunition was recovered. ADEM issued a concurrence with the CMIR for Parcels 100Q and 101Q in April 2015.

4.0 SITE RISK EVALUATION

Chemical analysis of samples collected at the IASPOW associated with the 2003 SI indicated that metals, explosives, volatile organic compounds (VOC), pesticides, and herbicides were detected in the various site media. To evaluate whether the detected constituents pose an unacceptable risk to human health or the environment, the analytical results were compared to site-specific screening levels (SSSLs), ecological screening values (ESVs), and background screening values for Fort McClellan in the SI using prior accepted methodologies in place at the time. Site metals data were further evaluated using statistical and geochemical methods to determine if the metals were site related. A preliminary risk assessment (PRA) and preliminary ecological risk assessment (PERA) were also performed to further characterize the potential threat to human health and the environment.

The PRA identified three metals (antimony, arsenic, and lead) as constituents of potential concern (COPC) in soil. The metals are known to be constituents of bullets, and expended bullets and bullet fragments were observed on the surface over a substantial portion of the Site. Groundwater COPCs were four organochlorine pesticides (aldrin, dieldrin, heptachlor epoxide, and beta-hexachlorocyclohexane), and one explosive compound (4-amino-2,6-dinitrotoluene). The PRA concluded that the IASPOW in its current state can be released for its intended industrial use, but not for residential (or unrestricted) use.

The PERA identified two metals (lead and copper) and one VOC (trichloroethene) as constituents of potential ecological concern in surface soil. Exposures to subsurface soil and groundwater were considered unlikely for ecological receptors at the Site. The PERA concluded that the metals have the potential to pose ecological risk. The trichloroethene is unlikely to pose ecological risk because of its isolated nature and relatively low detected concentration. The Site is not expected to provide viable ecological habitat in the projected industrial reuse scenario. Therefore, the potential future threat to ecological receptors is considered low.

A Screening Risk Assessment (SRA) was prepared to address ADEM's concerns on the PERA and to include human health screening. ADEM's key concern was the age of the soil database. The SRA at the Site was based on the results for surface and subsurface soil samples collected during 2022 supplemental soil sampling and was conducted in accordance with Alabama Risk-Based Corrective Action Guidance Manual (ARBCA) guidance. ARBCA has a specific human health risk assessment process and references EPA guidance for ecological risk assessment. The ecological risk screening follows the steps outlined in EPA Region 4 Ecological Risk Assessment Supplemental Guidance to Ecological Risk Assessment Guidance to Superfund (EPA, 2018).

Regarding the Human Health Screening, the only constituent with a maximum concentration that exceeded both EPA Regional Screening Levels (RSLs) and background threshold values (BTVs) was arsenic. One result (15 milligram per kilogram [mg/kg]) exceeded the BTV of 13.7 mg/kg at one location in subsurface soil. Arsenic is not a typical firing range contaminant, and the only exceedance was in a subsurface sample, suggesting that the observation is not related to past use.

risk assessments). However, antimony, copper, lead, and zinc did not exceed the Ecological Risk-Based Remedial Goals and are therefore screened out. The remaining chemicals with maximum concentrations over ESVs or lacking ESVs for ecological risk are:

- Aluminum
- Iron
- Manganese
- Mercury
- Selenium
- Thallium
- Vanadium

As noted in the SRA, most of the constituents of concern (COCs) were below BTVs and did not exhibit a pattern of contamination (surficial deposition) likely to be related to Site activities. Additionally, the Site will have an industrial reuse, and its primary function will not be as habitat. The key ecological concerns would be if there were excessive high concentrations or bioconcentrators that could move up into the food chain as a result of incidental wildlife contact. These conditions do not exist, and, in fact, the COC concentrations appear to be background. Therefore, no ecological risk is predicted.

Based on the results of the RFI, past operations at the IASPOW have impacted the environment. The Site is unsuitable for unrestricted reuse (i.e., residential). However, the Site does not pose an unacceptable risk to human health or the environment in the projected (industrial) land reuse scenario. Therefore, No Further Action with Land Use Controls (LUCs) is recommended as the selected remedy for the Site.

5.0 SELECTED REMEDY

The selected remedy for the Site is No Further Action with LUCs. The Alabama Uniform Environmental Covenants Act, §§ 35-19-1 through 35-19-14, Code of Alabama 1975, as amended, requires an Environmental Covenant be submitted to ADEM for review and approval when a CMIP allows a risk-based cleanup that will not achieve unrestricted use standards. The property that comprises the Site is within the area covered by existing Environmental Covenant FY-16-03.00. Environmental covenant FY-16-03.00 will be modified to incorporate prohibition of groundwater and residential use. Following ADEM approval the covenant will be filed in Probate. The draft revised Environmental Covenant FY16-03.01 is included in Appendix A.

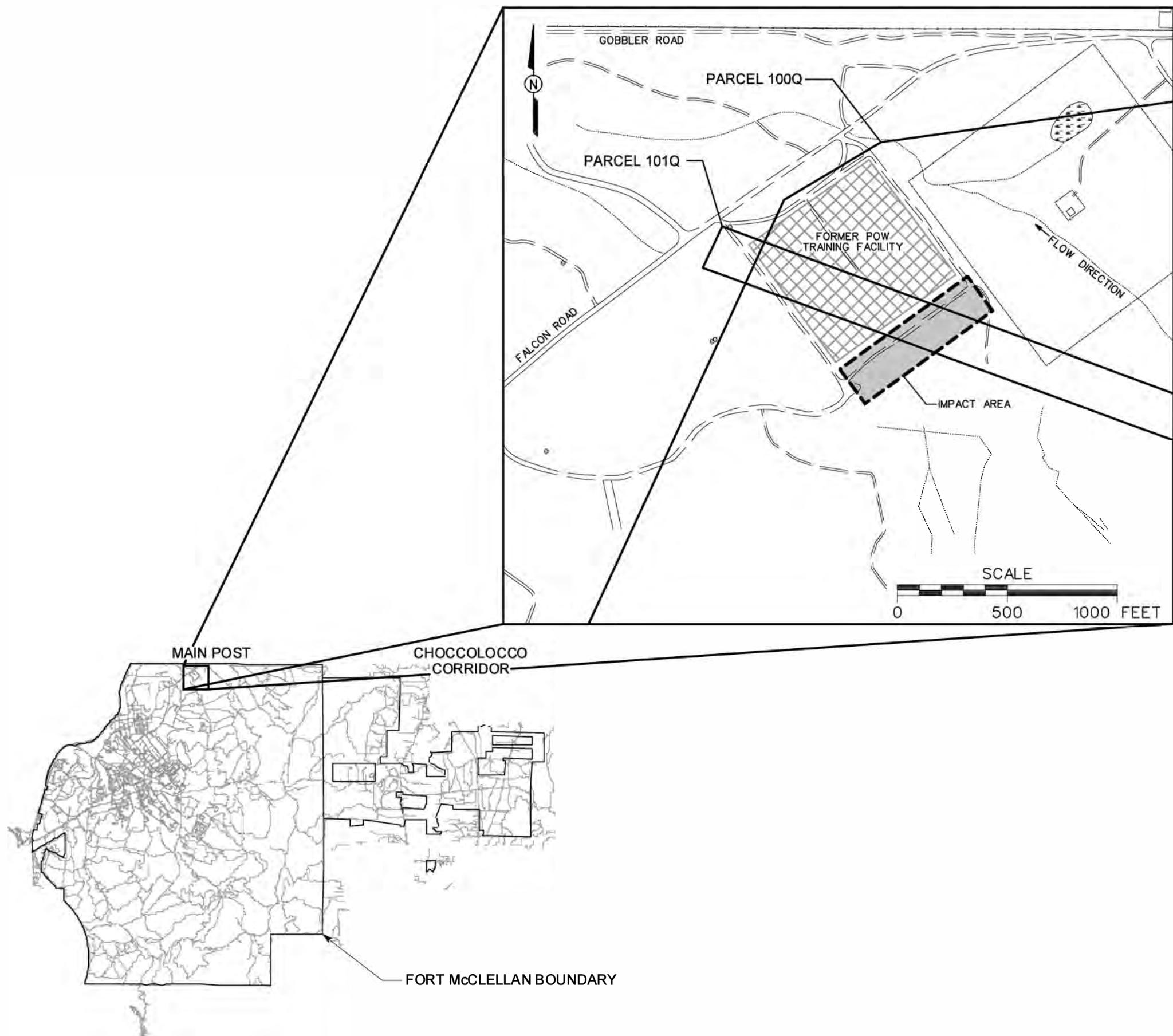
6.0 REFERENCES

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FIGURES

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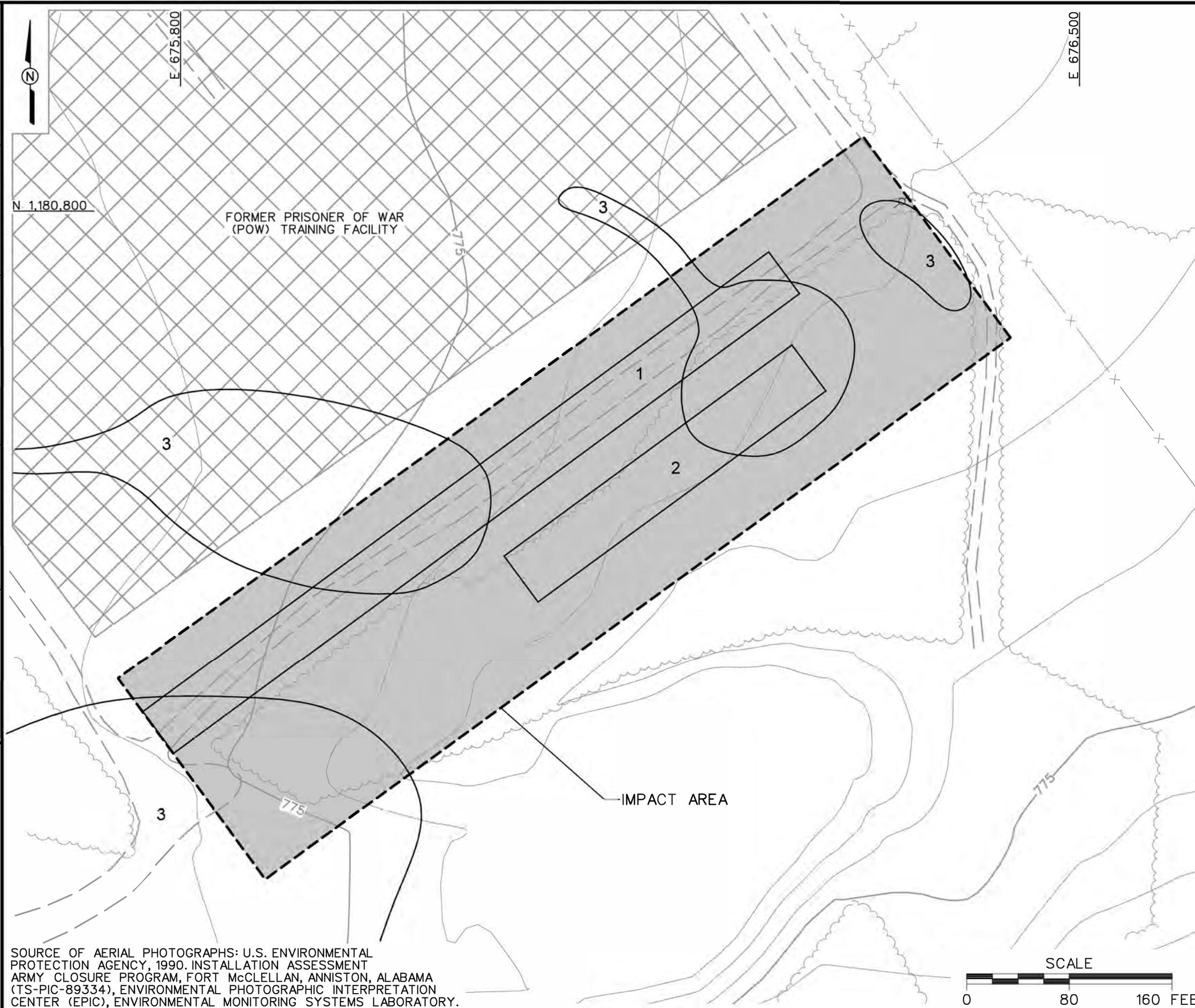
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- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- MARSH / WETLANDS
- AREA OF INVESTIGATION
- PARCEL BOUNDARY
- FORMER PRISONER OF WAR (POW) TRAINING FACILITY
- SURFACE DRAINAGE / CREEK
- FENCE
- TREES / TREELINE

FIGURE 2-1
SITE LOCATION MAP
IMPACT AREA SOUTH OF POW
TRAINING FACILITY
FORMER RIFLE/MACHINE GUN RANGE
PARCELS 100Q AND 101Q

U. S. ARMY CORPS OF ENGINEERS
 MOBILE DISTRICT
 FORT McCLELLAN
 CALHOUN COUNTY, ALABAMA
 Contract No. DACA21-96-D-0018

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 - AREA OF INVESTIGATION
 - FORMER PRISONER OF WAR (POW) TRAINING FACILITY
 - FENCE

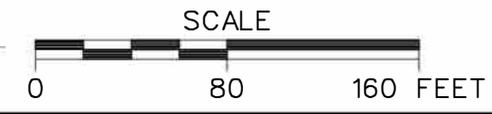
APPROXIMATE LOCATION OF OBSERVED FEATURES

- ① .30 CALIBER, 7.62mm AND 5.56mm EXPENDED ROUNDS (BULLETS AND BULLET FRAGMENTS)
- ② POSSIBLE TARGET BERM
- ③ DISTURBED AREAS IDENTIFIED ON AERIAL PHOTOGRAPHS

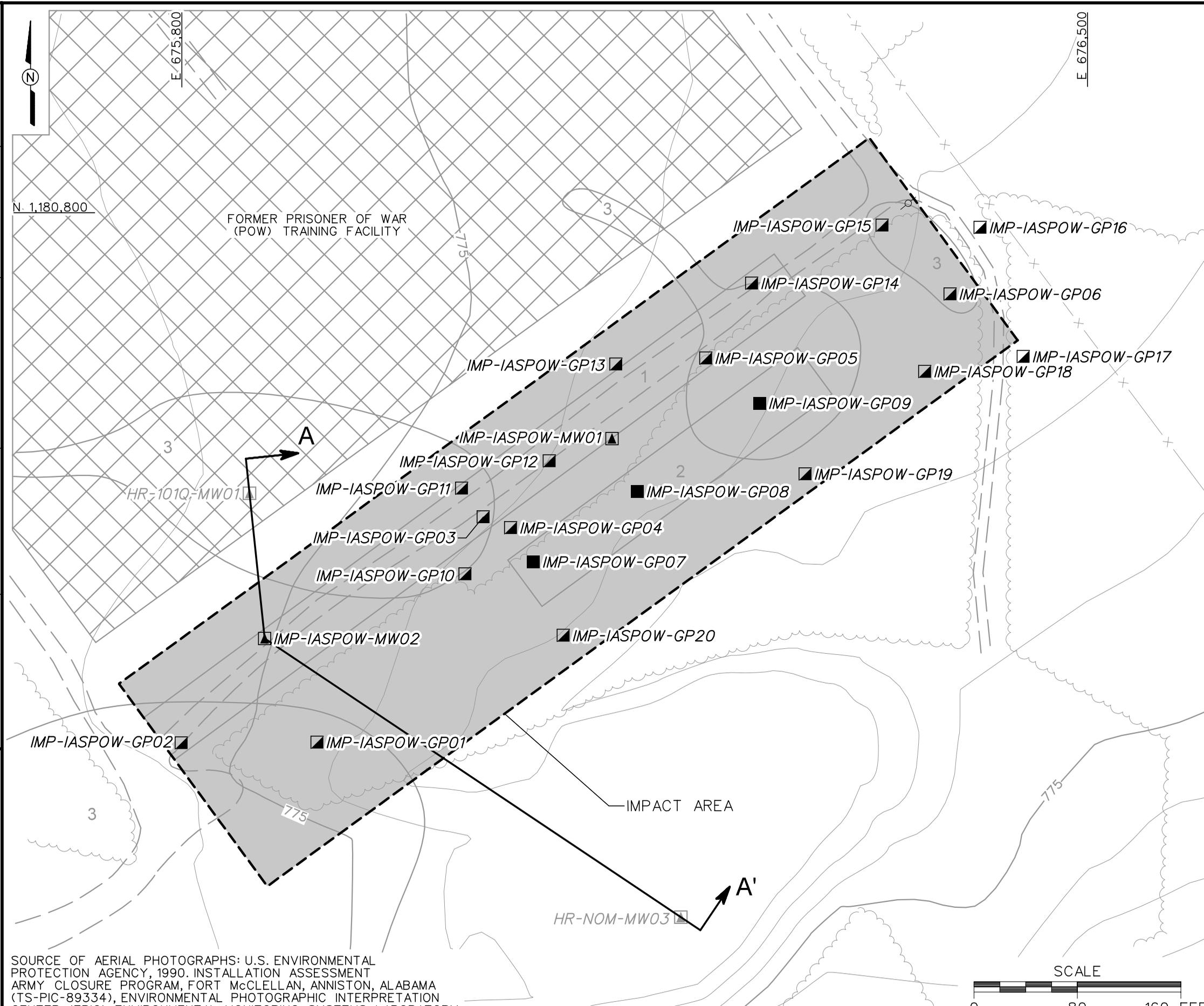
FIGURE 2-2
SITE MAP FEATURES
IMPACT AREA SOUTH OF POW TRAINING FACILITY
FORMER RIFLE/MACHINE GUN RANGE PARCELS 100Q AND 101Q

U. S. ARMY CORPS OF ENGINEERS
 MOBILE DISTRICT
 FORT McCLELLAN
 CALHOUN COUNTY, ALABAMA
 Contract No. DACA21-96-D-0018

SOURCE OF AERIAL PHOTOGRAPHS: U.S. ENVIRONMENTAL PROTECTION AGENCY, 1990. INSTALLATION ASSESSMENT ARMY CLOSURE PROGRAM, FORT McCLELLAN, ANNISTON, ALABAMA (TS-PIC-89334), ENVIRONMENTAL PHOTOGRAPHIC INTERPRETATION CENTER (EPIC), ENVIRONMENTAL MONITORING SYSTEMS LABORATORY.



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- UNIMPROVED ROADS AND PARKING
- TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- AREA OF INVESTIGATION
- FORMER PRISONER OF WAR (POW) TRAINING FACILITY
- FENCE
- SURFACE SOIL SAMPLE LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- EXISTING MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- CROSS SECTION LOCATION

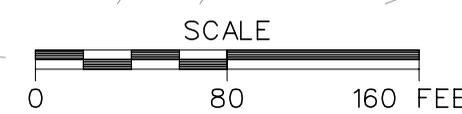
APPROXIMATE LOCATION OF OBSERVED FEATURES

- ① .30 CALIBER, 7.62mm AND 5.56mm EXPENDED ROUNDS (BULLETS AND BULLET FRAGMENTS)
- ② POSSIBLE TARGET BERM
- ③ DISTURBED AREAS IDENTIFIED ON AERIAL PHOTOGRAPHS

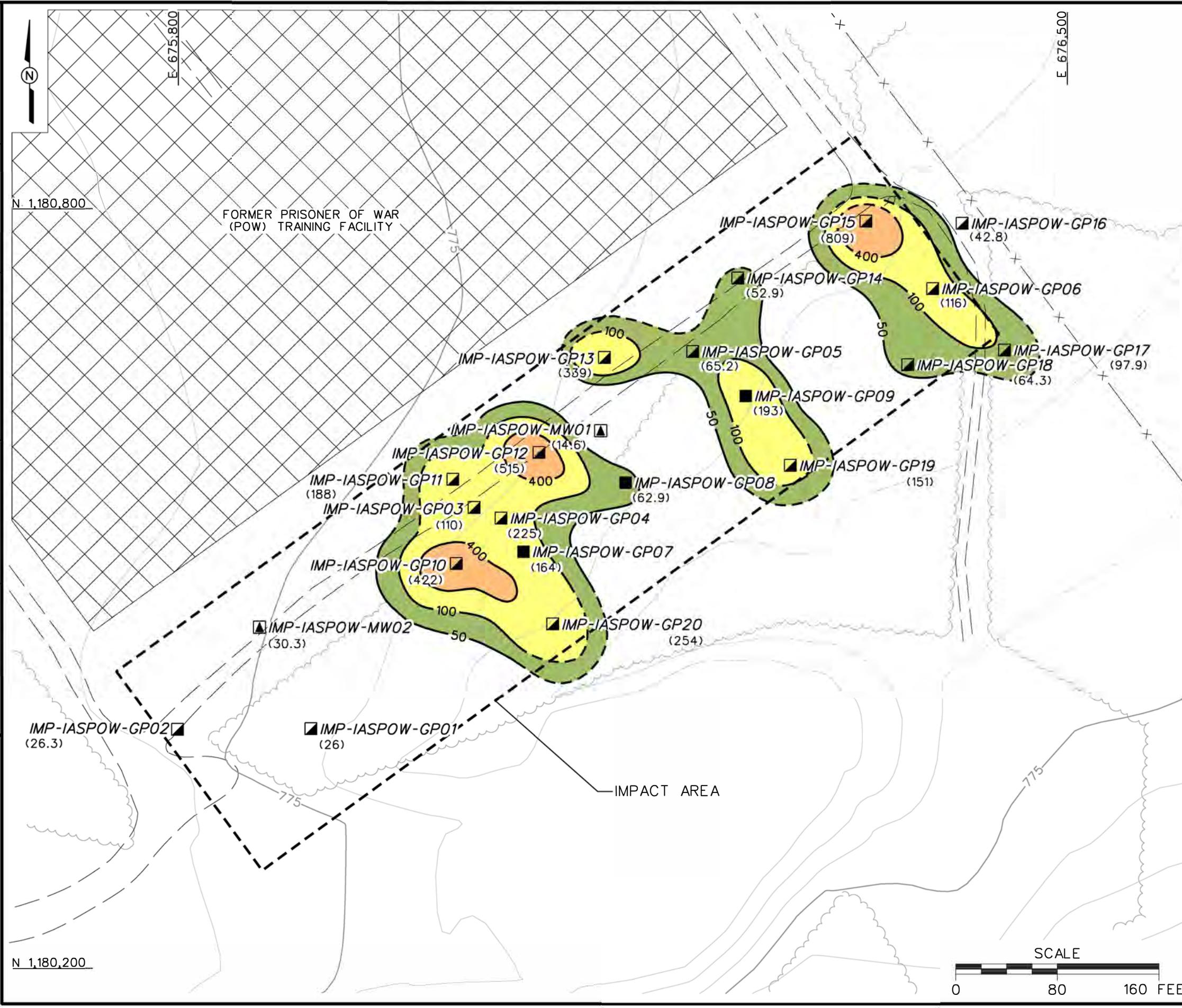
FIGURE 3-1
SAMPLE LOCATION MAP
IMPACT AREA SOUTH OF POW
TRAINING FACILITY
FORMER RIFLE/MACHINE GUN RANGE
PARCELS 100Q AND 101Q

U. S. ARMY CORPS OF ENGINEERS
 MOBILE DISTRICT
 FORT McCLELLAN
 CALHOUN COUNTY, ALABAMA
 Contract No. DACA21-96-D-0018

SOURCE OF AERIAL PHOTOGRAPHS: U.S. ENVIRONMENTAL PROTECTION AGENCY, 1990. INSTALLATION ASSESSMENT ARMY CLOSURE PROGRAM, FORT McCLELLAN, ANNISTON, ALABAMA (TS-PIC-89334), ENVIRONMENTAL PHOTOGRAPHIC INTERPRETATION CENTER (EPIC), ENVIRONMENTAL MONITORING SYSTEMS LABORATORY.



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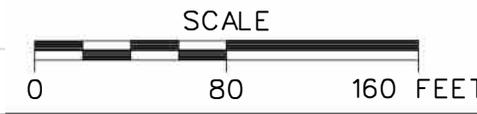
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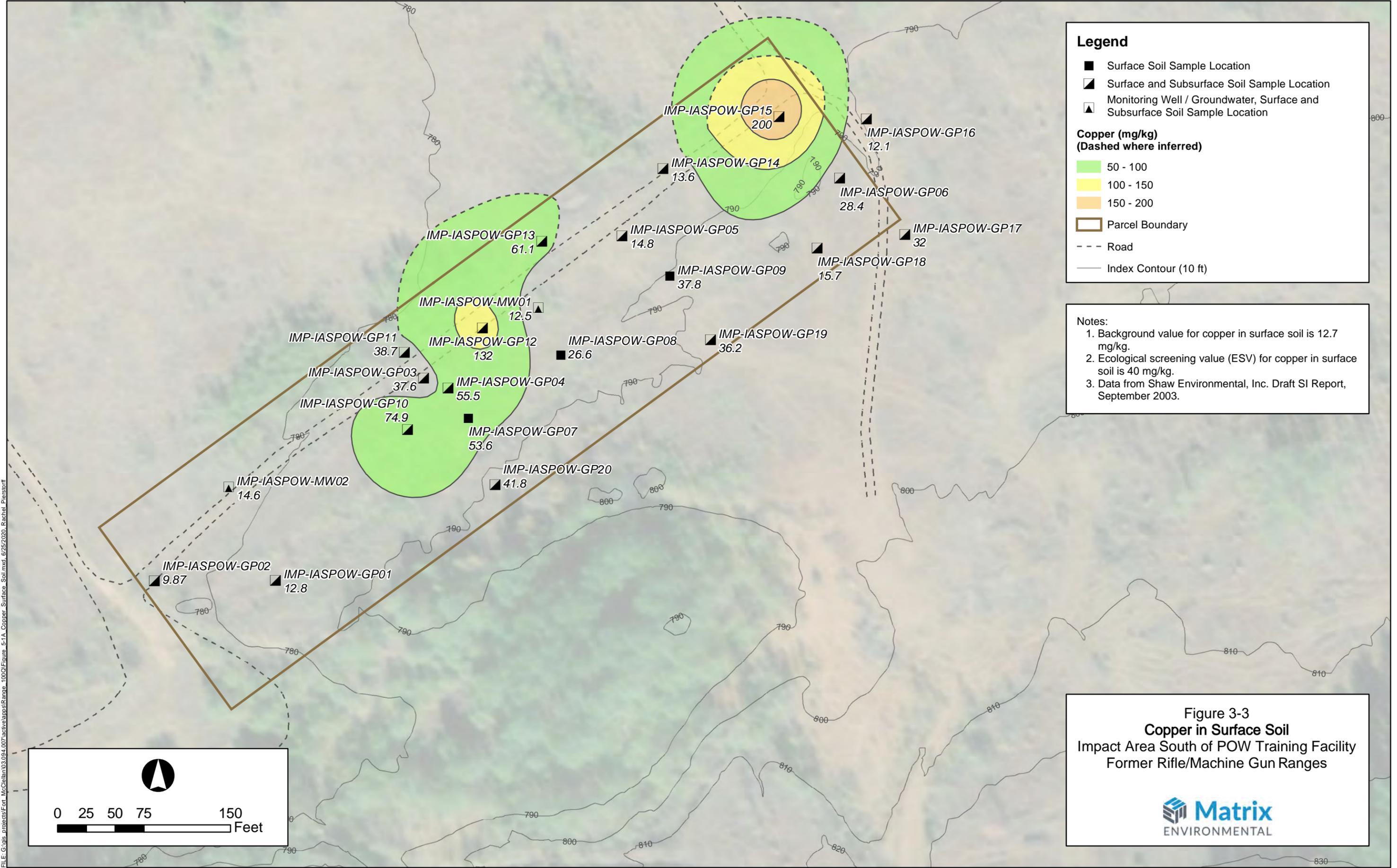
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- TREES / TREELINE
- AREA OF INVESTIGATION
- FORMER PRISONER OF WAR (POW) TRAINING FACILITY
- FENCE
- SURFACE SOIL SAMPLE LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- LEAD CONCENTRATION (mg/kg) (DASHED WHERE INFERRED)
- CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)

- NOTES:**
1. BACKGROUND VALUE FOR LEAD IN SURFACE SOIL IS 40 mg/kg.
 2. ECOLOGICAL SCREENING VALUE (ESV) FOR LEAD IN SURFACE SOIL IS 50 mg/kg.
 3. SITE-SPECIFIC SCREENING LEVEL (SSL) FOR LEAD IN SURFACE SOIL IS 400 mg/kg.

FIGURE 3-2
 LEAD IN SURFACE SOIL
 IMPACT AREA SOUTH OF POW
 TRAINING FACILITY
 FORMER RIFLE/MACHINE GUN RANGE
 PARCELS 100Q AND 101Q

U. S. ARMY CORPS OF ENGINEERS
 MOBILE DISTRICT
 FORT McCLELLAN
 CALHOUN COUNTY, ALABAMA
 Contract No. DACA21-96-D-0018





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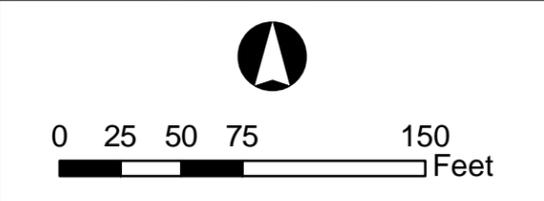
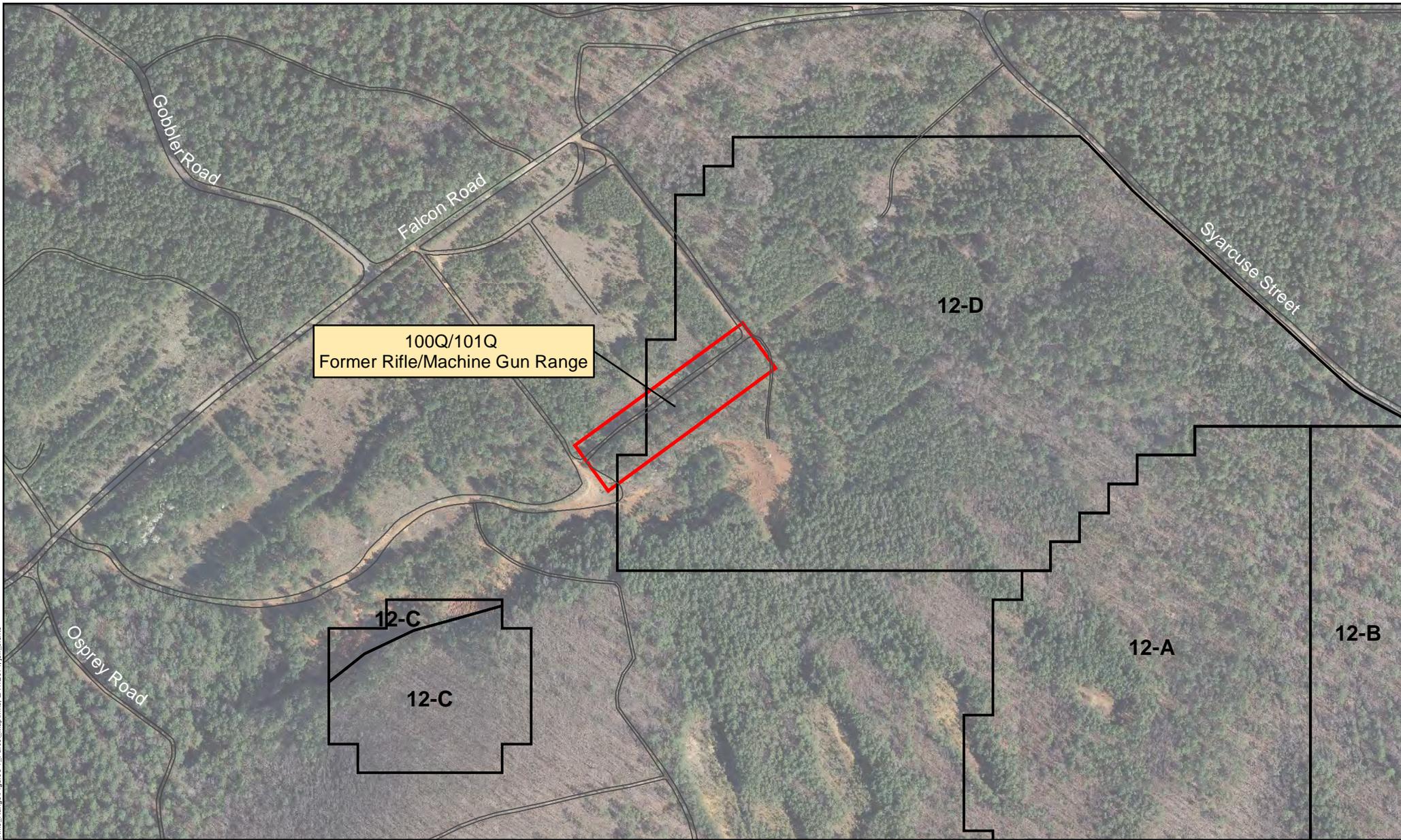


Figure 3-3
Copper in Surface Soil
Impact Area South of POW Training Facility
Former Rifle/Machine Gun Ranges



100Q/101Q
Former Rifle/Machine Gun Range

12-D

12-A

12-B

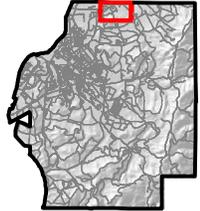
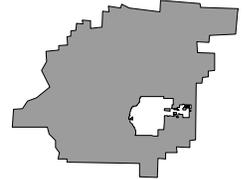
12-C

12-C

Alabama



Calhoun County



- Legend**
- Parcel Boundary
 - MRS-12 Tract Boundary
 - Roads

0 250 500 Feet



Figure 3-4
Parcel Map with MRS-12
Impact Area South of POW Training Facility,
Former Rifle/Machine Gun Ranges



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APPENDIX A

DRAFT ENVIRONMENTAL COVENANT FY16-03.01

STATE OF ALABAMA)
CALHOUN COUNTY)

THE MCCLELLAN DEVELOPMENT AUTHORITY
ENVIRONMENTAL COVENANT
NUMBER FY-16-03.01

KNOW ALL MEN BY THESE PRESENTS: That pursuant to the Alabama Uniform Environmental Covenants Act, §§ 35-19-1 through 35-19-14, Code of Alabama 1975, as amended, (the "Act") and the ADEM Administrative Code of Regulations promulgated thereunder,

BE ADVISED that the following Covenant hereby completely **REPEALS** and **REPLACES** the McClellan Development Authority Environmental Covenant Number FY 16-03.00, recorded on March 22, 2016 at Deed Book 3200, Page 665, in the Office of the Judge of Probate, Calhoun County, Alabama.

THE MCCLELLAN DEVELOPMENT AUTHORITY

(hereinafter "MDA" or "Grantor") grants this Environmental Covenant, Numbered FY-16-03.01, which constitutes a servitude arising under an environmental response project that imposes activity and/or use limitations, to the following statutory Holder:

THE MCCLELLAN DEVELOPMENT AUTHORITY

("MDA"), (hereinafter "Grantee" or "Holder"), to-wit:

WHEREAS, the MDA is the owner of a portion of that certain real property known as "Munitions Response Site – 12 (MRS-12)" which includes portions of Range 30: End-of-Cycle Test Range (Parcel 88Q) and Former Rifle/Machine Gun Range (103Q) collectively known as Range 30 Impact Area and Impact Area South of Prisoner-of-War Training Facility, Former Rifle/Machine Gun Ranges, Parcels 100Q and 101Q (see Exhibit "A", attached hereto) which is located on the grounds of the former Fort McClellan, in the City of Anniston, Calhoun County, Alabama (the "Property"), which was conveyed to MDA by deed dated April 1, 2010, and recorded in the Office of the Judge of Probate for said County, Alabama, in Deed Book 3125 at Page 275; and,

WHEREAS, the Covenant Boundary is more particularly described as follows:

MRS-12 DIGGING AND GROUNDWATER USE PROHIBITION AREA

A parcel of land divided into three area (MRS-12, Area 1, MRS-12, Area 2 & MRS-12, Area 3) situated in the Southeast ¼ of Section 2, the North ½ of Section 11, and the Northwest ¼ of Section 12, all lying in Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama, and being more particularly described as follows:

MRS-12, AREA 1 DESCRIPTION

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 Feet, thence South 00 degrees 24 minutes 37 seconds West, 775.04 Feet to the POINT OF BEGINNING of MRS-12, Area 1, being the Northeast corner of the tract described herein, and having Alabama State Plane, East Zone, Coordinates of North: 1,179,900, and East: 675,500; runs thence as follows:

South 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 100.00 Feet;
South 00 degrees 00 minutes 00 seconds East, 400.00 Feet;
North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
South 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds West, 500.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 300.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 200.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 300.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 100.00 Feet to the Point of Beginning, and containing 7.35 Acres, more or less.

MRS-12, AREA 2 DESCRIPTION

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East 9,771.09 Feet; thence North 00 degrees 24 minutes 37 seconds East, 739.99 Feet to the west line of U.S. Fish and Wildlife Service (USFWS), approximately 15 feet west of the center of an unnamed access road, POINT OF BEGINNING of MRS-12, Area 2, and having Alabama State Plane, East Zone, Coordinates of North: 1,181,400, and East: 677,603; runs thence with USFWS, approximately 15 feet west of the center of the unnamed road as follows:

South 43 degrees 39 minutes 27 seconds East, 115.63 Feet;
South 47 degrees 05 minutes 54 seconds East, 110.38 Feet to a USFWS monument found;
South 48 degrees 56 minutes 41 seconds East, 146.19 Feet;
South 47 degrees 15 minutes 57 seconds East, 241.86 Feet;
South 48 degrees 42 minutes 27 seconds East, 132.21 Feet;
South 47 degrees 50 minutes 34 seconds East, 394.17 Feet;
South 58 degrees 00 minutes 32 seconds East, 55.86 Feet to a USFWS monument found;
South 61 degrees 34 minutes 18 seconds East, 172.94 Feet;
Along a curve to the right 74.04 Feet, having a radius of 215.29 feet, and being subtended by a chord bearing and distance of South 48 degrees 47 minutes 12 seconds East, 73.67 Feet;
South 36 degrees 46 minutes 33 seconds East, 135.19 Feet;
Along a curve to the left, 111.81 Feet, having a radius of 1202.91 feet, and being subtended by a chord bearing and distance of South 39 degrees 51 minutes 48 seconds East, 111.77 Feet;

South 45 degrees 55 minutes 50 seconds East, 165.30 Feet;
 Along a curve to the right 167.28 Feet, having a radius of 804.28 Feet, and being subtended
 by a chord bearing and distance of South 49 degrees 47 minutes 39 seconds East, 166.98 Feet,;
 Along a curve to the right 4.53 Feet, having a radius of 755.50 Feet, and being subtended
 by a chord bearing and distance of South 42degrees 27 minutes 52 seconds East, 4.53 Feet;
 South 00 degrees 00 minutes 00 seconds East, 148.60 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 South 00 degrees 00 minutes 00 seconds East, 300.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 South 00 degrees 00 minutes 00 seconds East, 300.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 South 00 degrees 00 minutes 00 seconds East, 300.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 South 00 degrees 00 minutes 00 seconds East, 139.60 Feet;
 Along a curve to the left 165.99 Feet, having a radius of 546.64 Feet, and being subtended
 by a chord bearing and distance of South 76 degrees 40 minutes 33 seconds West, 165.35 Feet;
 Along a curve to the left 235.14 Feet, having a radius of 1076.64 Feet, and being subtended
 by a chord bearing and distance of South 63 degrees 22 minutes 26 seconds West, 234.68 Feet to
 a USFWS monument found;
 South 55 degrees 02 minutes 30 seconds West, 105.98 Feet;
 Along a curve to the left 94.84 Feet, having a radius of 608.76 Feet, and being subtended
 by a chord bearing and distance of South 53 degrees 28 minutes 09 seconds West, 94.75 Feet in
 the south line of MRS 12; thence leaving USFWS with the MRS 12 Grid as follows:
 North 90 degrees 00 minutes 00 seconds West, 666.32 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 200.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 400.00 Feet;
 North 90 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 400.00 Feet;
 North 90 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 400.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds East, 200.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds East, 200.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 90 degrees 00 minutes 00 seconds East, 100.00 Feet;
 North 00 degrees 00 minutes 00 seconds East, 500.00 Feet;
 North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;

North 00 degrees 00 minutes 00 seconds East, 200.00 Feet;
North 90 degrees 00 minutes 00 seconds West, 100.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 200.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 200.00 Feet;
North 00 degrees 00 minutes 00 seconds East, 100.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 103.08 Feet to the Point of Beginning, and containing 85.26 Acres, more or less.

MRS-12, AREA 3 DESCRIPTION

COMMENCING at the North-easternmost corner of MRS-12, Area 2, located approximately 15 feet west of the center of an unnamed road in the west line of U.S. Fish and Wildlife Service (USFWS); runs thence South 40 degrees 47 minutes 39 seconds East 328.38 Feet to the west line of USFWS, approximately 15 feet west of the center of the road, to the POINT OF BEGINNING of MRS-12, Area 3, having Alabama State Plane, East Zone, Coordinates of North: 1,179,800, and East: 679,315; runs thence with USFWS, approximately 15 feet west of the center of the unnamed road as follows:

South 44 degrees 01 minutes 42 seconds East, 25.52 Feet;
South 41 degrees 25 minutes 53 seconds East, 78.10 Feet;
South 42 degrees 37 minutes 58 seconds East, 67.53 Feet;
South 47 degrees 23 minutes 37 seconds East, 68.84 Feet;
South 45 degrees 20 minutes 06 seconds East, 218.33 Feet to a point 15 Feet north of the centerline of an unnamed road; thence with the north margin of the unnamed road, continuing with USFWS as follows:

South 58 degrees 58 minutes 26 seconds West, 55.49 Feet;
Along a curve to the left 81.22 Feet, having a radius of 1641.21 Feet, and being subtended by a chord bearing and distance of South 56 degrees 02 minutes 51 seconds West, 81.21 Feet; thence leaving USFWS as follows:
North 90 degrees 00 minutes 00 seconds West, 320.29 Feet;
North 00 degrees 00 minutes 00 seconds East, 400.00 Feet;
North 90 degrees 00 minutes 00 seconds East, 114.54 Feet to the Point of Beginning, and containing 2.67 Acres, more or less.

RESIDENTIAL AND GROUNDWATER USE PROHIBITION AREAS

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 feet; thence South 00 degrees 24 minutes 37 seconds West, 775.04 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet;
thence South 00 degrees 00 minutes 39 seconds East, 49.17 feet to the POINT OF BEGINNING of Stipple Area 1; thence South 00 degrees 00 minutes 37 seconds West, 50.83 feet; thence North 89 degrees 59 minutes 51 seconds East, 50.00 feet; thence South 00 degrees 08 minutes 59 seconds West, 50.93 feet; thence South 00 degrees 03 minutes 10 seconds East, 149.06 feet; thence North 90 degrees 00 minutes 00 seconds West, 50.00 feet; thence North 00 degrees 00

minutes 00 seconds West, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 200.00 feet; thence North 00 degrees 00 minutes 19 seconds West, 100.00 feet; thence North 89 degrees 59 minutes 41 seconds West, 49.99 feet; thence North 00 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 89 degrees 59 minutes 41 seconds East, 49.99 feet; thence North 89 degrees 59 minutes 51 seconds East, 100.01 feet; thence North 00 degrees 00 minutes 00 seconds West, 51.08 feet; thence South 89 degrees 55 minutes 39 seconds East, 200.00 feet to the Point of Beginning, and containing 1.84 acres, more or less.

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 feet; thence South 00 degrees 24 minutes 37 seconds West, 775.04 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence North 90 degrees 00 minutes 00 seconds East, 100.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 400.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 199.99 feet to the POINT OF BEGINNING of Stipple Area 2; thence North 90 degrees 00 minutes 00 seconds West, 300.01 feet; thence North 89 degrees 50 minutes 04 seconds West, 100.32 feet thence North 00 degrees 11 minutes 05 seconds East, 99.71 feet; thence North 00 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 89 degrees 37 minutes 41 seconds West, 55.67 feet; thence North 00 degrees 11 minutes 02 seconds West, 49.33 feet; thence South 89 degrees 35 minutes 42 seconds East, 155.84 feet; thence North 00 degrees 00 minutes 00 seconds West, 52.14 feet; thence North 90 degrees 00 minutes 00 seconds East, 50.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 50.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds East, 50.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds East, 250.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet to the Point of Beginning, and containing 1.49 acres, more or less.

A parcel of land located in the NW $\frac{1}{4}$ of Section 10 and the SW $\frac{1}{4}$ of Section 3 lying in Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama, and being more particularly described as follows:

COMMENCING at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds West, 7927.63 feet; thence South 00 degrees 24 minutes 38 seconds West, 239.88 feet to the POINT OF BEGINNING, being the Northwest corner of the MRS-12, No Dig and Groundwater Use Prohibition Area 4, and having Alabama State Plane, East Zone, Coordinates of North: 1,180,433.32 and East: 675,752.65; runs thence as follows:

North 53 degrees 51 minutes 08 seconds East, 718.09 feet;
South 36 degrees 10 minutes 26 seconds East, 163.47 feet;
South 36 degrees 08 minutes 52 seconds East, 31.03 feet;
South 53 degrees 50 minutes 53 seconds West, 388.30 feet;
South 53 degrees 51 minutes 08 seconds West 329.81 feet;
North 36 degrees 10 minutes 31 seconds West 113.40 feet;

North 36 degrees 08 minutes 52 seconds West 81.14 feet to the Point of Beginning and containing 3.21 acres, more or less.

***RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND GROUNDWATER USE
PROHIBITION AREAS***

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 feet; thence South 00 degrees 24 minutes 37 seconds West, 775.04 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet to the POINT OF BEGINNING of Hatch Area 1; thence South 00 degrees 00 minutes 37 seconds East, 50.73 feet;

South 89 degrees 46 minutes 06 seconds West, 50.14 feet;

North 00 degrees 08 minutes 59 seconds East, 50.93 feet;

South 89 degrees 59 minutes 51 seconds East, 50.00 feet to the Point of Beginning, and containing 0.06 acres, more or less.

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 feet; thence South 00 degrees 24 minutes 37 seconds West, 775.04 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence South 00 degrees 00 minutes 13 seconds East, 150.00 feet to the POINT OF BEGINNING of Hatch Area 2; thence South 00 degrees 00 minutes 00 seconds East, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet; thence North 00 degrees 00 minutes 00 seconds West, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds East, 100.00 feet to the Point of Beginning, and containing 0.11 acres, more or less.

COMMENCING at a brass disk found at the Northwest corner of Section 10, Township 15 South, Range 8 East, Huntsville Meridian, Calhoun County, Alabama; runs thence South 89 degrees 35 minutes 22 seconds East, 7,678.81 feet; thence South 00 degrees 24 minutes 37 seconds West, 775.04 feet; thence North 90 degrees 00 minutes 00 seconds West, 100.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 300.00 feet; thence South 00 degrees 00 minutes 00 seconds East, 100.00 feet; thence North 89 degrees 59 minutes 41 seconds West, 49.99 feet; thence South 00 degrees 00 minutes 00 seconds East, 200.00 feet to the POINT OF BEGINNING of Hatch Area 3; thence South 00 degrees 00 minutes 00 seconds East, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds West, 50.00 feet; thence North 00 degrees 00 minutes 00 seconds West, 50.00 feet; thence North 90 degrees 00 minutes 00 seconds East, 50.00 feet to the Point of Beginning, and containing 0.06 acres, more or less.

WHEREAS, this instrument is an Environmental Covenant developed and executed pursuant to The Alabama Uniform Environmental Covenants Act and the regulations promulgated thereunder;

WHEREAS, Parcel MRS-12 comprises an area totaling approximately 140.5 acres located in the northern part of the Alpha Munitions Response Area (MRA), north of the Alabama National Guard's Military Operations in Urban Terrain (MOUT) training site, and bordered by the Charlie MRA to the east. It consists of two parcels – a large parcel to the east and a small parcel to the west which include the Alpha Engineering Evaluation/Cost Analysis (EE/CA) Sectors M6-1M Suspect Area (N)–Passive Recreation (PR), M6-1M Transect Area 2 (North)–PR, M6-1M Burn Pit–PR, and portions of M6-1M Remainder – Industrial/Active Recreation (I/AR) and M6-1M Remainder –PR and Supplemental EE/CA Sectors NT-1N and NT-2;

WHEREAS, historically, MRS-12 was used primarily as rifle, machine gun, carbine, and mortar ranges with a variety of explosive ordnance recovered during site characterization activities. To implement the munitions remediation in MRS-12, the site was divided into four tracts, 12-A through 12-D based on geography and required remedial actions. The remediation for Tract 12-D where the presence of MEC was considered to be low and likely to consist of discarded military munitions (DMM), if present, was a surface sweep. The remainder of MRS-12 was cleared to a depth of one foot with the exception of a small area, approximately 1.5 acres in the northwest corner of Tract 12-C, which was cleared to the depth of detection;

WHEREAS, portions of Parcels 88Q and 103Q are located within the boundary of MRS-12 and collectively known as part of the Range 30 Impact Area. Range 30: End-of-Cycle Test Range, (88Q) was used for the last phase of basic training and arms fired at this range included M-16 blanks, flares and simulators, M-60 machine guns, and .30 caliber ordnance. At the Former Rifle/Machine Gun Range (103Q), M-60 machine guns and sub-caliber devices for use in tank main guns, including 37 millimeter (mm) ammunition were used. Weapons training at the Range 30 Impact Area resulted in the residual presence of unacceptable concentrations of lead which required the excavation and disposal of soils and implementation of land use controls;

WHEREAS, Parcels 100Q and 101Q are former rifle/machine gun ranges whose dates of operation and types of specific ordnance fired at these ranges are unknown. Based on the presence of .30 caliber, 5.56 mm, and 7.62 mm expended bullets and bullet fragments, and a possible target berm observed during a site walk, and disturbed areas identified on historical aerial photographs, it is assumed that mostly small arms weapons were used at these ranges. Results from Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI) that included a risk assessment concluded that although site activities have impacted the environment the site is unsuitable for unrestricted reuse (i.e., residential). However, the site does not pose an unacceptable risk to human health or the environment for industrial reuse and therefore a no further action with land use controls was the selected remedy for the site.

WHEREAS, the selected “remedial action” for the Property, which has now been implemented, providing in part, for the following actions,

DESCRIPTION OF REMEDIAL ACTION:

WHEREAS, pursuant to the Alabama Hazardous Wastes Management and Minimization Act of 1978, (AHWMMA), Ala. Code §§ 22-30-1 to 22-30-24, as amended, the GRANTOR and assignees agreed to perform operation and maintenance activities at the Property, pursuant to an

ADEM Cleanup Agreement Number AL4-210-020-562 to address the effects of the release/disposal, which includes controlling exposure to the hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants;

WHEREAS, the remedial action was performed in accordance with the ADEM-approved work plans and Action Memorandum and DDESB-approved explosives safety submission;

WHEREAS, detection and removal methods are not 100 percent effective, so that (munitions and explosives of concern) MEC may remain in those areas that were subjected to the remediation;

WHEREAS, the Defense Explosives Safety Regulation 6055.09, Edition 1, January 13, 2019 in V7.E3.4.2.2.1.2 states that “Areas on which a previous response has been completed, pursuant to a DDESB-approved explosives safety submission (ESS), for the stipulated reuse also qualify for “low” determination.”; and, in V7.E4.4.3.2.1 the level of construction support for areas of low probability shall be “On-call”;

WHEREAS, the said Cleanup Agreement requires institutional controls to be implemented to address the effects of the release/disposal and to protect the remedy so that exposure to the potential MEC is controlled by restricting the use of the Property and the activities on the Property;

WHEREAS, implementation of the approved Cleanup Agreement has achieved risk-based cleanup levels deemed protective of public health and the environment based upon certain use restrictions imposed on the property to limit exposure to potential MEC or hazardous metals and other contaminants;

WHEREAS, the potential for MEC remains in the Covenant Boundary;

WHEREAS, the purpose of this Covenant is to ensure protection of human health and the environment by placing restrictions on the Property in accordance with the approved Cleanup Agreement; and

WHEREAS, further information concerning the remediation activities, including the Administrative Record, may be obtained by contacting:

Chief, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110
(334) 271-7700

NOW, THEREFORE, Grantor hereby grants this Environmental Covenant to the named Holder, and declares that the Property shall hereinafter be bound by, held, sold, used, improved, occupied, leased, hypothecated, encumbered, and/or conveyed subject to the requirements set forth below:

1. **DEFINITIONS**

Owners. "Owners" means the GRANTOR, its successors and assigns in interest.

2. **USE RESTRICTIONS**

Activities that violate the following restrictions shall not take place on the Property without obtaining prior written approval from ADEM:

- (i) Prohibition on intrusive activities without EOD (explosive ordnance personnel) or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed "on-call" to assist if suspected UXO are encountered during construction activities within the **MRS-12** areas identified on the covenant boundary map.
- (ii) The use of groundwater beneath the property for any purpose other than groundwater monitoring is prohibited.
- (iii) Residential use of the property is prohibited within the areas identified on the covenant boundary map. Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.
- (iv) Residential, commercial and industrial use are prohibited within the areas identified on the covenant boundary map.
- (v) Grantor reserves an access easement to the Property in any case in which a response action or corrective action is found to be necessary after the date of the establishment of this covenant upon such Property, or in any case such access is necessary to carry out a response action or corrective action on adjoining property.

3. **GENERAL PROVISIONS**

- A. **Restrictions to Run with the Land.** This Environmental Covenant runs with the land pursuant to §35-19-5, Code of Alabama 1975, as amended; is perpetual unless modified or terminated pursuant to the terms of this Covenant or §35-19-9 Code of Alabama 1975, as amended; is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof; inures to the benefit of and passes with each and every portion of the Property; and binds the Owner, the Holder, all persons using the land, all persons, their heirs, successors and assigns having any right, title or interest in the Property, or any part thereof who have subordinated those interests to this Environmental Covenant, and all persons, their heirs, successors and assigns who obtain any right, title or interest in the Property, or any part thereof after the recordation of this Environmental Covenant.
- B. **Notices Required.** In accordance with §35-19-4(b), Code of Alabama 1975, as amended, the Owner shall send written notification pursuant to Section I, below, upon any of the following events affecting the property subject to this covenant: Transfer of any interest, any proposed changes in the use of the property, any applications for building permits, or any proposals for site work that could affect the subsurface areas or contamination on the Property. The Owner shall send this notification within fifteen (15) days of each event listed in this Section.
- C. **Registry/Recordation of Environmental Covenant; Amendment; or Termination.**

Pursuant to §35-19-12(b), Code of Alabama 1975, as amended, this Environmental Covenant and any amendment or termination thereof, shall be contained in the ADEM Registry of Environmental Covenants. After an environmental covenant, amendment, or termination is filed in the registry, a notice of the covenant, amendment, or termination may be recorded in the land records in lieu of recording the entire covenant in compliance with §35-19-12(b). Grantor shall be responsible for filing the Environmental Covenant within thirty (30) days of the final required signature.

- D. Compliance Certification. In accordance with Ala. Code §35-19-4(b), as amended, the Owner shall submit a report on the effectiveness of the land use controls to the Chief of the ADEM Land Division, on an annual basis. The Land Use Control Effectiveness Report (LUCER) shall be submitted in accordance with §IV.B.9. of the Cleanup Agreement each March and shall detail the Owner's compliance, and any lack of compliance with the terms of the Covenant during the preceding calendar year.
- E. Right of Access. Subject to the requirements of the above-referenced Cleanup Agreement, the Owner hereby grants to ADEM, ADEM's agents, contractors and employees; the Owner's agents, contractors and employees; and any other named Holder, its agents, contractors and employees, the right of access to the Property for implementation or enforcement of this Environmental Covenant.
- F. ADEM Reservations. Notwithstanding any other provision of this Environmental Covenant, ADEM retains all of its access authorities and rights, as well as all of its rights to require additional land/water use restrictions, including enforcement authorities related thereto.
- G. Representations and Warranties. Grantor hereby represents and warrants as follows:
- i) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided, and to carry out all obligations hereunder;
 - ii) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
 - iii) That the Grantor has identified all other parties that hold any interest or encumbrance affecting the Property and has notified such parties of the Grantor's intention to enter into this Environmental Covenant.
 - iv) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under, any other agreement, document, or instrument to which any Grantor is a party, by which such Grantor may be bound or affected;
 - v) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property;
 - vi) That this Environmental Covenant does not authorize a use of the Property which is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.
- H. Compliance Enforcement. In accordance with §35-19-11(b), Code of Alabama 1975, as amended, the terms of the Environmental Covenant may be enforced by the parties to this Environmental Covenant; any person to whom this Covenant expressly grants power to enforce; any person whose interest in the real property or whose collateral or liability may

be affected by the alleged violation of the Covenant; or a municipality or other unit of local government in which the real property subject to the Covenant is located, in accordance with applicable law. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall limit the regulatory authority of ADEM under any applicable law with respect to the environmental response project.

I. Modifications/Termination. Any modifications or terminations to this Environmental Covenant must be made in accordance with §§ 35-19-9 and 35-19-10, Code of Alabama 1975, as amended.

J. Notices. Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

ADEM
Chief, Land Division
A.D.E.M.
1400 Coliseum Boulevard
Montgomery, AL 36110

GRANTOR
The McClellan Development
Authority
4975 Bains Gap Road
Anniston, AL 36205

K. No Property Interest Created in ADEM. Pursuant to §35-19-3(b), Code of Alabama 1975, as amended, the rights of ADEM under the Act or under this Environmental Covenant, other than a right as a holder, is not an interest in the real property subject to the covenant, nor does the approval by ADEM of this Environmental Covenant create any interest in the real property.

L. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

M. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Alabama.

N. Recordation. In accordance with §35-19-8(a), Code of Alabama 1975, as amended, Grantor shall have this Environmental Covenant, and any amendment or termination thereof, recorded in every county in which any portion of the real property subject to this Environmental Covenant is located. Grantor shall have this Environmental Covenant recorded within fifteen (15) days after the date of the final required signature.

O. Effective Date. The effective date of this Environmental Covenant shall be the date the fully executed Environmental Covenant is recorded in accordance with paragraph "N" above.

P. Distribution of Environmental Covenant. In accordance with §35-19-7, Code of Alabama 1975, the Grantor shall, within fifteen (15) days of filing this Environmental Covenant, have a recorded and date stamped copy of same distributed to each of the following: (1) Each person who signed the covenant; (2) Each person holding a recorded interest in the property; (3) Each person in possession of the property; (4) Each municipality or other unit

of local government in which the property is located; and (5) Any other person required by ADEM to receive a copy of the covenant. However, the validity of this Environmental Covenant will not be affected by the failure to provide a copy of the Covenant as herein provided.

- Q. Party References. All references to ADEM, the Grantor, or other applicable parties, shall include successor agencies, departments, divisions, heirs, executors and/or administrators.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this the _____ day of _____, 20____.

MDA Grantor
By: Jim McClellan
Its: Chairman

STATE OF ALABAMA)
CALHOUN COUNTY)

I, the undersigned Notary Public in and for said County and State, hereby certify that _____ whose name as _____ of the Grantor is signed to the foregoing conveyance, and who is known to me, acknowledged before me on this day that, being informed of the contents of the conveyance, he executed the same voluntarily on the day the same bears date and with full authority to do so.

Given under my hand and official seal this ____ day of _____, 20____.

Notary Public
My Commission Expires: _____

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

This Environmental Covenant is hereby approved by the State of Alabama, Department of Environmental Management.

Dated _____, 20__

By: _____

Stephen A. Cobb
Chief, Land Division
Alabama Department of Environmental
Management

STATE OF ALABAMA)
MONTGOMERY COUNTY)

I, the undersigned Notary Public in and for said County and State, hereby certify that _____, whose name as Chief, Land Division, Alabama Department of Environmental Management is signed to the foregoing conveyance, and who is known to me, acknowledged before me on this day that, being informed of the contents of the conveyance, he approved the same voluntarily on the day the same bears date and with full authority to do so.

Given under my hand and official seal this ____ day of _____, 20__.

Notary Public
My Commission Expires: _____

STATE OF ALABAMA)
CALHOUN COUNTY)

I, hereby certify that the foregoing Environmental Covenant has been recorded in the property records of Calhoun County, Alabama, at Deed Book _____, Page _____
_____.

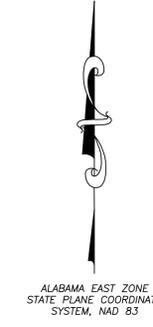
Dated _____, 20____

By: _____
Clerk, Office of Probate Judge

EXHIBIT DRAWING FOR:
McCLELLAN DEVELOPMENT AUTHORITY &
ALABAMA DEPT. OF ENVIRONMENTAL MANAGEMENT
CLEANUP AGREEMENT NO .AL4 210 020 562
CERFA MEC PARCEL MRS-12

SITUATED IN SECTIONS 2, 11 & 12
 LYING IN TOWNSHIP 15 SOUTH, RANGE 8 EAST,
 HUNTSVILLE MERIDIAN, CALHOUN COUNTY, ALABAMA

SITE NOTES:
 MEC AREA, MRS-12 LIES WITHIN THE McCLELLAN DEVELOPMENT AUTHORITY (MDA) PROPERTY AS DESCRIBED IN DEED BOOK 3039, PAGE 291 (PROPERTY DESCRIPTION)
 DEED BOOK 3125, PAGE 275 (TRANSFER TO THE MDA)
 MRS-12, NO DIG AND GROUNDWATER USE PROHIBITION AREA 1: 7.35± ACRES
 MRS-12, NO DIG AND GROUNDWATER USE PROHIBITION AREA 2: 85.26± ACRES
 MRS-12, NO DIG AND GROUNDWATER USE PROHIBITION AREA 3: 2.67± ACRES
 TOTAL AREA OF NO DIG AND GROUNDWATER USE RESTRICTIONS: 95.28± ACRES
 TOTAL AREA OF RESIDENTIAL AND GROUNDWATER USE RESTRICTIONS: 6.54± ACRES
 TOTAL AREA OF RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND GROUNDWATER USE RESTRICTIONS: 0.23± ACRES

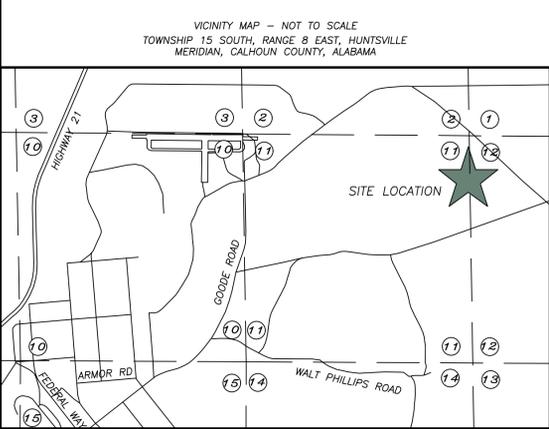
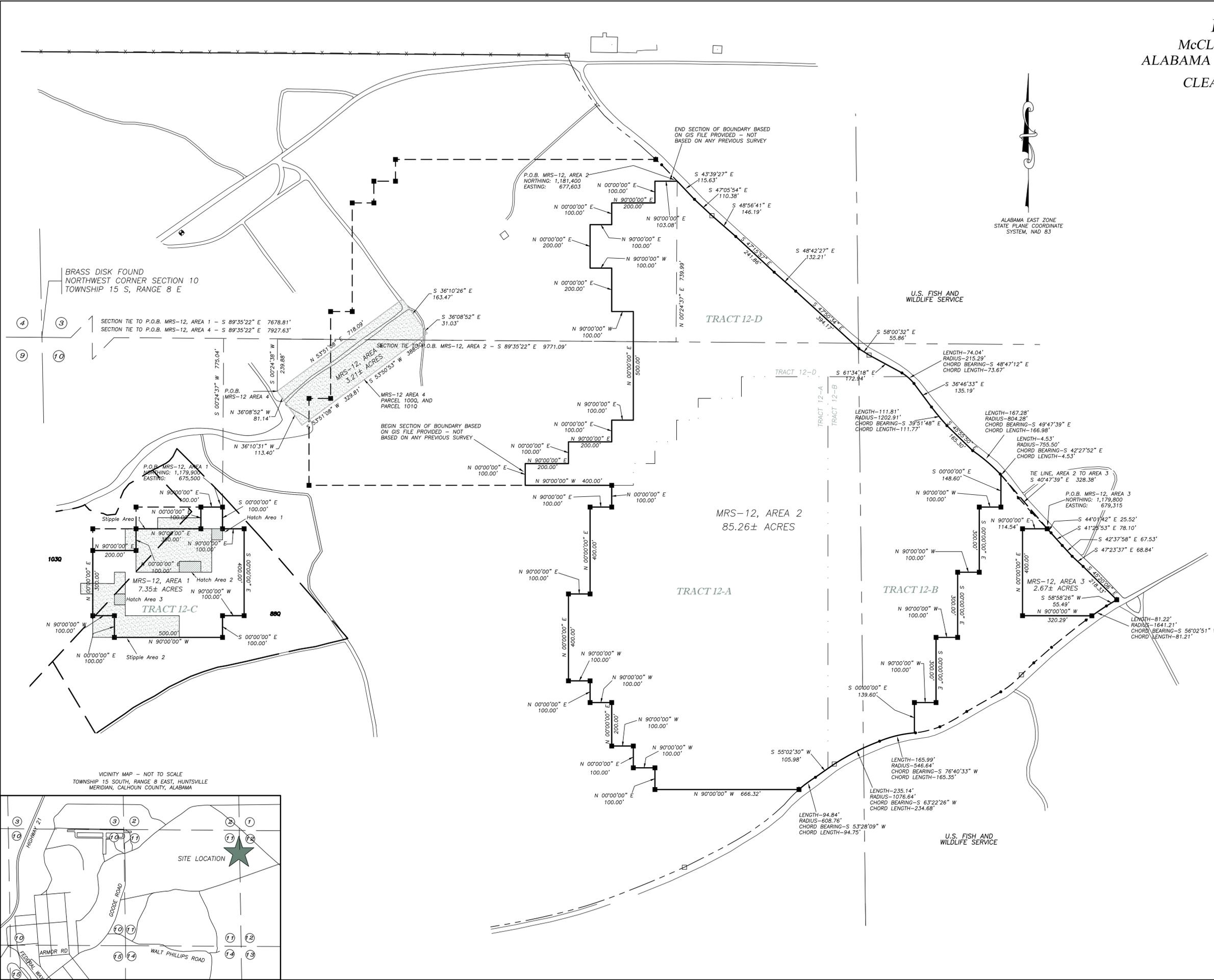


LEGEND

- MRS-12, NO DIG AND GROUNDWATER USE PROHIBITION AREA BOUNDARY
- APPROXIMATE PROPERTY BOUNDARIES
- MRS-12, MEC INVESTIGATION BOUNDARY
- RESIDENTIAL AND GROUNDWATER USE PROHIBITION AREA
- RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND GROUNDWATER USE PROHIBITION AREA
- CHAINLINK FENCE
- FLOOD ZONE
- OVERHEAD UTILITIES
- TRACT DIVISION LINES
- CONCRETE MONUMENT FOUND
- 6-INCH MAG HUB PREVIOUSLY SET
- UNMONUMENTED CORNER
- UTILITY POLE
- MONITORING WELL



NOTES:
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 THIS IS AN EXHIBIT DRAWING ONLY AND SHOULD ONLY BE USED AS A REFERENCE FOR THE LOCATION OF THE CERFA PARCEL(S) DEPICTED HEREON. THIS DRAWING IS NOT A PLAT OF A SURVEY AND SHOULD NOT BE USED TO CONVEY PROPERTY. THERE IS NO CERTIFICATION OF THE ACCURACY OF THE MEASUREMENTS SHOWN HEREON.
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 PROJECT # 230597 DATE: 10/02/2023

June 20, 2024

Ms. Ashley T. Mastin, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Submission of *Second Addendum to Corrective Measures Implementation Plan, Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)*

Dear Ms. Mastin:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit the *Second Addendum to the Corrective Measures Implementation Plan, Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)* for your review. This CMIP formalizes the modified frequency of groundwater sampling referenced in your March 27, 2024 Review and Comments letter on the *Corrective Measures Effectiveness Report, September 2022 to March 2023 Monitoring Events Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)* and also requests a modification of the monitoring well network in Table V.1. of the Cleanup Agreement. If these changes are acceptable, we request these changes be incorporated in the next modification to the Cleanup Agreement.

Two hard copies and an emailed copy have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

**Second Addendum to Corrective Measures
Implementation Plan
Training Area T-6 (Naylor Field), Parcel 183(6) and Cane
Creek Training Area, Parcel 510(7)
McClellan, Anniston, Alabama**

Prepared for:



**McClellan Development Authority
Anniston, Alabama**

Prepared by:



**283 Rucker St
Anniston, AL 36205**

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June 2024

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LIST OF ACRONYMS

1,1,2-TCA	1,1,2-trichloroethane
1,1,2,2-PCA	1,1,2,2-tetrachloroethane
ADEM	Alabama Department of Environmental Management
Army	Department of the Army
AS	Air Sparge
BGS	Below Ground Surface
CA	Cleanup Agreement
CMER	Corrective Measures Effectiveness Report
CMIP	Corrective Measures Implementation Plan
CMIR	Corrective Measures Implementation Report
COC	Constituent of Concern
CWM	Chemical Weapons Materiel
ESCA	Environmental Services Cooperative Agreement
EVO	Emulsified Vegetable Oil
FOSET	Finding of Suitability for Early Transfer
gal	gallon
GPS	Groundwater Protection Standard
ISB	In-situ Bioremediation
JPA	Anniston-Calhoun County Fort McClellan Development Joint Powers Authority
lb	pound
LTM	Long-term Monitoring
McClellan	Former Fort McClellan
MDA	McClellan Development Authority
MES	Matrix Environmental Services, LLC
MSL	Mean Sea Level
PCE	Tetrachloroethene
RBTL	Risk-Based Target Level
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
Shaw	Shaw Environmental, Inc.
Site	Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)
SVE	Soil Vapor Extraction
TCE	Trichloroethene
U.S.	United States
UIC	Underground Injection Control
VOC	Volatile Organic Compound

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1.0 INTRODUCTION AND SITE HISTORY

1.1 PURPOSE

Three rounds of groundwater remediation, that included one round of soil vapor extraction (SVE) and air sparge (AS) system followed by two rounds of in-situ bioremediation (ISB), were implemented at the Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7) (collectively referred to as the Site) to reduce concentrations of corrective action constituents of concern (COCs) 1,1,2,2-tetrachloroethane (1,1,2,2-PCA), 1,1,2-trichloroethane (1,1,2-TCA), chloroform, tetrachloroethene (PCE), and trichloroethene (TCE) in groundwater. Thirteen years of post-remediation groundwater monitoring have demonstrated a reduction in COC concentrations although concentrations of 1,1,2,2-PCA exceed the groundwater protection standard (GPS) in wells CWM-183-MW09 and CWM-183-MW23 and TCE is exceeded in wells CWM-183-MW13 and CWM-183-MW20 and PCE in wells CWM-183-MW20 and CWM-183-MW23.

In the Corrective Measures Effectiveness Report (CMER) (Matrix Environmental Services, LLC [MES], 2023), the McClellan Development Authority (MDA) proposed to modify the groundwater sampling frequency from semi-annual to annual. On March 27, 2024, the Alabama Department of Environmental Management (ADEM) concurred with the proposed revised sampling frequency and requested that annual sampling occur during the spring sampling period. The purpose of this Second Addendum to the Corrective Measures Implementation Plan (CMIP) is to formalize the modified frequency of groundwater sampling in a CMIP.

1.2 BACKGROUND

This work is being performed on behalf of the MDA after assuming from the United States (U.S.) Department of the Army (Army) the responsibility for environmental closure of certain sites at McClellan. Transfer of these sites to the MDA was conducted pursuant to Comprehensive Environmental Response, Compensation, and Liability Act Section 120(h)(3)(C) which allows federal agencies to transfer contaminated property before all necessary cleanup has taken place.

The basis for the cleanup effort at these parcels is an Environmental Services Cooperative Agreement (ESCA) DASW01-03-2-001 effective September 30, 2003, between the MDA (formerly the Anniston-Calhoun County Fort McClellan Development Joint Powers Authority (JPA)) and the Army (Army, 2003) which was superseded by ESCA Agreement W9128F-07-2-0163 on September 11, 2007, and its subsequent modifications (Army, 2007). In addition, the MDA negotiated a Cleanup Agreement (CA), amended most recently in July 2019, with ADEM that describes the responsibilities for completing the investigation and remediation of potentially impacted sites at McClellan (ADEM, 2003, 2005, 2009, 2011, and 2014). Property that was determined by the Army and ADEM to be suitable for transfer (i.e., “clean property”) was transferred to the JPA under a Finding of Suitability for Transfer. Subsequently, remaining contaminated property was transferred to the JPA under a Finding of Suitability for Early Transfer (FOSET). The basis for the continuing cleanup effort at these FOSET parcels is the execution of the ESCA and the CA.

2.0 SITE CONDITIONS

2.1 SITE DESCRIPTION

Training Area T-6, historically known as the Howitzer Hill Decontamination Area or the Former Agent Decontamination Training Area, is a wooded area approximately 10 acres in size, located at the base of the northeastern slope of Howitzer Hill, west of Fox Road and the South Branch of Cane Creek in the west-central area of McClellan (Figure 1). Training Area T-6 was used by the Army sometime prior to 1954 until 1973. Decontamination of chemical weapons materiel (CWM) was performed at Training Area T-6 during routine military training exercises. The training sites consisted of concrete pads and a network of drainage ditches and trenches, where the decontamination agents and CWM were rinsed and collected.

Cane Creek Training Area is located adjacent to and northeast of Training Area T-6 and southeast of the intersection of Derby Street and Fox Road in the west-central area of McClellan (Figure 1). Cane Creek Training Area is approximately two acres in size and straddles the South Branch of Cane Creek. In 1958, this area was reportedly used for training in decontamination procedures of military equipment, but it is unknown if toxic agents were used (Shaw Environmental, Inc. [Shaw], 2004).

The Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI) (MES, 2007) conducted at the Site defined the nature and extent, fate and transport, and risk presented as a result of chlorinated volatile organic compounds (VOCs) in soil, sediment, surface water, and groundwater. The highest concentrations of VOCs in groundwater were found in wells located in the vicinity of the trenches and concrete pads (i.e., estimated source area) and a general decrease in VOC concentrations was indicated in wells downgradient from the estimated source area (Figure 2).

2.2 REGIONAL AND SITE-SPECIFIC GEOLOGY

The Site lies within the Valley and Ridge Province, which is part of the Appalachian fold-and-thrust structural belt. The fold and thrust belt generally features southeastward-dipping thrust faults with associated minor folding consisting of Paleozoic sedimentary rocks that have been asymmetrically folded and thrust-faulted with major structures and faults striking in a northeast-southwest direction. Geologic contacts in this region generally strike parallel to the faults, and repetition of lithologic units is common in vertical sequences.

Bedrock beneath the Site is mapped as undifferentiated Ordovician-age Little Oak and Newala Limestones and Mississippian/Ordovician-age Floyd and Athens Shale (Osborne et al., 1997; Shaw, 2004). An asymmetric anticlinal fold strikes northeast-southwest across the Site and plunges to the southwest (Figure 3). The Mississippian/Ordovician-age Floyd and Athens Shale is mapped along the limb of the limestone anticline to the north and northwest. The extreme southwestern corner of the Site is mapped as the Cambrian Chilhowee Group that comprises part of the Jacksonville thrust sheet. An inferred thrust fault, trending northwest to southeast, is mapped to the southeast of the parcel and approximately parallels the fold (Osborne et al., 1997).

The northern limb of the limestone anticline traverses the Site from the northeast to southwest. The thickness of the limestone varies between 92 feet and 132 feet.

Residuum at the Site consists mainly of clay and silt interspersed with small amounts of sand and gravel and varies in thickness between 4 feet and 44 feet.

Large voids within the limestone were generally encountered in the upper 40 feet of bedrock (Shaw, 2004). Moderately weathered to unweathered, soft to moderately hard, highly to intensely fractured, gray to black shale with calcite veins typical of the Floyd Athens Shale was identified in the northern and southern portions of the Site.

2.3 HYDROGEOLOGY

Groundwater in the vicinity of McClellan generally occurs in residuum derived from bedrock decomposition, within fractured bedrock along fault zones, and from the development of karst frameworks. Water tables in areas with well-developed residuum horizons may subtly reflect the surface topography, but the groundwater flow direction also may exhibit the influence of structural features (e.g., thrust fault zones).

Groundwater at Training Area T-6 is influenced by several hydrogeologic factors. Three of the main hydraulic factors influencing groundwater flow include (MES, 2007):

- **The South Branch of Cane Creek:** The South Branch of Cane Creek acts as a gaining stream or losing stream depending on the time of year, the amount of precipitation in the area, and the local geology.
- **Limestone Anticline:** Drilling logs indicate that the limestone anticline has numerous fractures, void spaces, and solution cavities as a part of the karst hydrogeological framework. Solution cavities can act as preferential pathways for groundwater flow.
- **Surface Topography:** The local topography slopes towards the South Branch of Cane Creek from north and south. On the north side of the South Branch of Cane Creek, the topography slopes gently towards the creek. On the south side of the creek is Howitzer Hill, the largest topographic feature in the area, where the topography slopes steeply towards the South Branch of Cane Creek.

Groundwater flow within the residuum generally conforms to surface topography and flows predominately to the northeast towards the South Branch of Cane Creek. Based on historic data, the South Branch of Cane Creek generally acts as a losing stream in the southern portion of the Site (approximately within the limestone strike), and as a gaining stream in the northern portion of the Site (approximately within the local shale bedrock). Groundwater flow in the bedrock water-bearing zone tends to demonstrate convergent flow along the estimated limestone strike towards the northeast, where it gradually turns to the north near the South Branch of Cane Creek.

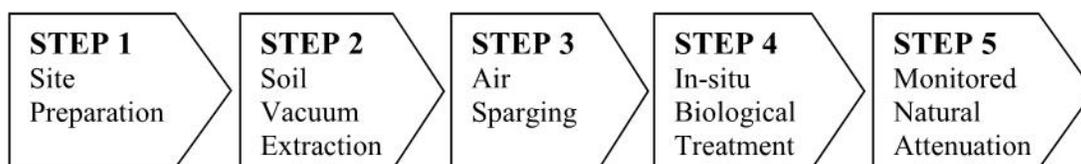
3.0 CORRECTIVE MEASURES

3.1 CORRECTIVE MEASURES HISTORY

In August 2008, MES submitted the Final CMIP for the Site that identified chemical-specific GPSs for the groundwater corrective action COCs. The GPSs are based on a groundskeeper risk-based target level calculated using a cumulative carcinogenic risk of 10^{-5} pursuant to the Alabama Risk-Based Corrective Action Guidance Manual (ADEM, 2017). The GPSs for the Site are listed in Table V.3 of the CA (shown below):

Hazardous Constituent	Concentration Limit (µg/L)
1,1,2,2-PCA	13.6
1,1,2-TCA	50.2
Chloroform	986
PCE	4.43
TCE	205

An SVE/AS system was installed at Training Area T-6 in 2009 as a component of the groundwater remedy, per the Final CMIP (MES, 2008) and as described in the Final Corrective Measures Implementation Report (CMIR) and CMER; (MES, 2013). The layout of the SVE/AS system is shown in Figure 4. Operation of the SVE/AS system was initiated in March 2010 and operated for approximately three years at which time it was determined to have achieved near maximum benefit. Consistent with the treatment train approach illustrated below and documented in the Final CMIP (MES, 2008) and with concurrence from the ADEM, the SVE/AS system was shut down in November 2013 to allow the existing groundwater remediation system to be transitioned from SVE/AS to an ISB system for further remediation of COCs.



In January 2015, MES and subcontractor Geosyntec implemented ISB injection activities in accordance with the Underground Injection Control (UIC) Permit ALSI9908664 (ADEM, 2014) and documented in the Remedy Selection Update / Addendum to Final CMIP (MES, 2015). Injection was performed in the eight existing SVE wells, and included the following permitted amendments: (i) emulsified vegetable oil (EVO); (ii) sodium bicarbonate as a pH buffer; (iii) sodium bromide, a conservative tracer to aid in monitoring amendment distribution; (iv) KB-1[®] Plus, a bioaugmentation culture including *Dehalococcoides* and *Dehalobacter*; (v) sodium sulfite, a chemical reductant for preparing anaerobic water; and (vi) potable water. A total volume of 20,480 gallons (gal) of amendment solution was injected containing 2,000 gal of EVO; 6,680 pounds (lbs) of sodium bicarbonate; 50 lb of sodium bromide; 16 liters of KB-1[®] Plus; and approximately 0.2 lb of sodium sulfite.

Following implementation of ISB, additional fieldwork involving high vacuum sampling and membrane interface probe technology was conducted around wells CWM-183-MW23, CWM-183-MW07, and CWM-183-MW09 to refine the footprint for potential additional treatment in these areas. A subsequent ISB application was implemented between July 10 and August 1, 2017, in accordance with UIC Permit ALSI9908664 (ADEM, 2016) to optimize the groundwater remedy in areas near CWM-183-MW23, CWM-183-MW07, and CWM-183-MW09 as described in the Remedy Selection Update / Addendum to Final CMIP (MES, 2017). Prepared solutions were injected into 35 direct push technology injection points (Figure 5). The injected solutions included the following permitted amendments: (i) EVO; (ii) sodium bicarbonate; (iii) sodium sulfite; (iv) KB-1[®] Plus; and (v) potable water. A total volume of 55,530 gal of amendment solution was injected containing 2,773 gal of EVO; 19,600 lb of sodium bicarbonate; 53 liters of KB-1[®] Plus; and 3,016 gal of anaerobic chase water. Approximately 1.6 lb of sodium sulfite was dissolved into the anaerobic chase water.

4.0 LONG-TERM MONITORING

4.1 LONG-TERM MONITORING OF GROUNDWATER

The thirteenth year of semi-annual long-term monitoring (LTM) of groundwater following implementation of the initial corrective measures in 2010 has been completed and was reported in the CMER (MES, 2023). In general, remediation has been effective in decreasing the concentrations of COCs as demonstrated by increases in daughter products. COCs 1,1,2-TCA, chloroform, and PCE were not detected above the GPS in any wells during the thirteenth year of post-remediation monitoring (Table 1).

In the 2023 CMER, MDA proposed to alter the groundwater sampling frequency to annually based on the stability of the contaminant concentrations and overall decreasing concentrations. In the ADEM’s review and comments on the CMER dated March 27, 2024, the Department requested that annual sampling occur during the spring sampling period as there are higher groundwater elevations resulting in few dry wells. MDA will implement annual LTM of groundwater during the spring in order to continue tracking monitored natural attenuation of COCs which is the final step in the treatment train outlined in the Final CMIP (MES, 2008).

MDA proposes that residuum monitoring wells CWM-183-MW06 and CWM-183-MW25, as well as bedrock monitoring wells CWM-183-MW19, CWM-183-MW28, and CWM-183-MW31, be removed from further groundwater quality sampling due to the limited number of historical COC and daughter product detections above the GPS (Table 1). The last detection of a COC exceeding a GPS in CWM-183-MW06 was 1,1,2,2-PCA in September 2014. In wells CWM-183-MW19 and CWM-183-MW25, there has been only one instance in the past ten years where 1,1,2,2-PCA exceeded the GPS. Additionally, no COCs have been detected above the GPSs in wells CWM-183-MW28 and CWM-183-MW31. The wells recommended for removal from further groundwater monitoring will be retained and not abandoned at this time. The wells proposed for LTM are listed below.

WELL NUMBER	EASTING	NORTHING	WELL DEPTH (ft MSL)	GROUND ELEVATION (ft MSL)	TOP-OF-CASING ELEVATION (ft MSL)	SCREEN INTERVAL (ft BGS)	MONITORED ZONE
CWM-183-MW04	670379.99	1166413.59	23.81	798.34	800.51	12 - 22	Residuum
CWM-183-MW07	670284.13	1166508.69	19.35	798.83	800.93	8 - 18	Residuum
CWM-183-MW08	670223	1166595.78	20	796.74	798.76	8 - 18	Residuum
CWM-183-MW09	670164.19	1166490.93	27.6	806.95	809.18	15 - 25	Residuum
CWM-183-MW11	670248.95	1166405.24	102.61	807.07	809.25	80 - 100	Bedrock
CWM-183-MW13	670384.91	1166423.87	58	799.6	801.81	41 - 56	Bedrock
CWM-183-MW15	670473.69	1166608.85	25.49	790.82	793.21	13 - 23	Residuum
CWM-183-MW16	670477.23	1166600.16	86.41	790.88	793.13	74 - 84	Bedrock
CWM-183-MW17	670374.62	1166723.23	46.6	788.6	790.78	40.5 - 45.5	Bedrock
CWM-183-MW20	670210.79	1166594.56	77.8	796.41	798.81	66 - 76	Bedrock
CWM-183-MW21	670085.25	1166492.38	41.58	811.7	813.92	24 - 39	Residuum
CWM-183-MW22	670080.79	1166485.5	65.75	812.28	814.59	53 - 63	Bedrock
CWM-183-MW23	670206.41	1166328.5	51.19	819.93	822.28	30 - 50	Residuum

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**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW04 (Residuum)																		
		12/11/01	1/24/03	5/28/04	10/10/05	11/6/07	2/3/10	4/1/10	6/7/10	9/7/10	12/7/10	3/8/11	9/14/11	3/20/12	6/21/12	9/19/12	12/12/12	3/28/13	6/12/13	9/25/13
COCs		Historical					Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)		3rd Year O&M (SVE)			4th Year O&M (SVE)		
1,1,2,2-Tetrachloroethane	13.6	25	0.95 J (J)	3.1	0.69 J	<1	0.42 J	20	22	22	200	37	180	72	62	62	54	7.1	10	41
1,1,2-Trichloroethane	50.2	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	1	1.3	2.3	4.2	0.5 J	2.1	1.2	1.8	0.69 J	1.1	0.47 J	0.34 J	0.83 J
Chloroform	986	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.42 J	<1.0	0.9 J	0.26 J	0.54 J	0.38 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	4.43	0.43 J (J)	<1.0	0.22 J	<1.0	<1.0	<1.0	0.26 J	0.2 J	<1.0	0.3 J	0.39 J	<1.0	0.47 J	0.27 J	<1.0	<1.0	0.69 J	0.22 J	<1.0
Trichloroethene	205	9	16	7.9	8.5	1.3	1.4	27	12	10	23	12	16	72	31	9.2	12	43	22	16
Degradation Products																				
1,1-Dichloroethene	4800	<1.0	0.22 J (J)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38 J	<1.0	<1.0
1,2-Dichloroethane	30.8	0.8 J (J)	0.75 J (J)	0.45 J	0.59 J	<1	<1.0	<1.0	<1.0	0.33 J	0.81 J	<1.0	1.1	0.64 J	1.3	0.26 J	0.58 J	0.2 J	0.34 J	0.4 J
Chloroethane	955	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	216	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cis-1,2-Dichloroethene	991	6	19	5.8	5.9	7.5	1.1	4.8	2.9	16	8.2	1.5	7.6	6.5	12	2.3	4.3	10	9.3	6.3
Methylene chloride	375	<2 (UJ)	0.61 J (B)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trans-1,2-Dichloroethene	1,950	2.5	5.3	0.96 J	0.96 J	1.1	0.31 J	0.89 J	0.76 J	6.6	3.7	0.33 J	3.1	3.3	6.4	1.4	2.4	3.4	3.4	3.4
Vinyl chloride	3.86	0.82 J (J)	1.6	0.39 J	1.7	7.1	0.29 J	0.21 J	<0.8	2.8	1.9	<0.8	1.3	1.2	3.3	0.45 J	0.59 J	1.8	1.8	0.88

VOCs (µg/L)	GS RBTL	CWM-183-MW04 (Residuum)																			
		12/16/13	3/25/14	6/11/14	9/10/14	12/12/14	2/24/15	6/1/15	8/26/15	12/1/15	3/2/16	9/26/16	3/15/17	9/14/17	3/15/18	9/17/18	03/12/19	9/26/19	3/18/20	9/23/20	3/24/21
COCs		4th Year O&M (SVE)			5th Year O&M (SVE)			6th Year O&M (ISB)				7th Year O & M (ISB)		8th Year O & M (ISB)		9th Year O & M (ISB)		10th Year O & M (ISB)		11th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	3.5	7.7	1.7	0.49 J	13	1.7	0.85 J	0.75 J	1.0	0.73 J	<1.0	0.95 J	17	0.46 J	dry	22	<1	1.6	<1	23
1,1,2-Trichloroethane	50.2	<1.0	0.26 J	<1.0	<1.0	0.43 J	<1.0	<1.0	0.46 J	<1.0	<1.0	<1.0	<1.0	0.27 J	<1	dry	<1	<1	<1	<1	<1
Chloroform	986	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	dry	<1	<1	<1	<1	<1
Tetrachloroethene	4.43	<1.0	0.25 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	dry	<1	1.8 B (UB)	<1	<1	<1
Trichloroethene	205	33	37	13	9.0	12	1.4	0.67 J	1.0 J	0.58 J	0.50 J	0.28 J	1.4	5.3	4.7	dry	9.7	1	1	0.95 J	8.1
Degradation Products																					
1,1-Dichloroethene	4800	0.32 J	0.48 J	0.21 J	0.23 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.2 J	<1	0.27 J	dry	<1	<1	<1	<1	<1
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	0.59 J	0.22 J	0.24 J	0.74 J	1.2	0.38 J	<1.0	0.32 J	0.37 J	0.32 J	0.75 J	dry	<1	<1	<1	<1	<1
Chloroethane	955	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	dry	<5	<5	<5	<5	<5
Chloromethane	216	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	dry	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethene	991	14	20	17	21	4.0	20	8.2	5.3	1.6	1.8	1.3	8.1	4.5	10	dry	6.1	1.8 B (UB)	4.2	1.7	3.2
Methylene chloride	375	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	dry	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	1,950	4.3	7.6	5.3	5.4	1.6	4.5	3.3	1.8	1.8	0.80 J	0.63 J	2.2	1.7	3.3	dry	1.6	0.58 J	1.7	0.58 J	1.4
Vinyl chloride	3.86	2	2.3	1.5	9.5	0.38 J	11	27 (JM)	8.7	8.3	3.7	3.1	12	5.7	13	dry	4.1	3.6	4.00	6.80	3.0

VOCs (µg/L)	GS RBTL	CWM-183-MW04 (Residuum)			
		9/20/21	3/15/22	9/20/22	3/20/23
COCs		12th Year O & M (ISB)		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	<1	<1	<1	<1
1,1,2-Trichloroethane	50.2	<1	<1	<1	<1
Chloroform	986	<1	<1	<1	<1
Tetrachloroethene	4.43	<0.5	<0.5	<0.5	<0.5
Trichloroethene	205	<1	<1	0.83 J	0.85 J
Degradation Products					
1,1-Dichloroethene	4800	<1	<1	<1	<1
1,2-Dichloroethane	30.8	0.27 J	<1	<1	<1
Chloroethane	955	<5	<5	<5	<5
Chloromethane	216	<1	<1	<1	<1 (UJ)
Cis-1,2-Dichloroethene	991	2.3	2.1	3.5	3.8
Methylene chloride	375	<5	<5	<5	<5
Trans-1,2-Dichloroethene	1,950	0.7 J	0.86 J	0.47 J	2.4
Vinyl chloride	3.86	5.9	8.9	5	4.8

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW06 (Residuum)																			
		12/18/01	1/29/03	10/10/05	11/5/07	2/3/10	4/1/10	6/7/10	9/7/10	12/6/10	3/8/11	9/14/11	3/20/12	6/20/12	9/20/12	12/13/12	3/28/13	6/13/13	9/25/13	12/17/13	3/26/14
		Historical				Baseline/1st Year O&M (SVE)					2nd Year O&M (SVE)		3rd Year O&M (SVE)			4th Year O&M (SVE)					
1,1,2,2-Tetrachloroethane	13.6	17	50	32	5.1	140	81	89	dry	39	130	58	39	dry	18	15	7.2	11	79	6.7	94
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	0.26 J	0.31 J	2.5	dry	1	< 1.0	0.23 J	< 1.0	dry	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	986	600 (J)	570	1100 (JA)	630	3.2	2.2	2	dry	3.3	0.54 J	41	0.74 J	dry	18	62	< 1.0	0.32 J	14	0.53 J	0.24 J
Tetrachloroethene	4.43	0.34 J (J)	1.1	0.76 J	0.31 J	1	0.94 J	0.42 J	dry	0.44 J	0.29 J	0.3 J	< 1.0	dry	0.27 J	0.25 J	< 1.0	< 1.0	0.54 J	< 1.0	< 1.0
Trichloroethene	205	18	45	35	21	48	33	22	dry	32	16	36	8.5	dry	13	24	1.5	4.2	29 (JM)	3.3	7.8
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	dry	< 1.0	< 1.0	< 1.0	< 1.0	dry	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.8	dry	0.73 J	< 1.0	< 1.0	< 1.0	dry	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	955	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloromethane	216	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Cis-1,2-Dichloroethene	991	< 1.0	0.22 J (J)	< 1.0	< 1.0	4	4.8	27	dry	35	0.51 J	0.69 J	< 1.0	dry	< 1.0	0.25 J	< 1.0	< 1.0	< 1.0	< 1.0	0.26 J
Methylene chloride	375	0.43 J (B)	0.52 J (B)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	dry	2.8	< 1.0	< 1.0	< 1.0	dry	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	dry	0.25 J	< 0.8	< 0.8	< 0.8	dry	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8

VOCs (µg/L)	GS RBTL	CWM-183-MW06 (Residuum)																			
		6/11/14	9/9/14	12/15/14	3/2/15	6/2/15	8/31/15	12/13/15	3/2/16	9/23/16	3/16/17	9/13/17	3/15/18	09/17/18	03/12/19	9/25/19	3/19/20	9/23/20	3/24/21	9/20/21	3/16/22
		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	3.3	28	11	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	4.2	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Chloroform	986	< 1.0	29	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 0.5	< 0.5
Trichloroethene	205	2.3	20	15	< 1.0	0.2 J	0.84 J	< 1.0	0.31 J	< 1.0	< 1.0	< 1	0.23 J	< 1	< 1	< 1 *	< 1	< 1	0.49 J	< 1	1.3
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.34 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5 *	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1.0	0.21 J	< 1.0	< 1.0	< 1.0	0.38 J	< 1.0	< 1.0	2.2	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	0.57 J	2 U [^] (UB)	< 2	< 2	< 2	< 2	< 5	< 5	< 5 *	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1

VOCs (µg/L)	GS RBTL	CWM-183-MW06	
		9/21/22	3/20/23
COCs			
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	0.28 J	< 1
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1	< 1
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	< 1	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW07 (Residuum)																	
		1/29/03	2/4/10	4/1/10	6/7/10	9/7/10	12/7/10	3/10/11	9/14/11	3/20/12	6/20/12	9/20/12	12/12/12	4/4/13	6/12/13	9/25/13	12/19/13	3/27/14	
COCs	Historical	Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)					
1,1,2,2-Tetrachloroethane	13.6	8,600	2,200	2,800	dry	dry	dry	750	dry	dry	dry	dry	dry	550	dry	dry	680	1200	
1,1,2-Trichloroethane	50.2	64	17	25 (JS)	dry	dry	dry	14	dry	dry	dry	dry	dry	7.4	dry	dry	8.8	13	
Chloroform	986	140	60	72 (JS)	dry	dry	dry	42	dry	dry	dry	dry	dry	20	dry	dry	26	38	
Tetrachloroethene	4.43	57	13	15 (JS)	dry	dry	dry	23	dry	dry	dry	dry	dry	13	dry	dry	7.5	21	
Trichloroethene	205	5,500	1,900	2,300	dry	dry	dry	2100	dry	dry	dry	dry	dry	1100	dry	dry	1100	2000	
Degradation Products																			
1,1-Dichloroethene	4800	1.3	0.22 J	0.28 J (JS)	dry	dry	dry	0.51 J	dry	dry	dry	dry	dry	< 1.0	dry	dry	< 1.0	0.32 J	
1,2-Dichloroethane	30.8	0.49 J (J)	< 1	< 1.0 (UJS)	dry	dry	dry	< 1	dry	dry	dry	dry	dry	< 1.0	dry	dry	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0 (UJS)	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	< 2.0	dry	dry	< 2.0	< 2.0	
Chloromethane	216	< 1.0	< 2.0	< 2.0 (UJS)	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	< 2.0	dry	dry	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	180	27	42 (JS)	dry	dry	dry	53	dry	dry	dry	dry	dry	9.5	dry	dry	8.7	15	
Methylene chloride	375	2.7 (B)	< 2.0	< 2.0 (UJS)	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	2.0 U^ (UB)	dry	dry	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	42	3.8	5.9 (JS)	dry	dry	dry	8.4	dry	dry	dry	dry	dry	1.4	dry	dry	1.3	2.2	
Vinyl chloride	3.86	1.2	< 0.8	< 0.8 (UJS)	dry	dry	dry	0.91	dry	dry	dry	dry	dry	0.22 J	dry	dry	0.68 J	0.64 J	

VOCs (µg/L)	GS RBTL	CWM-183-MW07 (Residuum)																		
		6/12/14	9/9/14	12/11/14	2/25/15	6/4/15	9/1/15	12/7/15	3/8/16	9/28/16	3/20/17	9/18/17	3/15/18	06/11/18	9/17/18	03/13/19	03/19/20	3/24/21	9/20/21	3/16/22
COCs		5th Year O&M (SVE)			5th Year O&M (ISB)			6th Year O&M (ISB)			7th Year (ISB)		8th Year (ISB)		9th Year (ISB)			10th Year	11th Year	12th Year (ISB)
1,1,2,2-Tetrachloroethane	13.6	430	dry	dry	470	630	340	370	130	dry	260	45	4.2	1.5	dry	2.9	1.3	1.5	6	3
1,1,2-Trichloroethane	50.2	7.1	dry	dry	9.3	6.7	5.1	6.0	1.9	dry	4.2	0.48 J	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1
Chloroform	986	18	dry	dry	22	19	15	13	4.4	dry	9.9	3.7	0.41 J	< 1	dry	< 1	< 1	< 1	0.44 J	< 1
Tetrachloroethene	4.43	9.2	dry	dry	10	8.9	2.8	4.7	3.2	dry	7.1	2.1	0.33 J	< 1	dry	< 1	< 1	< 1	< 0.5	< 0.5
Trichloroethene	205	1000	dry	dry	1100	990	550	670	290	dry	490	170	7.4	4.7	dry	7.9	5.6	16	14	18
Degradation Products																				
1,1-Dichloroethene	4800	0.21 J	dry	dry	0.26 J	< 1.0	< 1.0	1.7	0.34 J	dry	0.75 J	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	30.8	< 1	dry	dry	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	dry	< 1.0	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1
Chloroethane	955	< 2	dry	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2	< 2	< 2	< 5	dry	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2	dry	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2	< 2	< 2	< 1	dry	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	12	dry	dry	24	13	4.8	15	6.6	dry	7.1	5	33	2.1	dry	0.84 J	1.5	2.0	9.9	1.6
Methylene chloride	375	< 2	dry	dry	< 2.0	< 2.0	< 2.0	2 U^ (UB)	< 2.0	dry	< 2	< 2	< 2	< 5	dry	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	1.9	dry	dry	1.4	0.72 J	0.29 J	0.89 J	0.51 J	dry	0.45 J	< 1	3.9	0.68 J*	dry	< 1	< 1	< 1	0.66 J	< 1
Vinyl chloride	3.86	1	dry	dry	0.52 J	0.35 J	< 0.8	1.4	0.92	dry	0.2 J	< 0.8	21	1.2	dry	< 1	< 1	< 1	0.74 J	< 1

VOCs (µg/L)	GS RBTL	CWM-183-MW07	
		9/19/22	3/15/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	dry	0.79 J
1,1,2-Trichloroethane	50.2	dry	< 1
Chloroform	986	dry	< 1
Tetrachloroethene	4.43	dry	< 0.5
Trichloroethene	205	dry	11
Degradation Products			
1,1-Dichloroethene	4800	dry	< 1
1,2-Dichloroethane	30.8	dry	< 1
Chloroethane	955	dry	< 5
Chloromethane	216	dry	< 1
Cis-1,2-Dichloroethene	991	dry	1.5
Methylene chloride	375	dry	< 5
Trans-1,2-Dichloroethene	1,950	dry	< 1
Vinyl chloride	3.86	dry	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW08 (Residuum)																		
		12/13/01	1/23/03	11/6/07	2/4/10	4/1/10	6/8/10	9/8/10	12/7/10	3/8/11	9/13/11	3/20/12	6/20/12	9/19/12	12/12/12	3/28/13	6/12/13	9/24/13	12/17/13	3/27/14
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)			
1,1,2,2-Tetrachloroethane	13.6	22	75	3	8.3	18	14	11	5.8	2.7	3.6	26	11	4.9	6.8	12	13	16	2.1	13
1,1,2-Trichloroethane	50.2	0.73 J (J)	0.66 J (J)	0.35 J	0.65 J	2	1.9	0.64 J	0.57 J	<1	0.5 J	2	1.2	0.39 J	0.77 J	0.68 J	0.85 J	0.9 J	<1.0	0.54 J
Chloroform	986	1.8 (B)	1.8	0.66 J	0.77 J	2.2	2.3	0.71 J	0.66 J	0.32 J	0.81 J	1.7	0.89 J	0.62 J	0.71 J	0.81 J	0.84 J	0.79 J	0.23 J	0.57 J
Tetrachloroethene	4.43	2.9	2.3	2.1	7	22	24	3.6	4.5	3.3	5.8	21	7.1	4.2	4.9	6.6	7.9	8.4	1.8	3.6
Trichloroethene	205	220	150	200	630	1,800	1,800	390	380	260	530	1700	1100	260	620	560	580	620	130	370
Degradation Products																				
1,1-Dichloroethene	4800	<1.0	<1.0	<1.0	<1.0	0.31 J	0.48 J	<1.0	<1.0	<1.0	<1.0	0.39 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	955	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	216	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cis-1,2-Dichloroethene	991	7.2	5.2	9.4	2.2	6.0	7.1	4.1	3.4	1	3.3	6.4	6.6	1.7	7.3	2.5	2.9	4.4	1.7	2.2
Methylene chloride	375	0.35 J (B)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trans-1,2-Dichloroethene	1,950	0.24 J (J)	0.59 J (J)	0.51 J	0.27 J	0.63 J	0.69 J	0.31 J	<1.0	<1.0	<1.0	0.74 J	0.38 J	<1.0	0.23 J	0.28 J	0.29 J	0.36 J	<1	0.2 J
Vinyl chloride	3.86	<1.0	<1.0	<1.0	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.35 J	<0.8	<0.8

VOCs (µg/L)	GS RBTL	CWM-183-MW08 (Residuum)																			
		6/12/14	9/9/14	12/11/14	2/26/15	6/2/15	8/25/15	12/7/15	3/7/16	9/27/16	3/16/17	9/14/17	3/14/18	9/18/18	3/18/19	9/25/19	3/19/20	9/23/20	3/24/21	9/17/21	3/15/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	3.2	6.6	4.5	2.0	0.38 J	<1.0	0.53 J	0.41 J	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	50.2	<1.0	0.68 J	0.47 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	986	<1.0	0.68 J	0.48 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	4.43	2.9	3.9	3.6	0.6 J	<1.0	<1.0	0.26 J	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5
Trichloroethene	205	170	550	210	9.0	3.8	1.2	1.8	2.1	17	1.1	0.49 J	0.39 J	<1	0.5 J	<1	3.8	9.3	0.48 J	1.4	3.8
Degradation Products																					
1,1-Dichloroethene	4800	<1.0	<1.0	<1.0	0.26 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	0.66 J	<1	<1	<1	<1	0.93 J	<1	<1	<1
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	0.44 J	0.27 J	0.23 J	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	0.3 J	<1
Chloroethane	955	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5
Chloromethane	216	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethene	991	0.86 J	7.0	1.6	100	12	0.98 J	1.0	2.1	18	1.7	2.5	1.1	1.7	0.6 J	1 U [^] (UB)	3.2	45	1.1	1.5	2.3
Methylene chloride	375	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	1,950	<1.0	0.31 J	<1.0	0.2 J	0.9 J	0.98 J	0.29 J	0.37 J	1.3	<1.0	1.1	0.3 J	5.7	<1	2.2 B	0.92 J	4.4	<1	0.39 J	<1
Vinyl chloride	3.86	<0.8	<0.8	<0.8	1.7	170	3.7	1.6	1.9	13	0.66 J	5	0.77 J	3.1	0.59 J	2.4	2.9	32	<1	3.3	<1

VOCs (µg/L)	GS RBTL	CWM-183-MW08	
		9/21/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	<1	<1
1,1,2-Trichloroethane	50.2	<1	<1
Chloroform	986	<1	<1
Tetrachloroethene	4.43	<0.5	<0.5
Trichloroethene	205	88	3.1
Degradation Products			
1,1-Dichloroethene	4800	2.6	<1
1,2-Dichloroethane	30.8	<1	<1
Chloroethane	955	<5	<5
Chloromethane	216	<1	<1
Cis-1,2-Dichloroethene	991	88	3.5
Methylene chloride	375	<5	<5
Trans-1,2-Dichloroethene	1,950	3.5	<1
Vinyl chloride	3.86	22	0.77 J

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW09 (Residuum)																			
		1/28/03	5/27/04	2/4/10	3/31/10	6/7/10	9/7/10	12/7/10	3/10/11	9/14/11	3/20/12	6/20/12	9/20/12	12/12/12	4/4/13	6/12/13	9/25/13	12/19/13	3/27/14	6/12/14	9/9/14
COCs		Historical		Baseline/1st Year O&M (SVE)							2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)			5th Year O&M (SVE)	
1,1,2,2-Tetrachloroethane	13.6	460	390	18	6.8	dry	dry	dry	39	dry	dry	dry	dry	dry	33	dry	dry	89	94	41	dry
1,1,2-Trichloroethane	50.2	0.8 J (J)	1.4	0.7 J	0.33 J	dry	dry	dry	0.83 J	dry	dry	dry	dry	dry	0.71 J	dry	dry	1.2	0.99 J	0.69 J	dry
Chloroform	986	1.8	1.6	0.37 J	< 1	dry	dry	dry	0.58 J	dry	dry	dry	dry	dry	0.5 J	dry	dry	1.1	0.8 J	0.68 J	dry
Tetrachloroethene	4.43	4.3 (J)	7.1	0.57 J	0.26 J	dry	dry	dry	1.6	dry	dry	dry	dry	dry	1.6	dry	dry	2.6	2.4	1.2	dry
Trichloroethene	205	280	510	51	27	dry	dry	dry	150	dry	dry	dry	dry	dry	140	dry	dry	320	180	130	dry
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	dry	dry	dry	< 1.0	dry	dry	dry	dry	dry	< 1.0	dry	dry	< 1.0	< 1.0	< 1.0	dry
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	dry	dry	dry	< 1.0	dry	dry	dry	dry	dry	< 1.0	dry	dry	< 1.0	< 1.0	< 1.0	dry
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	< 2.0	dry	dry	< 2.0	< 2.0	< 2.0	dry
Chloromethane	216	< 1.0	< 2.0	< 2.0	< 2.0	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	< 2.0	dry	dry	< 2.0	< 2.0	< 2.0	dry
Cis-1,2-Dichloroethene	991	1.3	3.9	3	1.9	dry	dry	dry	7	dry	dry	dry	dry	dry	4.9	dry	dry	4.8	5.1	5.5	dry
Methylene chloride	375	0.56 J (B)	< 2.0	< 2.0	< 2.0	dry	dry	dry	< 2.0	dry	dry	dry	dry	dry	2.0 U [^] (UB)	dry	dry	< 2.0	< 2.0	< 2.0	dry
Trans-1,2-Dichloroethene	1,950	0.24 J (J)	1.7	< 1.0	< 1.0	dry	dry	dry	< 1.0	dry	dry	dry	dry	dry	< 1.0	dry	dry	0.22 J	0.21 J	< 1.0	dry
Vinyl chloride	3.86	< 1.0	< 1.0	< 0.8	< 0.8	dry	dry	dry	< 0.8	dry	dry	dry	dry	dry	< 0.8	dry	dry	< 0.8	< 0.8	< 0.8	dry

VOCs (µg/L)	GS RBTL	CWM-183-MW09 (Residuum)																			
		12/11/14	3/3/15	6/4/15	9/1/15	12/9/15	3/8/16	9/28/16	3/20/17	9/18/17	3/15/18	06/11/18	09/19/18	03/18/19	9/25/19	3/19/20	9/24/20	3/24/21	9/20/21	3/16/22	
COCs		5th Year O&M (ISB)		6th Year (ISB)			7th Year (ISB)		8th Year (ISB)		9th Year (ISB) O&M (ISB)			10th Year		11th Year		12th Year			
1,1,2,2-Tetrachloroethane	13.6	dry	120	630	22	360	950	dry	350	0.21 J	24	< 1	< 1	2.2	dry	20	< 1	76	< 1	23	
1,1,2-Trichloroethane	50.2	dry	2.1	2.1	< 1.0	2.0	3.2	dry	2.7	1.5	10	< 1	< 1	0.79 J	dry	8.3	< 1	11	< 1	2.1	
Chloroform	986	dry	1.2	2.0	0.26 J	0.73 J	1.3	dry	0.43 J	0.21 J	< 1	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1	
Tetrachloroethene	4.43	dry	0.76 J	2.7	0.6 J	0.74 J	2.3	dry	1.2	< 1	< 1	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 0.5	< 0.5	
Trichloroethene	205	dry	86	230	47	47	180	dry	51	0.83 J	7.5	< 1	< 1	< 1	dry	3.4	< 1	6.2	2.1	1.6	
Degradation Products																					
1,1-Dichloroethene	4800	dry	< 1.0	0.42 J	< 1.0	< 1.0	< 1.0	dry	< 1.0	0.22 J	< 1	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1 (UJ)	
1,2-Dichloroethane	30.8	dry	< 1.0	< 1.0	< 1.0	0.82 J	< 1.0	dry	< 1.0	1.4	22	3 *	0.81 J	4.3	dry	0.94 J	< 1	< 1	< 1	< 1	
Chloroethane	955	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2	< 2	0.71 J	< 5	< 5	< 5	dry	< 5	< 5	< 5	< 5	< 5	
Chloromethane	216	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2	< 2	< 2	< 1	< 1	< 1	dry	< 1	< 1	< 1	< 1	< 1	
Cis-1,2-Dichloroethene	991	dry	17	400	59	38	6	dry	12	280	9.9	< 1	< 1	5.3	dry	3.5	< 1	1.7	2	< 1	
Methylene chloride	375	dry	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	dry	< 2	0.6 J	< 2	< 5	< 5	< 5	dry	< 5	< 5	< 5	< 5	< 5	
Trans-1,2-Dichloroethene	1,950	dry	< 1.0	6.7	14	26	0.50 J	dry	3.9	10	5.1	3.1 *	5.8	33	dry	4.4	2.1	2.1	3.2	< 1	
Vinyl chloride	3.86	dry	< 0.8	1.9	10	14	0.33 J	dry	3	94	5.7	< 1	< 1	14	dry	4	< 1	0.73 J	2.7	< 1	

VOCs (µg/L)	GS RBTL	CWM-183-MW09	
		9/19/22	3/15/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	dry	58
1,1,2-Trichloroethane	50.2	dry	4.3
Chloroform	986	dry	< 1
Tetrachloroethene	4.43	dry	< 0.5
Trichloroethene	205	dry	3.6
Degradation Products			
1,1-Dichloroethene	4800	dry	< 1
1,2-Dichloroethane	30.8	dry	< 1
Chloroethane	955	dry	< 5
Chloromethane	216	dry	< 1
Cis-1,2-Dichloroethene	991	dry	< 1
Methylene chloride	375	dry	< 5
Trans-1,2-Dichloroethene	1,950	dry	< 1
Vinyl chloride	3.86	dry	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW11 (Bedrock)																			
		2/14/03	10/10/05	11/5/07	2/3/10	4/1/10	6/7/10	9/7/10	12/6/10	3/8/11	9/14/11	3/20/12	6/20/12	9/20/12	12/13/12	3/28/13	6/13/13	9/25/13	12/17/13	3/26/14	
COCs		Historical			Baseline/1st Year O&M (SVE)					2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)					
1,1,2,2-Tetrachloroethane	13.6	11	0.37 J	< 1.0	75	11	1.1	2	7.8	5.9	2.5	3.4	0.85 J	3.7	0.26 J	25	9.4	11	2.6	2.8	
1,1,2-Trichloroethane	50.2	0.75 J (J)	0.45 J	< 1.0	0.98 J	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.65 J	0.3 J	0.41 J	< 1.0	< 1.0	
Chloroform	986	1.3	0.56 J	0.3 J	8.4	1.5	0.4 J	0.28 J	0.39 J	0.62 J	0.53 J	0.96 J	0.38 J	0.34 J	< 1.0	1.8	0.76 J	1.1	0.47 J	0.34 J	
Tetrachloroethene	4.43	27	0.93 J	< 1.0	2.1	0.7 J	0.26 J	< 1.0	0.8 J	0.53 J	0.34 J	0.47 J	0.28 J	0.38 J	< 1.0	0.7 J	0.41 J	0.44 J	0.25 J	0.34 J	
Trichloroethene	205	290	83	19	280	75	25	17	37	98	26	39	23	19	10	76	46	59	25	29	
Degradation Products																					
1,1-Dichloroethene	4800	0.24 J (J)	< 1.0	< 1.0	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	0.2 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	5.4	3.9	0.47 J	8.1	2.1	0.57 J	0.36 J	0.58 J	1.7	2.2	2.4	1.2	< 1.0	< 1.0	3.3	1.2	1.6	0.6 J	0.47 J	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	0.3 J (J)	< 1.0	< 1.0	1.3	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	0.49 J	0.57 J	0.24 J	< 1.0	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	0.7 J	14	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW11 (Bedrock)																				
		6/11/14	9/9/14	12/15/14	3/2/15	6/2/15	8/31/15	12/13/15	3/2/16	9/23/16	3/16/17	9/13/17	3/15/18	09/18/18	03/12/19	10/2/19	3/19/20	9/24/20	3/24/21	9/18/21	3/16/22	
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		8th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	4.0	2.5	1.8	6.0	1.5	0.85 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1	0.61 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	0.31 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	986	0.35 J	0.4 J	0.38 J	1.2	0.71 J	0.62 J	< 1.0	0.28 J	< 1.0	< 1.0	< 1	0.56 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	4.43	0.41 J	0.26 J	0.27 J	0.8 J	< 1.0	< 1.0	< 1.0	< 1.0	0.23 J	< 1.0	< 1 (UJ)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5	
Trichloroethene	205	30	30	24	71	16	15	3.6	22	11	2.3	0.58 J	1.1	0.71 J	11	< 1	43	2.7	49	9.8	52	
Degradation Products																						
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 (UJ)
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.47 J	0.21 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	0.84 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	0.47 J	0.49 J	0.42 J	2.5	8.4	7.9	4.5	6.1	2.3	1.7	2.2	9	< 1	2.2	< 1	6.9	1.9	4.2	2.6	2.9	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2 U [^] (UB)	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	0.22 J	< 1.0	< 1.0	0.75 J	0.22 J	< 1.0	< 1.0	< 1.0	0.64 J	0.93 J	4.7	1.9	0.97 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	5.1	< 0.8	6.8	11	10	22	< 1	2.8	< 1	2.5	2	0.88 J	2.3	< 1	

VOCs (µg/L)	GS RBTL	CWM-183-MW11	
		9/21/22	3/20/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	0.46 J
Trichloroethene	205	5.8	51
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1 (UJ)
Cis-1,2-Dichloroethene	991	3.8	3.7
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	3.6	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW13 (Bedrock)																			
		2/26/03	5/27/04	10/10/05	11/6/07	2/3/10	4/1/10	6/7/10	9/7/10	12/7/10	3/8/11	9/14/11	3/20/12	6/21/12	9/18/12	12/12/12	3/27/13	6/12/13	9/25/13	12/16/13	3/25/14
COCs		Historical				Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)			
1,1,2,2-Tetrachloroethane	13.6	47	15	9	25	15	53	46	51	53	74	120	61	80	43	63	66	89	55	46	
1,1,2-Trichloroethane	50.2	0.31 E (J)	0.23 J	<1.0	1	0.23 J	0.68 J	0.83 J	1.2	1.4	1.1	1.4	1.2	0.82 J	1.3	1.7	0.76 J	0.99 J	0.64 J	0.76 J	0.53 J
Chloroform	986	0.96 J (J)	0.97 J	0.7 J	4.7	0.71 J	2.8	3	4.2	5.5	3.1	4.1	3.1	1.3	3.1	0.97 J	2.7	3.2	2	2.1	1.9
Tetrachloroethene	4.43	5.1	1.4	1.2	3.9	1.1	3.6	2	2.5	3.8	4.3	4	6.3	2.5	6	6.7	5.4	8.1	5	4.1	4.9
Trichloroethene	205	390	150	120	430	110	340	250	320	480	610	500	810	920	800	820	530	840	520	460	510
Degradation Products																					
1,1-Dichloroethene	4800	1.9	<1.0	<1.0	0.28 J	<1.0	0.5 J	0.26 J	0.36 J	0.41 J	0.81 J	0.62 J	1.8	0.38 J	1.6	0.59 J	0.72 J	1.5	0.61 J	0.54 J	0.65 J
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	955	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	216	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cis-1,2-Dichloroethene	991	10	4.4	2.5	8.4	5.7	9.2	9.2	10	23	13	12	11	7.3	15	11	7.6	11	7.3	9.1	6.5
Methylene chloride	375	0.49 J (B)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trans-1,2-Dichloroethene	1,950	4.6	0.77 J	0.73 J	0.98 J	0.78 J	1.7	1.1	1.1	1	3.1	2.1	4	1.2	3.5	2.2	2.2	3	1.6	2.1	1.6
Vinyl chloride	3.86	<1.0	<1.0	<1.0	<1.0	<0.8	<0.8	<0.8	<0.8	<0.8	0.24 J	<0.8	<0.8	<0.8	<0.8	0.22 J	<0.8	<0.8	0.31 J	0.22 J	<0.8

VOCs (µg/L)	GS RBTL	CWM-183-MW13 (Bedrock)																			
		6/11/14	9/10/14	12/11/14	2/24/15	6/1/15	8/26/15	12/1/15	3/1/16	9/26/16	3/15/17	9/14/17	3/14/18	09/19/18	03/12/19	9/26/19	3/18/20	9/26/19	3/18/20	9/23/20	3/23/21
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	52	62	40	13	0.76 J	<1.0	<1.0	0.28 J	<1.0	<1.0	2	2.2	<5	5.0	<5	7.7	<5	7.7	<1	5.6
1,1,2-Trichloroethane	50.2	0.84 J	1.1	1.5	0.44 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<5	<5	<5	<5	<5	<5	<1	<1
Chloroform	986	2.1	0.97 J	0.91 J	1.3	0.83 J	<1.0	<1.0	<1.0	<1.0	<1.0	0.33 J	0.28 J	<5	<5	<5	<5	<5	<5	<1	<1
Tetrachloroethene	4.43	4.7	4.1	4.7	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.9	2.3	<5	4.4 J	7.2 B	12	7.2 B	12	<1	3.2
Trichloroethene	205	530	300	460	98	12	2.2	0.42 J	14	0.96 J	110	1700	390	310 F1 (JM)	860 F1 (JM)	38	850	38	850	250	1100
Degradation Products																					
1,1-Dichloroethene	4800	0.84 J	0.33 J	0.46 J	1.2	1.5	<1.0	<1.0	<1.0	<1.0	8.2	27	8.4	9 (JS)	8.4	1.9 J	15	1.9 J	15	11	14
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38 J	<1.0	<1.0	<1.0	<1	<1	<5	<5	<5	<5	<5	<5	<1	<1
Chloroethane	955	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<25	<25	<25	<25 *	<25	<25 *	<5	<5
Chloromethane	216	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<1	<1
Cis-1,2-Dichloroethene	991	7.3	7.7	9.2	310	490	0.88 J	0.62 J	15	1.3	110	570	200	370 (JS)	290 F1 (JM)	92 B	180	92 B	180	170	120
Methylene chloride	375	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<25	<25	<25	<25	<25	<25	<5	<5
Trans-1,2-Dichloroethene	1,950	1.8	1.8	1.8	2.4	3.9	0.82 J	1.5	1.9	2.1	9	24	8.6	17 (JS)	12	6.2	15	6.2	15	13	13
Vinyl chloride	3.86	<0.8	0.28 J	0.29 J	2.4	50	80	3.8	6.2	4.1	38	32	31	76 (JS)	36	56	30	56	30	80	21

VOCs (µg/L)	GS RBTL	CWM-183-MW13		CWM-183-MW13	
		9/18/21	3/16/22	9/20/22	3/20/23
COCs		12th Year O&M (ISB)			
1,1,2,2-Tetrachloroethane	13.6	0.98 J	<10	<1	5.9
1,1,2-Trichloroethane	50.2	<1	<10	<1	<1
Chloroform	986	<1	<10	<1	0.32 J
Tetrachloroethene	4.43	3.6	<5	<0.5	0.87
Trichloroethene	205	770	270	150	520
Degradation Products					
1,1-Dichloroethene	4800	15	3.5 J	7.9	9.3
1,2-Dichloroethane	30.8	<1	<10	<1	<1
Chloroethane	955	<5	<50	<5	<5
Chloromethane	216	<1	<10	<1	<1 (UJ)
Cis-1,2-Dichloroethene	991	200	43	130	62
Methylene chloride	375	<5	<50	<5	<5
Trans-1,2-Dichloroethene	1,950	20	4 J	7.8	6.2
Vinyl chloride	3.86	32	<10	88	8.4

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW15 (Residuum)																						
		3/4/03	11/6/07	2/3/10	4/1/10	6/8/10	9/7/10	12/8/10	3/8/11	9/14/11	3/20/12	6/21/12	9/18/12	12/12/12	3/27/13	6/12/13	9/26/13	12/17/13	3/25/14	6/10/14	9/8/14			
COCs		Historical								Baseline/1st Year O&M (SVE)				2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)			5th Year O&M (SVE)	
1,1,2,2-Tetrachloroethane	13.6	< 1.0	1.2	< 1.0	< 1.0	2.1	1.9	< 1.0	< 1.0	1.9	< 1.0	3.6	0.32 J	< 1.0	0.5 J	< 1.0	3.9	0.52 J	< 1.0	< 1.0	6.2			
1,1,2-Trichloroethane	50.2	< 1.0	0.31 J	< 1.0	< 1.0	< 1.0	0.23 J	< 1.0	< 1.0	0.22 J	< 1.0	0.21 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.23 J			
Chloroform	986	2.6	1.9	0.55 J	0.45 J	0.59 J	1.5	1.5	0.8 J	1.6	0.69 J	1.4	0.69 J	0.81 J	0.5 J	0.46 J	0.83 J	0.62 J	0.37 J	0.31 J	1.4			
Tetrachloroethene	4.43	< 1.0	0.74 J	< 1.0	< 1.0	0.37 J	0.44 J	0.27 J	< 1.0	0.38 J	< 1.0	0.5 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.4 J			
Trichloroethene	205	25	120	8.1	10	14	63	59	15	56	16	87	24	30	8.4	7.7	23	15	7.8	6.9	71			
Degradation Products																								
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
Chloroethane	955	< 1.0	< 2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0			
Chloromethane	216	< 1.0 (UJ)	< 2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0			
Cis-1,2-Dichloroethene	991	0.23 J (J)	1.3	< 1.0	< 1.0	< 1.0	1	1.1	< 1.0	< 1.0	< 1.0	0.91 J	0.35 J	0.81 J	< 1.0	< 1.0	0.33 J	0.22 J	< 1.0	< 1.0	1.3			
Methylene chloride	375	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0			
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
Vinyl chloride	3.86	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8			

VOCs (µg/L)	GS RBTL	CWM-183-MW15 (Residuum)																			
		12/11/14	3/2/15	5/29/15	8/27/15	12/9/15	3/1/16	9/27/16	3/20/17	9/13/17	3/13/18	6/12/18	09/18/18	03/13/19	9/23/19	3/18/20	9/23/20	3/23/21	9/16/21	3/16/22	
COCs		5th Year O&M (ISB)			6th Year O&M (ISB)			Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)			Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	2.8	0.33 J	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
1,1,2-Trichloroethane	50.2	0.25 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Chloroform	986	1.3	0.54 J	0.69 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tetrachloroethene	4.43	0.3 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.22 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5	
Trichloroethene	205	52	16	15	2.2	6.9	4.6	4.4	2.8	42	2.1	2.0	3.0	2.7	1.8	0.80 J	2.8	0.67 J	2	< 1	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	0.67 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 (UJ)	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	0.33 J	0.44 J	0.34 J	< 1.0	< 1.0	< 1.0	0.32 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	0.36 J	< 2	< 2	< 5	< 5	< 5	< 5	< 5	3.4 J	< 5	< 5	< 5	
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Cis-1,2-Dichloroethene	991	1.2	0.34 J	270	23	26	9.9	2.9	1.6	20	1.2	0.8 J	1.8	0.81 J	1.7	0.71 J	2.7	< 1	2.2	< 1	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	1.6	1.0	0.69 J	< 1.0	2.3	0.93 J	1.8	0.56 J	1.4 *	2.6	0.37 J	4.3	0.47 J	5.3	< 1	1.6	< 1	
Vinyl chloride	3.86	< 0.8	< 0.8	7.1	27	22	1.6	2.7	2.1	11	0.68 J	1.2	2.2	< 1	1.4	< 1	3.3	< 1	1.9	< 1	

VOCs (µg/L)	GS RBTL	CWM-183-MW15	
		9/20/22	3/20/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	1.3	0.92 J
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1 (UJ)
Cis-1,2-Dichloroethene	991	3.1	0.76 J
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	1.3	< 1
Vinyl chloride	3.86	1.6	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW16 (Bedrock)																			
		3/3/03	5/27/04	11/6/07	2/3/10	4/1/10	6/8/10	9/7/10	12/8/10	3/8/11	9/14/11	3/20/12	6/21/12	9/18/12	12/12/12	3/27/13	6/12/13	9/26/13	12/17/13	3/25/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	0.65 J	0.52 J	4.6	0.53 J	0.82 J	0.24 J	0.34 J	< 1.0	1.1	< 1.0	0.24 J	0.22 J	< 1.0	0.37 J	0.86 J	0.73 J	
1,1,2-Trichloroethane	50.2	0.6 J (J)	0.42 J	< 1.0	0.45 J	0.44 J	0.51 J	0.51 J	0.5 J	0.42 J	0.44 J	0.5 J	0.45 J	0.39 J	0.43 J	0.41 J	0.36 J	0.39 J	0.34 J	0.42 J	
Chloroform	986	9.6	1.9	0.42 J	3.6	3.4	4.3	3.8	3.3	3.1	3.6	3.3	2.9	3.3	3.2	3.1	2.7	2.9	2.8	3.2	
Tetrachloroethene	4.43	0.92 J (J)	0.53 J	0.37 J	0.71 J	0.56 J	0.72 J	0.41 J	0.58 J	0.31 J	0.49 J	0.78 J	0.66 J	0.57 J	0.68 J	0.7 J	0.5 J	0.39 J	0.65 J	0.46 J	
Trichloroethene	205	180	170	150	150	140	140	79	160	87	130	170	190	170	170	140	93	110	120	130	
Degradation Products																					
1,1-Dichloroethene	4800	0.42 J (J)	0.41 J	0.53 J	0.2 J	< 1.0	< 1.0	0.24 J	0.22 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 1 (UJ)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	1.6 (J)	1.3	2	2	1.9	2.4	42	31	3.6	3.3	4.2	3.1	3.2	2.9	2.9	2.6	5.7	3.3	2.7	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	0.97	14	0.32 J	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW16 (Bedrock)																			
		6/10/14	9/8/14	12/11/14	3/2/15	5/29/15	8/27/15	12/7/15	3/1/16	9/27/16	3/16/17	9/13/17	3/13/18	9/18/18	3/13/19	9/24/19	3/18/20	9/23/20	3/23/21	9/16/21	3/15/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	0.51 J	0.63 J	0.51 J	0.32 J	0.2 J	0.48 J	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	50.2	0.32 J	0.37 J	0.49 J	0.38 J	0.29 J	0.41 J	0.24 J	0.23 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	986	2.6	3.1	3.3	2.8	2.4	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	4.43	0.4 J	0.28 J	0.49 J	0.31 J	< 1.0	0.41 J	0.23 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.82 J	< 0.5	< 0.5
Trichloroethene	205	110	100	140	99	67	66	49	55	33	32	1.8	24	12	10	16	7.1	3.8	11	7	5.1
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.43 J	1 U^ (UB)	0.32 J	0.25 J	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 (UJ)
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.25 J	0.29 J	0.3 J	0.32 J	< 1.0	0.29 J	< 1.0	< 1.0	0.53 J	0.52 J	0.81 J	1.0 (UB)	0.48 J	< 1.0
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	1.1 J	0.62 J	< 5	< 5	3.0 J	3.0 J*	5.7	6.1	6.1	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,2-Dichloroethene	991	1.9	3.8	4.0	4.6	9.4	130	140	82	38	28	0.97 J	20	8.7	7.8	9.1	7	4	9.2	7.4	4.5
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.57 J	0.61 J	0.74 J	0.9 J	1.1	3	2.4	2.2	2.2	6.3	4.2	6.4	5.8	6.4	4.8
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	7.4	9.6	16	24	35	2.3	8.7	8.9	6.2	9.4	10	10	10	10	15

VOCs (µg/L)	GS RBTL	CWM-183-MW16	
		9/20/22	3/20/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1 (UJ)	< 1
1,1,2-Trichloroethane	50.2	< 1 (UJ)	< 1
Chloroform	986	< 1 (UJ)	< 1
Tetrachloroethene	4.43	< 0.5 (UJ)	< 0.5
Trichloroethene	205	3.6	3.9
Degradation Products			
1,1-Dichloroethene	4800	< 1 (UJ)	< 1
1,2-Dichloroethane	30.8	0.39 J (J)	0.32 J
Chloroethane	955	4.7 J (J)	< 5
Chloromethane	216	< 1 (UJ)	< 1 (UJ)
Cis-1,2-Dichloroethene	991	6.6	4.5
Methylene chloride	375	< 5 (UJ)	< 5
Trans-1,2-Dichloroethene	1,950	5.2	5.3
Vinyl chloride	3.86	7.7	7

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW17 (Bedrock)																			
		2/27/03	5/25/04	11/6/07	2/3/10	3/31/10	6/9/10	9/8/10	12/8/10	3/10/11	9/15/11	3/19/12	6/21/12	9/19/12	12/14/12	3/26/13	6/13/13	9/26/13	12/16/13	3/26/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	0.73 J	< 1.0	< 1.0	0.9 J	2.6	2.3	< 1.0	1.4	0.27 J	0.45 J	0.28 J	0.27 J	< 1.0	2.4	1.6	< 1.0	0.66 J	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	0.38 J	< 1.0	< 1.0	< 1.0	0.47 J	0.41 J	< 1.0	0.42 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform	986	0.68 J (J)	0.56 J	1.3	< 1.0	0.37 J	0.75 J	1.7	1.5	0.27 J	1.7	0.52 J	< 1.0	0.43 J	0.34 J	0.2 J	< 1.0	< 1.0	< 1.0	0.45 J	
Tetrachloroethene	4.43	0.32 J (J)	0.3 J	0.51 J	< 1.0	0.24 J	0.54 J	0.81 J	0.77 J	< 1.0	0.91 J	0.33 J	< 1.0	0.24 J	0.23 J	< 1.0	< 1.0	< 1.0	< 1.0	0.3 J	
Trichloroethene	205	100	71	130	16	42	60	110	130	23	130	47	43	53	54	20	14	13	14	40	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	1.2	0.61 J	9.6	1.2	2.3	3.9	4.2	7.8	7.6	5.3	4	12	17	19	8.8	10	17	16	3.3	
Methylene chloride	375	0.49 J (B)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	0.44 J (J)	0.29 J	0.26 J	< 1.0	< 1.0	< 1.0	0.24 J	0.22 J	< 1.0	0.23 J	< 1.0	< 1.0	0.21 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	0.29 J	0.2 J	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW17 (Bedrock)																			
		6/10/14	9/9/14	12/10/14	2/27/15	5/29/15	9/1/15	12/7/15	3/1/16	9/27/16	3/16/17	9/13/17	3/13/18	09/18/18	03/13/19	9/23/19	3/18/20	9/22/20	3/22/21	9/16/21	3/15/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	1.3	< 1.0	2.2	1.7	< 1.0	< 1.0	0.29 J	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	0.25 J	< 1.0	0.24 J	0.3 J	< 1.0	< 1.0	0.2 J	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Chloroform	986	< 1.0	< 1.0	0.5 J	< 1.0	1.1	1.1	0.26 J	0.22 J	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tetrachloroethene	4.43	< 1.0	< 1.0	0.21 J	< 1.0	0.53 J	0.6 J	< 1.0	< 1.0	0.23 J	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 0.5	
Trichloroethene	205	6.5	13	57	19	84	84	18	15	48	12	8	6.5	4.3	5.1	3.8	5	1.8	1.5	17	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.5 (UB)	< 1	
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Cis-1,2-Dichloroethene	991	12	12	18	20	9.2	22	17	11	16	4.2	2.6	1.9	0.72 J	0.73 J	0.53 J	0.86 J	0.49 J	1.8	3.2	
Methylene chloride	375	< 2.0	2 U [^] (UB)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	0.36 J	0.27 J	0.36 J	0.49 J	0.31 J	0.26 J	0.44 J	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.52 J	0.84 J	
Vinyl chloride	3.86	0.91	3.4	2.5	0.88	3.6	9.1	7.7	4.8	12	5.2	1.8	0.47 J	< 1	11	2.4	2.9	10	10	4.4	

VOCs (µg/L)	GS RBTL	CWM-183-MW17	
		9/21/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	25	5.2
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1 (UJ)
Cis-1,2-Dichloroethene	991	6.7	0.43 J
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	1.6	< 1
Vinyl chloride	3.86	2.8	0.73 J

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW19 (Bedrock)																			
		3/5/03	5/24/04	9/30/05	2/4/10	3/31/10	6/8/10	9/8/10	12/7/10	3/8/11	9/15/11	3/19/12	6/19/12	9/18/12	12/14/12	3/26/13	6/13/13	9/26/13	12/16/13	3/27/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.4	1.3	0.41 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	22	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.41 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trichloroethene	205	< 1.0	< 1.0	< 1.0	0.69 J	< 1.0	11	2.7	2.7	0.37 J	0.71 J	< 1.0	< 1.0	0.7 J	0.85 J	< 1.0	4.8	0.21 J	0.47 J	< 1.0	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 1 (UJ)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	< 1 (UJ)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW19 (Bedrock)																			
		6/10/14	9/9/14	12/9/14	2/27/15	5/28/15	8/25/15	12/3/15	2/29/16	9/28/16	3/16/17	9/15/18	3/13/18	09/17/18	03/12/19	9/25/19	3/17/20	9/23/20	3/22/21	9/15/21	3/14/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 5
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.5	< 0.5
Trichloroethene	205	< 1.0	0.25 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.7 (UB)	< 1.0	< 1.0
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

VOCs (µg/L)	GS RBTL	CWM-183-MW19	
		9/20/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	< 1	< 1
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1	< 1
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	< 1	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW20 (Bedrock)																			
		3/7/03	11/6/07	2/4/10	3/31/10	6/8/10	9/8/10	12/7/10	3/8/11	9/13/11	3/20/12	6/20/12	9/19/12	12/12/12	3/28/13	6/12/13	9/24/13	12/17/13	3/27/14		
COCs		Historical				Baseline/1st Year O&M (SVE)				2nd Year O&M (SVE)				3rd Year O&M (SVE)				4th Year O&M (SVE)			
1,1,2,2-Tetrachloroethane	13.6	18	< 1.0	0.45 J	0.21 J	< 1.0	1.1	< 1.0	< 1.0	1.1	0.91 J	< 1.0	< 1.0	< 1.0	1.2	0.73 J	0.64 J	2.7	0.85 J		
1,1,2-Trichloroethane	50.2	2.4	0.89 J	1.1	1.6	1.3	1.1	1.3	1.3	1.2	1.3	1.2	1.4	1.1	0.85 J	0.66 J	0.86 J	0.63 J	0.66 J		
Chloroform	986	4.4	1.3	1.1	1.9	1.2	1.2	1.4	1.6	1.9	1.3	0.98 J	1.3	1.2	0.52 J	0.43 J	0.47 J	0.39 J	0.4 J		
Tetrachloroethene	4.43	28	6.6	4	10	3.9	2.6	4.7	7.6	10	7.4	4.4	6.1	5.1	1	1.1	1.5	1.3	1.2		
Trichloroethene	205	3700	940	610	1,400	630	530	810	1000	1300	940	1100	940	1300	270	180	220	170	170		
Degradation Products																					
1,1-Dichloroethene	4800	0.85 J (J)	1	0.91 J	0.89 J	0.89 J	0.91 J	1.8	1.4	1.4	1.2	0.69 J	1.5	1.1	0.63 J	0.37 J	0.68 J	0.51 J	0.73 J		
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
Chloromethane	216	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
Cis-1,2-Dichloroethene	991	8.5	9.2	11	12	15	15	60	21	19	30	21	17	32	12	8.6	12	9.9	12		
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
Trans-1,2-Dichloroethene	1,950	1.2	0.76 J	0.94 J	1	1	0.82 J	1.1	1	1.1	1.1	0.84 J	1.1	0.95 J	0.61 J	0.46 J	0.59 J	0.47 J	0.63 J		
Vinyl chloride	3.86	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	2.5	26	< 0.8	1.1	0.34 J	0.39 J	2.3	3.1	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8		

VOCs (µg/L)	GS RBTL	CWM-183-MW20 (Bedrock)																			
		6/11/14	9/9/14	12/11/14	2/26/15	6/2/15	8/25/15	12/2/15	3/7/16	9/27/16	3/16/17	9/14/17	3/14/18	09/17/18	03/13/19	9/25/19	3/18/20	9/23/21	3/23/21	9/17/21	3/15/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	1.5	< 1.0	1.8	0.34 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	50.2	0.49 J	0.64 J	0.87 J	1.3	0.66 J	0.44 J	< 1.0	0.39 J	< 1.0	< 1.0	< 1	0.21 J	< 1	0.49 J	< 1	0.37 J	< 1	0.40 J	< 1	< 1
Chloroform	986	0.33 J	0.45 J	0.77 J	1.4	0.32 J	< 1.0	< 1.0	0.21 J	< 1.0	< 1.0	< 1	< 1	< 1	0.56 J	< 1	< 1	< 1	0.54 J	< 1	0.29 J
Tetrachloroethene	4.43	1.1	1.4	2.3	0.22 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	0.32 J	< 1	1.5	< 1	2.2	< 1	6.9	0.53	3
Trichloroethene	205	150	210	370	12	0.29 J	< 1.0	4.8	1.3	0.59 J	7.8	0.88 J	33	< 1	150	0.90 J	120	9.3	670	33	300
Degradation Products																					
1,1-Dichloroethene	4800	0.42 J	0.73 J	1.0	2.7	0.51 J	0.94 J	0.71 J	0.69 J	< 1.0	0.44 J	0.52 J	1.3	< 1	4.1	< 1	3.8	3.9	12	6.9	8.6
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.31 J	0.34 J	0.26 J	< 1.0	< 1.0	< 1	0.24 J	< 1	< 1	< 1	< 1	< 1	1.4	< 1	< 1
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	5.2	< 5	2.7 J *	10	15	9.3	4.9 J
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	7.9	12	14	1300	170	600	240	140	2	69	99	290	36	530	1.4	250 *	130	490	340	290
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	0.43 J	0.63 J	0.76 J	3.9	1.2	3.6	4.0	1.9	0.68 J	4.1	3.3	2.7	< 1	4.1	0.90 J B	2.7	3.3	5.7	4.2	4.2
Vinyl chloride	3.86	< 0.8	2.7	1.2	3.1	210	560	320	100	1.6	88	130	84	36	140	1.7	98	140	150	170	130

VOCs (µg/L)	GS RBTL	CWM-183-MW20	
		9/20/22	3/15/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	0.42 J
Chloroform	986	< 1	0.34 J
Tetrachloroethene	4.43	< 0.5	6.1
Trichloroethene	205	2.9	490
Degradation Products			
1,1-Dichloroethene	4800	0.98 J	7.1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	43	170
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	0.59 J	5.5
Vinyl chloride	3.86	29	66

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW21 (Residuum)																			
		2/10/03	10/4/05	11/5/07	2/4/10	3/31/10	6/7/10	9/8/10	12/6/10	3/8/11	9/13/11	3/21/12	6/20/12	9/20/12	12/12/12	3/27/13	6/13/13	9/25/13	12/17/13	3/26/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	4.8	2.9	<1.0	4.2	7.7	4.3	5	1.1	0.63 J	0.74 J	1.8	0.61 J	0.52 J	0.22 J	0.41 J	6.1	2.3	1.3	5	
1,1,2-Trichloroethane	50.2	1.5	1.6	0.92 J	0.85 J	1.1	1.3	1	1.1	0.72 J	0.97 J	1.2	1.1	1.2	0.83 J	0.2 J	0.85 J	1.1	0.71 J	0.74 J	
Chloroform	986	0.49 J (J)	0.55 J	0.37 J	0.3 J	0.33 J	0.43 J	0.35 J	0.39 J	0.29 J	0.38 J	0.42 J	0.31 J	0.43 J	0.3 J	<1.0	0.28 J	0.31 J	0.28 J	0.26 J	
Tetrachloroethene	4.43	3.3	3.3	2.9	1.7	2.4	2.6	2.4	2.8	2.4	2.4	1.9	2.4	2.9	2.3	1.3	1.5	2.1	1.9	2	
Trichloroethene	205	410	430	390	190	260	280	250	330	310	260	230	360	330	340	140	200	240	190	220	
Degradation Products																					
1,1-Dichloroethene	4800	1.2	1.1	1.4	0.47 J	0.51 J	0.71 J	0.8 J	1.0	0.78 J	0.94 J	0.58 J	0.73 J	1.1	1	0.57 J	0.36 J	0.41 J	0.44 J	0.4 J	
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane	955	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Chloromethane	216	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Cis-1,2-Dichloroethene	991	69	40	40	22	25	32	30	41	24	34	18	37	42	43	16	16	22	17	20	
Methylene chloride	375	0.53 J (B)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Trans-1,2-Dichloroethene	1,950	8.1	4.3	3.6	1.8	2.1	3	2.7	3.7	2.2	2.7	1.6	2.3	2.9	2.8	1.9	1.2	1.6	1.4	1.6	
Vinyl chloride	3.86	0.58 J (J)	<1.0	0.23 J	0.27 J	1.7	0.27 J	0.92	1.1	0.33 J	0.61 J	<0.8	0.46 J	0.35 J	0.99	<0.8	0.25 J	0.64 J	<0.8	0.25 J	

VOCs (µg/L)	GS RBTL	CWM-183-MW21 (Residuum)																				
		6/11/14	9/8/14	12/9/14	2/26/15	6/3/15	8/27/15	12/2/15	3/4/16	9/28/16	3/16/17	9/15/17	3/14/18	09/20/18	03/18/19	10/2/19	3/18/20	9/22/20	3/23/21	9/18/21	3/14/22	
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)			
1,1,2,2-Tetrachloroethane	13.6	2.3	1.4	0.99 J	0.77 J	0.49 J	<1.0	<1.0	0.21 J	<1.0	<1.0	<1	<1	0.70 J	0.7 J	<1	<1	<1	<1	<1	<1	
1,1,2-Trichloroethane	50.2	0.59 J	0.86 J	0.88 J	0.72 J	0.4 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloroform	986	0.23 J	0.3 J	0.28 J	0.23 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tetrachloroethene	4.43	1.5	1.0	1.5	0.59 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	0.81 J	<1	<0.5	<0.5
Trichloroethene	205	150	150	180	46	3.0	3.0	12	3.7	1.4	11	0.99 J	2.8	1.1	2.2	2.9	12	1.3	9.9	1.5	5.3	
Degradation Products																						
1,1-Dichloroethene	4800	0.34 J	0.36 J	0.47 J	0.69 J	0.55 J	0.25 J	0.24 J	0.22 J	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
1,2-Dichloroethane	30.8	<1.0	<1.0	<1.0	<1.0	0.24 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	2.5 (UB)	<1	<1
Chloroethane	955	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	0.36 J	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloromethane	216	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethene	991	17	20	22	180	180	55	37	29	0.7 J	8.7	2.6	7.2	1.5	3.4	4.5	4	0.82 J	4.2	1.9	5.3	
Methylene chloride	375	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	1,950	1.3	1.5	1.6	2.2	2.3	1.7	1.9	2.3	1.2	1.6	1.5	1	1.6	1.0	1.4	0.69 J	<1	0.68 J	0.37 J	0.57 J	
Vinyl chloride	3.86	0.32 J	0.84	0.35 J	0.34 J	13	28	15	23	1.3	5.9	4.4	10	4.0	3.4	4.4	6.1	1.3	4	2.8	10	

VOCs (µg/L)	GS RBTL	CWM-183-MW21	
		9/20/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	<1	<1
1,1,2-Trichloroethane	50.2	<1	<1
Chloroform	986	<1	<1
Tetrachloroethene	4.43	<0.5	<0.5
Trichloroethene	205	1.1	6.9
Degradation Products			
1,1-Dichloroethene	4800	<1	<1
1,2-Dichloroethane	30.8	<1	<1
Chloroethane	955	<5	<5
Chloromethane	216	<1	<1
Cis-1,2-Dichloroethene	991	0.73 J	6.3
Methylene chloride	375	<5	<5
Trans-1,2-Dichloroethene	1,950	<1	0.97 J
Vinyl chloride	3.86	1.3	6.6

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW22 (Bedrock)																			
		2/12/03	10/4/05	11/5/07	2/4/10	3/31/10	6/7/10	9/8/10	12/6/10	3/8/11	9/13/11	3/21/12	6/20/12	9/20/12	12/12/12	3/27/13	6/13/13	9/25/13	12/17/13	3/26/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	42 J (J)	< 1.0	< 1.0	< 1.0	< 1.0	2.1	5.5	0.52 J	0.59 J	4.3	0.26 J	2.7	1.1	1.4	3.5	4.1	0.94 J (ISA)	0.24 J	0.39 J	
1,1,2-Trichloroethane	50.2	5.5	< 1.0	< 1.0	0.29 J	< 1.0	0.69 J	1.5	1.6	0.38 J	< 1.0	< 1.0	1.5	0.96 J	1.1	0.76 J	0.49 J	0.94 J (ISA)	0.21 J	0.26 J	
Chloroform	986	0.75 J (J)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.24 J	< 1.0	0.28 J	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	4.43	8.7	1.2	1.3	1.1	1.9	1.8	2.3	1.5	1.9	1.7	1.5	2.4	2.3	2.5	1.8	1.1	0.9 J (JSA)	1.3	1.0	
Trichloroethene	205	1100 (J)	170	240	160	190	210	280	300	250	200	190	420	350	510	170	150	140	140	140	
Degradation Products																					
1,1-Dichloroethene	4800	1.7	0.6 J	1.2	0.74 J	0.87 J	0.8 J	0.91 J	0.83 J	0.91 J	0.87 J	0.82 J	0.8 J	1.2	1.2	0.36 J	0.44 J	0.48 J (JS)	0.59 J	0.45 J	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 1.0	< 2.0	0.39 J	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	77	35	41	25	24	25	32	37	28	24	22	40	48	54	18	13	20 (JS)	15	15	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	8.9	4.1	6.2	2.7	2.8	2.7	3.4	3.8	3.2	2.8	2.7	3	3.8	4.5	1.3	1.3	1.5 (JS)	1.6	1.4	
Vinyl chloride	3.86	0.88 J (J)	< 1.0	0.69 J	0.23 J	< 0.8	0.23 J	0.47 J	0.45 J	0.44 J	0.25 J	< 0.8	0.36 J	0.65 J	1.3	< 0.8	< 0.8	0.29 J (JS)	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW22 (Bedrock)																			
		6/11/14	9/8/14	12/9/14	2/26/15	6/3/15	8/27/15	12/2/15	3/4/16	9/26/16	3/15/17	9/15/17	3/14/18	09/20/18	03/18/19	10/2/19	3/18/20	9/22/20	3/23/21	9/17/21	3/15/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	0.21 J	1.7	0.25 J	0.49 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	50.2	0.29 J	0.66 J	0.2 J	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	4.43	0.94 J	0.94 J	0.67 J	< 1.0	< 1.0	< 1.0	0.23 J	0.20 J	< 1.0	0.27 J	0.5 J	0.3 J	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5
Trichloroethene	205	110	150	130	17	3.9	6.0	29	26	27	26	35	23	32	19	19	9.5	1.4	12	2.3	12
Degradation Products																					
1,1-Dichloroethene	4800	0.36 J	0.41 J	0.4 J	0.69 J	0.66 J	0.25 J	0.42 J	0.30 J	0.24 J	0.35 J	0.26 J	< 1	< 1	< 1	0.64 J (B)	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.6 (UB)	< 1	< 1
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1 *	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	12	18	16	130	140	47	51	44	35	40	24	20	14	14	96	11	3.8	13	6.3	16
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	1.1	1.5	1.5	1.5	2.5	2.7	2.4	1.4	1.3	1.9	1.6	0.97 J	1.5	0.63 J	3.1	0.58 J	0.98 J	0.87 J	0.79 J	< 1
Vinyl chloride	3.86	< 0.8	< 0.8	0.26 J	0.39 J	1.1	12	7.4	3.9	2.9	14	6.1	4	4.6	1.4	39	5.9	5.3	8.2	7	9.9

VOCs (µg/L)	GS RBTL	CWM-183-MW22	
		9/20/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	0.99 J	17
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	6.2	22
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	0.72 J	0.85 J
Vinyl chloride	3.86	8.8	5.2

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW23 (Residuum)																			
		2/5/03	10/5/05	11/7/07	2/4/10	4/1/10	6/8/10	9/7/10	12/6/10	3/10/11	9/13/11	3/21/12	6/20/12	9/20/12	12/13/12	3/27/13	6/13/13	9/25/13	12/17/13	3/27/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	740	12,000	510	7,400	72,000	58,000	28,000	16,000	110	19000	580	19000	1800	1700	390	76,000	84,000	1100	86,000	
1,1,2-Trichloroethane	50.2	0.35 J (J)	6.7	0.47 J	3.4	42	37 (JS)	17	8.8	<1	11	0.29 J	7.6 (JS)	1.4 (JS)	1.1	0.24 J	27	31	0.37 J	43 (JS)	
Chloroform	986	1.4	22	5.4	12	99	89 (JS)	46	25	0.32 J	28	0.53 J	17 (JS)	4.3 (JS)	4.9	0.51 J	23	44	0.53 J	49 (JS)	
Tetrachloroethene	4.43	7.2	110 (JS)	31	130	700	550	280	120	1.6	120	7.4	100 (JS)	17 (JS)	13	2	61	110	12	120	
Trichloroethene	205	270	3600 (JS)	1,000	2,000	19,000	17,000	8,900	4,200	81	4200	140	4000	630	620	120	3100	5300	230	5700	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	0.42 J	< 1.0	< 1.0	1.3	1.5 (JS)	< 1.0	0.29 J	< 1.0	0.31 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	0.34 J	0.39 J (JS)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 1.0	0.27 J (JS)	
Chloroethane	955	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 50	< 2.0	< 2.0	
Chloromethane	216	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 50	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	3.7	49	9.6	25	380	330	94	54	0.85 J	61	1.3	43 (JS)	7 (JS)	6.5	1.5	66	120	1.7	130	
Methylene chloride	375	0.44 J (B)	< 2.0	< 2.0	< 2.0	< 2.0	2 U [^] (UJBS)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 50	< 2.0	0.63 J (JS)	
Trans-1,2-Dichloroethene	1,950	0.57 J (J)	3.9	0.69 J	1.9	13	13 (JS)	14	3.2	< 1	3.7	< 1.0	1.9 (JS)	0.49 J (JS)	0.4 J	< 1.0	1.9	< 25	< 1.0	5.2 (JS)	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 20	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW23 (Residuum)																			
		6/12/14	9/10/14	12/16/14	3/3/15	6/4/15	9/1/15	12/9/15	3/8/16	9/28/16	3/21/17	9/18/17	3/15/18	09/20/18	03/18/19	9/26/19	3/19/20	9/24/20	3/24/21	9/20/21	3/16/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)				7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	680	54,000	18,000	560	79000	40000	3300	62,000	4200	2700	25000	21,000	26000	30000	< 500	< 500	3.2	36	50	58
1,1,2-Trichloroethane	50.2	0.34 J	27	12	0.27 J	55	22	1.3	34	20	1.5	120	120	< 500	< 500	< 500	< 500	< 1	2	0.54 J	1.3 J
Chloroform	986	0.53 J	45	20	0.4 J	62	32	2.2	43	23	1.8	42	28	< 500	< 500	< 500	< 500	2.7	< 1	1.9	2.8
Tetrachloroethene	4.43	13	86	64	8.5	130	65	19	73	65	8.5	6.2	32	< 500	< 500	780 B	< 500	< 1	< 1	< 0.5	< 1
Trichloroethene	205	350	4300	3,100	130	7000	3800	780	5,200	420	420	1900	3,200	1500	660	< 500	< 500	2.4	3.1	7	3.8
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 10	< 1.0	< 1.0	0.22 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.5 J	3.9	< 500	< 500	< 500	< 500	2.3	1.9	1.7	< 2
1,2-Dichloroethane	30.8	< 1.0	< 10	< 1.0	< 1.0	0.39 J	< 1.0	< 1.0	0.26 J	< 1.0	< 1.0	< 5	0.33 J	< 500	< 500	< 500	< 500	0.65 J	1.1	0.57 J	1.1 J
Chloroethane	955	< 2.0	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 10	< 2	< 2500	< 2500	< 2500	< 2500	< 5	< 5	< 5	< 10
Chloromethane	216	< 2.0	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 10	< 2	< 500	< 500	< 500	< 500	< 1	5.4	< 1	< 2
Cis-1,2-Dichloroethene	991	1.6	120	48	1.2	190	77	6.8	130	62	20	160	170	5600	5300	10000 B	7600	1000	2000	930	930
Methylene chloride	375	< 2.0	< 20	< 2.0	< 2.0	2 U [^] (UB)	2 U [^] (UB)	< 2.0	< 2.0	0.55 J	< 2	2.8 J	0.83 J	< 2500	< 2500	< 2500	< 2500	< 5	< 5	< 5	< 10
Trans-1,2-Dichloroethene	1,950	< 1.0	3.8 J	1.9	< 1.0	6.8	2.6	0.51 J	2.7	4.1	2.2	17	28	< 500	< 500	440 J	510	160	160	44	45
Vinyl chloride	3.86	< 0.8	< 8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	15	11	< 500	< 500	680	1900	290	710	340	530

VOCs (µg/L)	GS RBTL	CWM-183-MW23	
		9/21/22	3/20/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	9.5	33
1,1,2-Trichloroethane	50.2	< 1	< 20
Chloroform	986	1.2	< 20
Tetrachloroethene	4.43	< 0.5	< 10
Trichloroethene	205	1.5	4.9 J
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 20
1,2-Dichloroethane	30.8	0.57 J	< 20
Chloroethane	955	< 5	< 100
Chloromethane	216	< 1	< 20 (UJ)
Cis-1,2-Dichloroethene	991	170	440
Methylene chloride	375	< 5	< 100
Trans-1,2-Dichloroethene	1,950	15	72
Vinyl chloride	3.86	88	160

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW25 (Residuum)																			
		5/25/04	10/5/05	11/5/07	2/3/10	3/31/10	6/8/10	9/8/10	12/8/10	3/8/11	9/13/11	3/19/12	6/21/12	9/20/12	12/13/12	3/26/13	6/13/13	9/26/13	12/16/13	3/26/14	
COCs		Historical			Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)				
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	38	0.49 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.39 J	< 1.0	1.4	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trichloroethene	205	< 1.0	< 1.0	0.26 J	0.24 J	0.37 J	52	2.9	< 1	0.38 J	1.9	< 1.0	2	0.57 J	1.4	< 1.0	0.59 J	0.26 J	< 1.0	< 1.0	
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.2 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW25 (Residuum)																			
		6/10/14	9/9/14	12/9/14	2/26/15	5/28/15	8/25/15	12/2/15	2/29/16	9/22/16	3/15/17	9/15/17	3/13/18	09/17/18	03/12/19	9/25/19	3/17/20	9/23/20	3/22/21	9/16/21	3/14/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5
Trichloroethene	205	< 1.0	1.2	0.36 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.21 J	0.77 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.4 (UB)	< 1	< 1
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	0.45 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1 *	< 1	< 1	< 1
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2 U [^] (UB)	< 2	< 2	< 2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

VOCs (µg/L)	GS RBTL	CWM-183-MW25	
		9/20/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	< 1	< 1
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1	< 1
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	< 1	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW28 (Bedrock)																	
		10/7/05	2/3/10	4/1/10	6/9/10	9/8/10	12/7/10	3/10/11	9/15/11	3/19/12	6/19/12	9/21/12	12/13/12	3/28/13	6/11/13	9/24/13	12/16/13	3/26/14	
COCs	Historical	Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)					
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	4.9	0.54 J	0.88 J	0.47 J	< 1.0	< 1.0	< 1.0	< 1.0	0.37 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform	986	0.39 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	4.43	< 1.0	< 1.0	0.78 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trichloroethene	205	0.28 J	0.35 J	13	1.5	1.5	1.7	0.93 J	0.7 J	< 1.0	< 1.0	< 1.0	0.72 J	1.3	< 1.0	1.2	0.22 J	0.5 J	
Degradation Products																			
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	0.32 J	< 2.0	
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW28 (Bedrock)																			
		6/9/14	9/10/14	12/10/14	2/27/15	6/3/15	8/25/15	12/2/15	3/4/16	9/22/16	3/17/17	9/15/17	3/14/18	09/19/18	03/12/19	9/24/19	3/17/20	9/22/20	3/22/21	9/15/21	3/14/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.5	< 0.5
Trichloroethene	205	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.36 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.4 (UB)	< 1.0	< 1.0
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.9	< 5.0	< 5.0
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	0.42 J	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2 U [^] (UB)	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

VOCs (µg/L)	GS RBTL	CWM-183-MW28	
		9/20/22	3/14/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	< 1	< 1
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1	< 1
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	< 1	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

VOCs (µg/L)	GS RBTL	CWM-183-MW31 (Bedrock)																	
		10/6/05	2/3/10	4/1/10	6/9/10	9/8/10	12/7/10	3/10/11	9/15/11	3/19/12	6/19/12	9/21/12	12/14/12	3/29/13	6/11/13	9/26/13	12/16/13	3/27/14	
COCs	Historical	Baseline/1st Year O&M (SVE)						2nd Year O&M (SVE)			3rd Year O&M (SVE)			4th Year O&M (SVE)					
1,1,2,2-Tetrachloroethane	13.6	< 1.0	< 1.0	4.2	0.49 J	0.44 J	2.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	4.43	< 1.0	< 1.0	0.56 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trichloroethene	205	< 1.0	< 1.0	11	0.96 J	0.81 J	3.2	< 1.0	0.38 J	< 1.0	< 1.0	< 1.0	0.3 J	< 1.0	< 1.0	< 1.0	0.3 J	< 1.0	
Degradation Products																			
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl chloride	3.86	< 1.0	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	

VOCs (µg/L)	GS RBTL	CWM-183-MW31 (Bedrock)																			
		6/9/14	9/10/14	12/9/14	2/25/15	5/28/15	8/25/15	12/9/15	3/4/16	9/22/16	3/17/17	9/18/17	3/14/18	09/20/18	03/12/19	9/24/19	3/17/20	9/22/20	3/22/21	9/15/21	3/14/22
COCs		5th Year O&M (SVE)		5th Year O&M (ISB)		6th Year O&M (ISB)			7th Year O&M (ISB)		8th Year O&M (ISB)		9th Year O&M (ISB)		10th Year O&M (ISB)		11th Year O&M (ISB)		12th Year O&M (ISB)		
1,1,2,2-Tetrachloroethane	13.6	0.39 J	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	50.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	986	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	4.43	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.5	< 0.5
Trichloroethene	205	< 1.0	0.81 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.3 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Degradation Products																					
1,1-Dichloroethene	4800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	30.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.3 (UB)	< 1.0	< 1.0
Chloroethane	955	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	216	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,2-Dichloroethene	991	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	375	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2 U [^] (UB)	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans-1,2-Dichloroethene	1,950	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	3.86	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.68 J	< 1.0

VOCs (µg/L)	GS RBTL	CWM-183-MW31	
		9/20/22	3/13/23
COCs		13th Year O & M (ISB)	
1,1,2,2-Tetrachloroethane	13.6	< 1	< 1
1,1,2-Trichloroethane	50.2	< 1	< 1
Chloroform	986	< 1	< 1
Tetrachloroethene	4.43	< 0.5	< 0.5
Trichloroethene	205	< 1	< 1
Degradation Products			
1,1-Dichloroethene	4800	< 1	< 1
1,2-Dichloroethane	30.8	< 1	< 1
Chloroethane	955	< 5	< 5
Chloromethane	216	< 1	< 1
Cis-1,2-Dichloroethene	991	< 1	< 1
Methylene chloride	375	< 5	< 5
Trans-1,2-Dichloroethene	1,950	< 1	< 1
Vinyl chloride	3.86	< 1	< 1

**Table 1: Groundwater Analytical Results for Corrective Action COCs and Degradation Products, LTM Compliance Wells
Training Area T-6 and Cane Creek Training Area,
McClellan, Anniston, Alabama**

Notes:

< = Indicates the analyte was not detected at the reported quantitation limit shown.

µg/L = micrograms per liter

COCs = Constituents of concern

GS = Groundskeeper

ISB = In situ bioremediation

NS = Not sampled

RBTL = Risk-Based Target Level

SVE = Soil vapor extraction remediation

VOCs = Volatile Organic Compounds

dry or inadequate water volume to collect a sample

Lab Flags:

F1 = MS and/or MSD Recovery is outside acceptance limits.

J = Estimated detection. The analyte is positively identified and the concentration is less than the reporting limit (RL) but greater than the method detection limit (MDL).

U^ = Analyte is not detected above the RL; lab flag updated by MES data reviewer.

* = RPD for LCS and LCSD outside laboratory acceptance criteria.

Validation Flags:

(J) = The analyte was positively identified; reported value is an estimated concentration.

(UJ) = Analyte was analyzed for but was not detected; the reported quantitation limit is estimated.

(JA) = Estimated detection; internal standard area was outside method-specific control limits.

(JM) = Estimated detection; matrix spike and matrix spike duplicate recoveries were outside laboratory historical control limits.

(JS) = Estimated detection; surrogate recovery was outside laboratory historical control limits.

(UB) = Result was qualified as not detected based on blank contamination.

(UJA) = Reported quantitation limit is estimated; internal standard area was outside method-specific control limits.

(UJS) = Reported quantitation limit is estimated; surrogate recovery was outside laboratory historical control limits.

Result exceeds GS RBTL

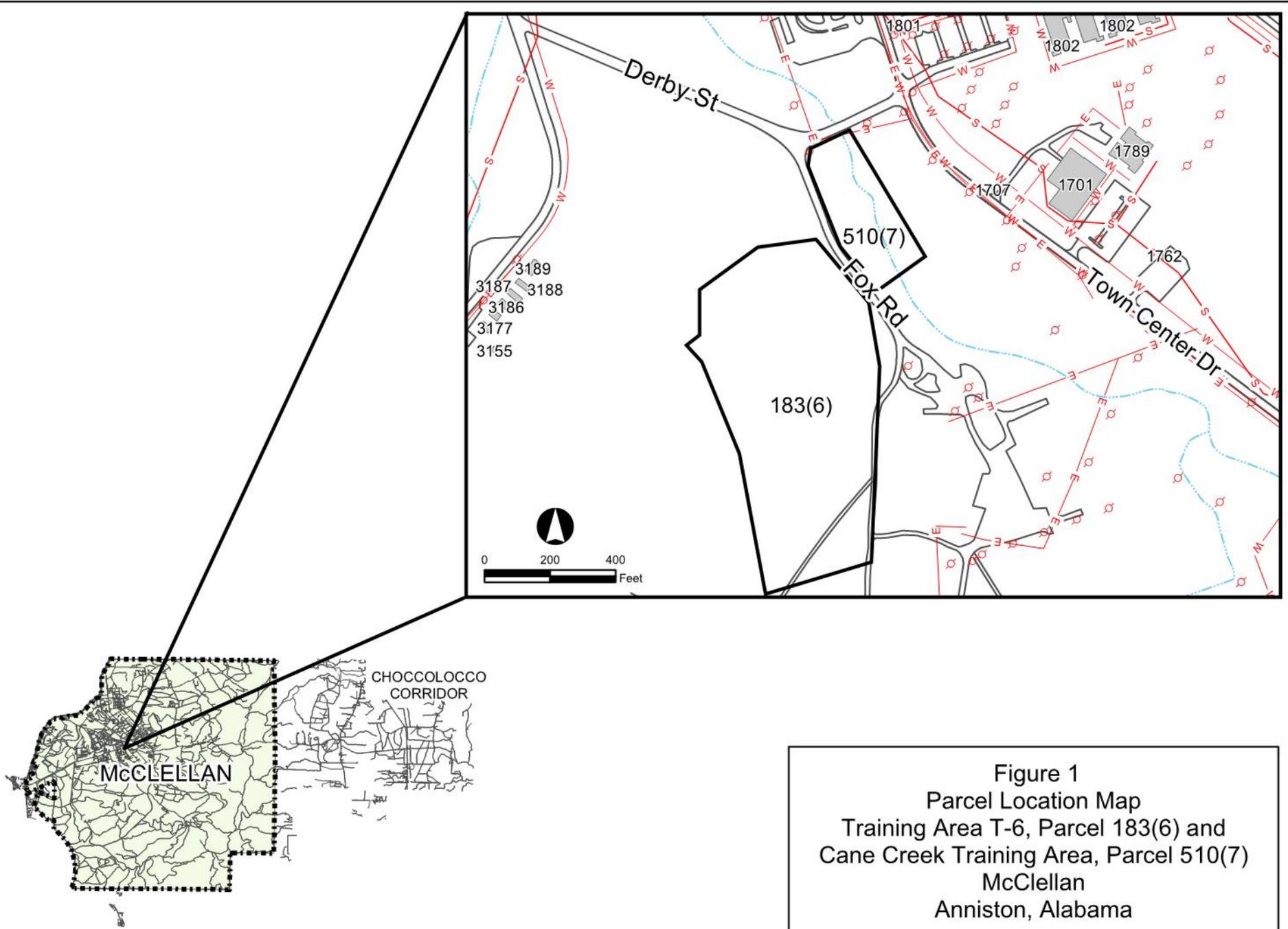


Figure 1
Parcel Location Map
Training Area T-6, Parcel 183(6) and
Cane Creek Training Area, Parcel 510(7)
McClellan
Anniston, Alabama



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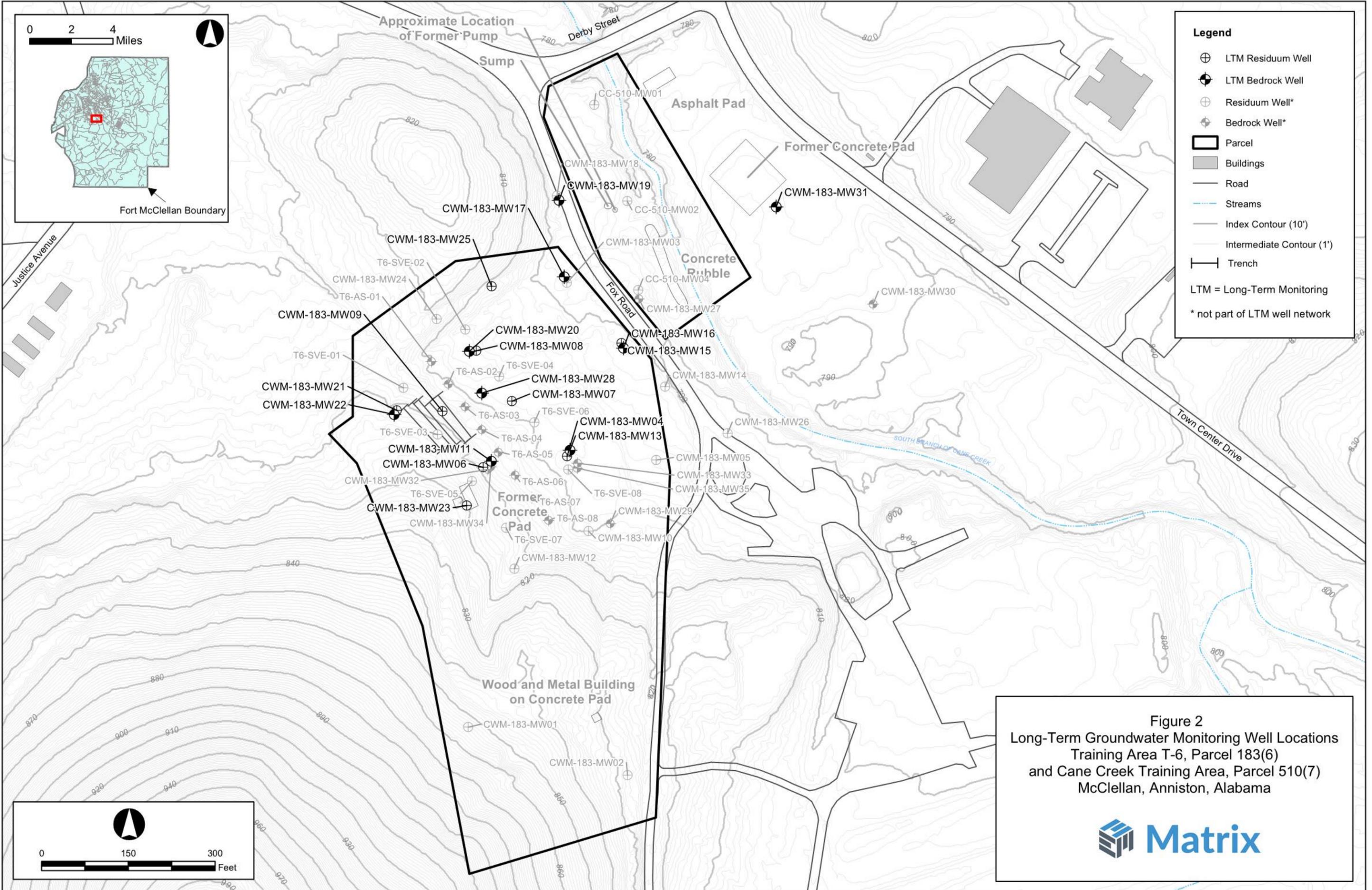


Figure 2
 Long-Term Groundwater Monitoring Well Locations
 Training Area T-6, Parcel 183(6)
 and Cane Creek Training Area, Parcel 510(7)
 McClellan, Anniston, Alabama



Geologic Features shown in approximate location.

Revised from Osborne, W.E., et al, 1997, Preliminary Geologic Map of the Anniston 7.5' Quadrangle, Calhoun County, Alabama, Geological Survey of Alabama.

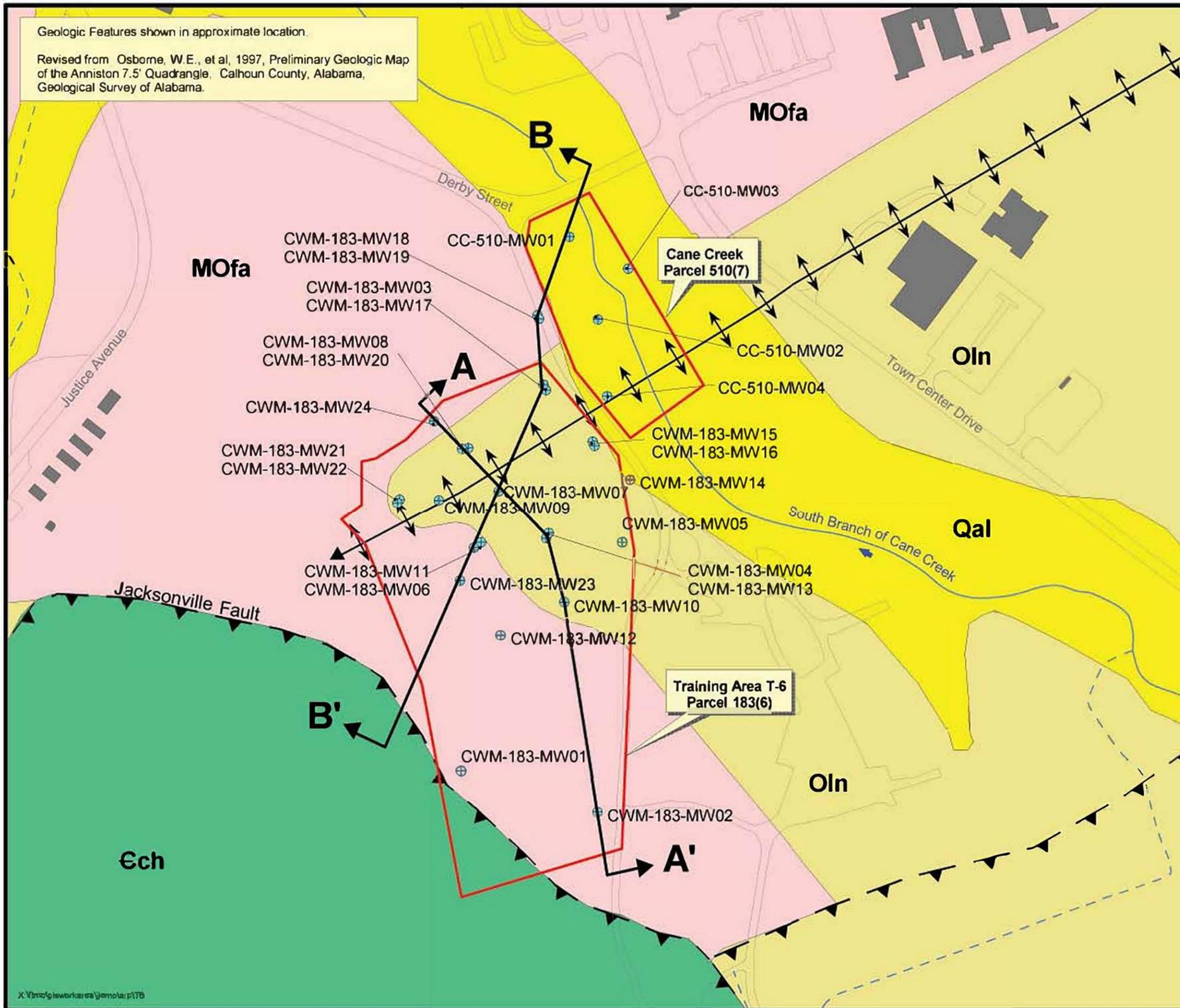


Figure 3

Site Geologic Map

Training Area T-6, Parcel 183(6) and Cane Creek, Parcel 510(7) McClellan, Anniston, Alabama

Legend

- Parcel Boundary
- Buildings
- Roads
- Streams (dashed where intermittent)
- Monitoring Well

Geology

- Qal Quaternary - Alluvium
- MOfa Mississippian/Ordovician - Floyd and Athens Shale, undifferentiated
- Oln Ordovician - Little Oak and Newala Limestones, undifferentiated
- Ech Cambrian - Chilhowee Group, undifferentiated
- Thrust Fault (dashed where inferred; barbs on upper plate)
- Inferred Plunging Anticlinal Fold
- Cross Section Location

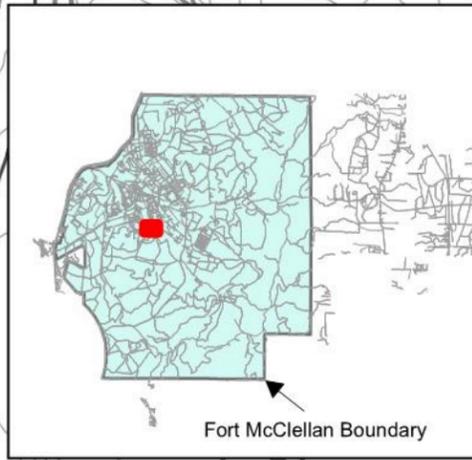
200 0 200 Feet

NAD83 State Plane Coordinates

N



Source: Shaw, 2004



Legend

- Bedrock Well
- Residuum Well
- Air Sparge Well
- SVE Well
- Former Concrete Wash Pads
- 25' Air-Sparge Influence (Estimated)
- Air-Sparge Pipe
- 100' SVE Influence (Estimated)
- Road
- Railroad
- Parcel
- Stream
- Surface Contour (10 foot)
- Surface Contour (1 foot)
- Trench

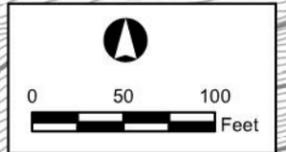
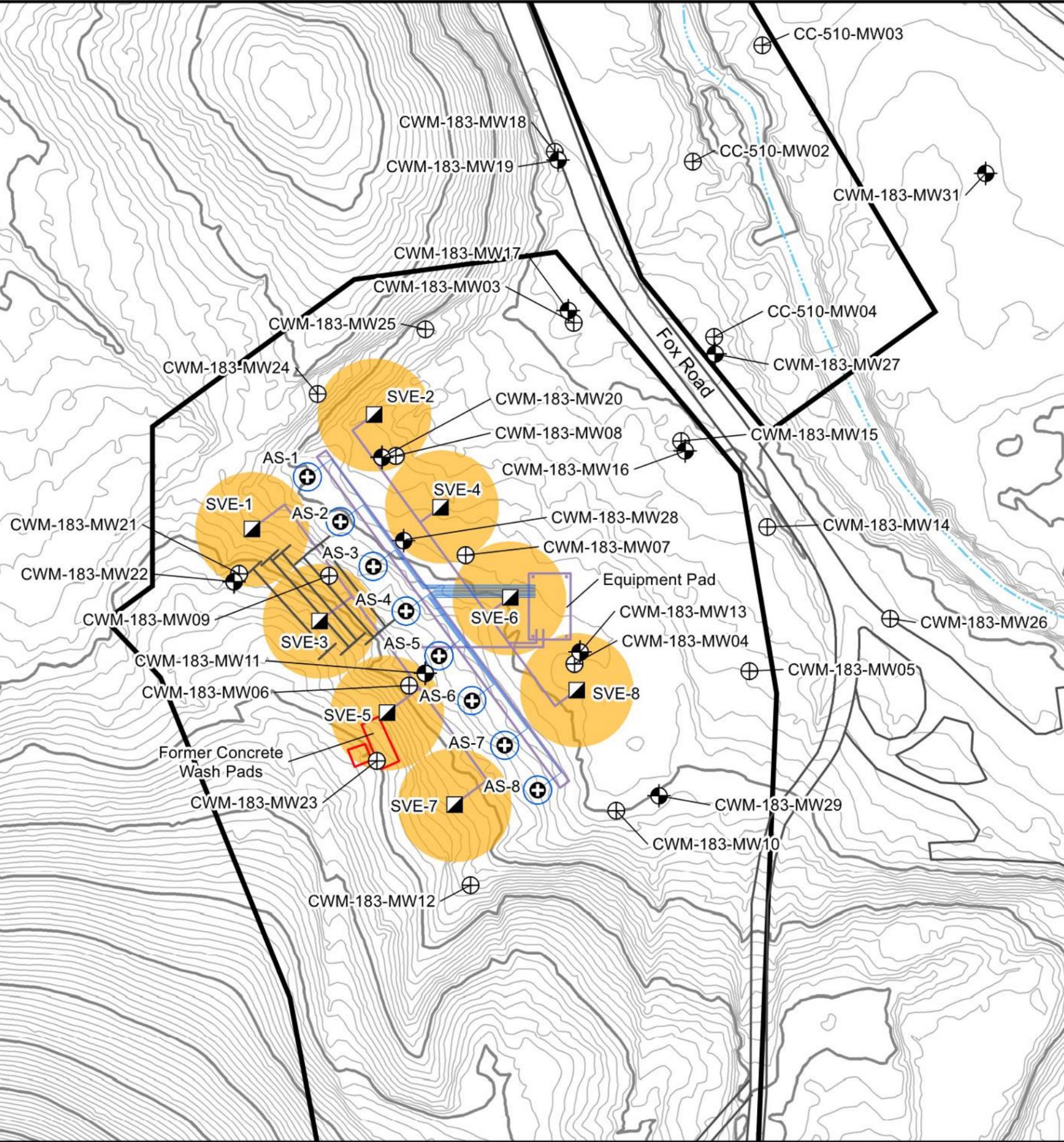
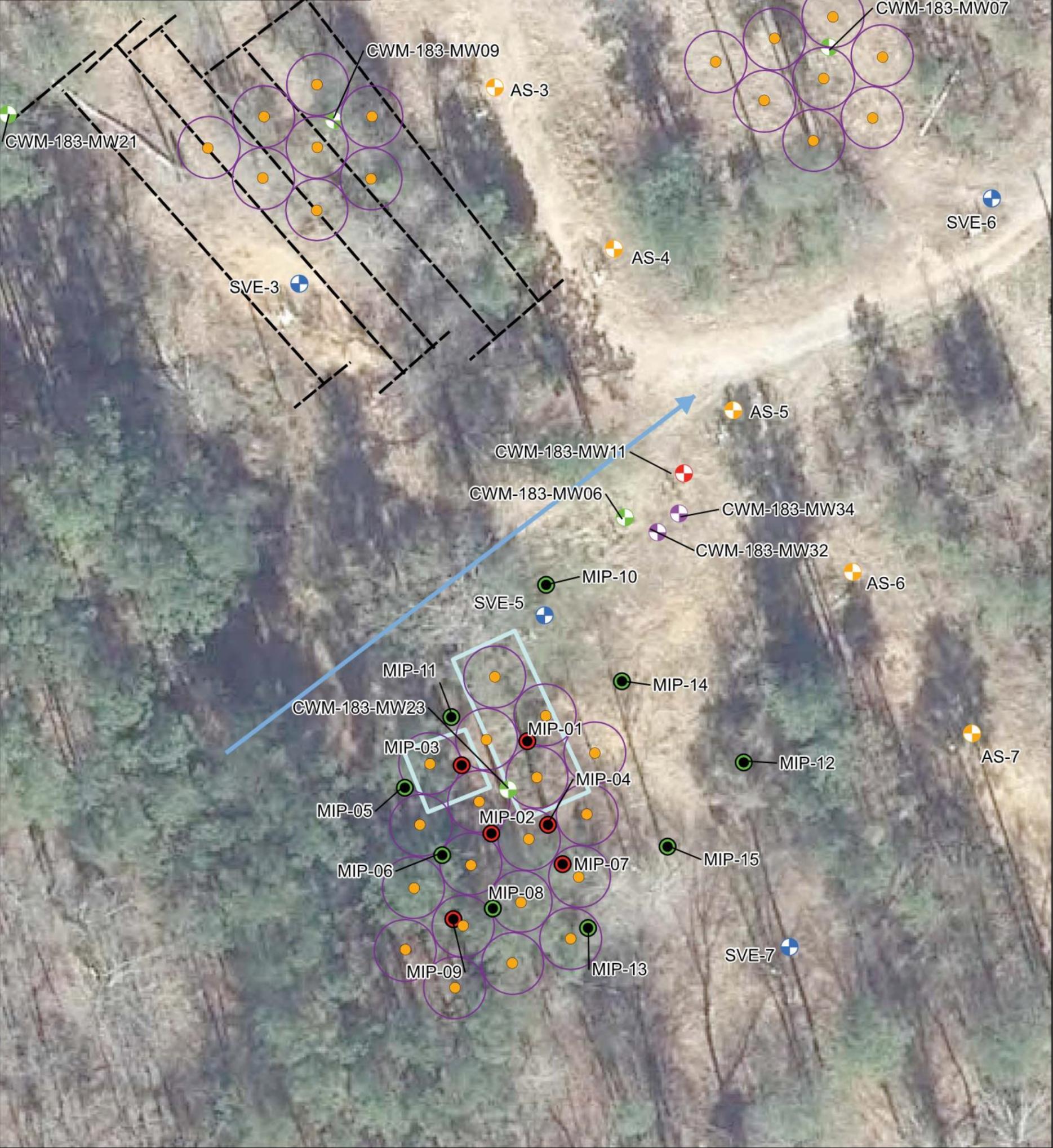


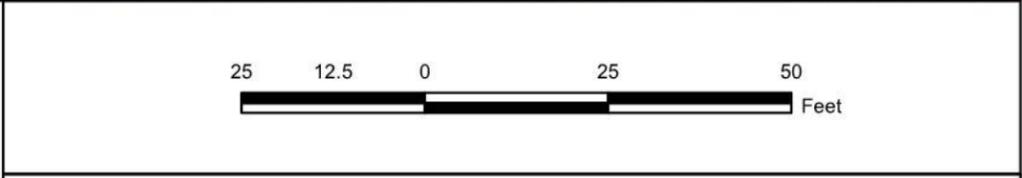
Figure 4
Remediation System Layout
Training Area T-6, Parcel 183(6)
and Cane Creek Training Area, Parcel 510(7)
McClellan, Anniston, Alabama

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- Notes:
1. DPT - direct push technology.
 2. ISB - in situ bioremediation.
 3. SVE - soil vapor extraction.
 4. MIP - membrane interface probe.
 5. MIP locations are approximate based on field measurements.
 6. PID - photoionization detector.
 7. μV - microvolts.
 8. ROI - radius of influence.
 9. Assumed ROI of 7.5 feet.



- Proposed DPT Locations
- MIP Location - Max PID <math> < 5 \times 10^4 \mu\text{V}</math>
- MIP Location - Max PID >math> > 5 \times 10^4 \mu\text{V}</math>
- ISB Monitoring Well
- SVE Well Used as ISB Injection Well
- T-6 Residuum Monitoring Well
- T-6 Bedrock Monitoring Well
- T-6 Air Sparge (AS) Well
- Approx. ROI
- Approx. Groundwater Flow
- - - Trench (Previously Used in Training Exercises)
- Former Concrete Wash Pad



**Proposed Injection Point Locations
Training Area T-6 (Naylor Field)
Parcel 183(6)**
McClellan, Anniston, AL

		
Kennesaw, GA	March 2017	<p style="font-size: 24pt; margin: 0;">Figure</p> <p style="font-size: 36pt; margin: 0;">5</p>

N:\McClellan\T-6\Design_2017\Figures\map\Figure 5.mxd

Guerrero, Heather L

From: Little, Brandi
Sent: Monday, January 6, 2025 3:08 PM
To: Guerrero, Heather L
Subject: FW: Revised Third Addendum to CMIP Former Small Weapons Repair Shop, Parcel 66(7) Revised 2025
Attachments: CMIP Small Weapons Jan 2025.pdf; CMIP Small Weapons Jan 2025 RLSO.pdf

FYI

From: Lynn Nance <lynn.nance@matrixdesigngroup.com>
Sent: Monday, January 6, 2025 2:51 PM
To: Little, Brandi <BLittle@adem.alabama.gov>
Cc: Land-GHWBmail@adem.alabama.gov <GHWBmail@adem.alabama.gov>; Gerald Hardy <Gerald_Hardy@matrixdesigngroup.com>; Richard Satkin <richard_satkin@matrixdesigngroup.com>
Subject: Revised Third Addendum to CMIP Former Small Weapons Repair Shop, Parcel 66(7) Revised 2025

Good afternoon,

Attached you will find the Revised Third Addendum to Corrective Measures Implementation Plan Former Small Weapons Repair Shop, Parcel 66(7) Revised January 2025 for your review and approval. I have also attached the RLSO version for your convenience.

Two hard copies of the revised report will be sent via FedEx.

If you have any questions, please let us know.

Thank you,

Lynn Nance



Lynn Nance
Administrative Assistant
Matrix Design Group, Inc.
O 256.847.0780 | C 256.310.3499
lynn.nance@matrixdesigngroup.com
283 Rucker St Anniston, AL 36205
matrixdesigngroup.com



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January 6, 2025

Ms. Ashley T. Mastin, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Submission of revised *Third Addendum to Corrective Measures Implementation Plan, Former Small Weapons Repair Shop, Parcel 66(7)*

Dear Ms. Mastin:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit a revised *Third Addendum to the Corrective Measures Implementation Plan, Former Small Weapons Repair Shop, Parcel 66(7)* dated July 2024 for your review. This CMIP rescinds MDA's request regarding the redesignation of the point of compliance wells. We have included a revised version of the CMIP for your review. In addition, I certify that all changes made to the report are shown in the attached redline strikeout version.

Two hard copies and an emailed copy have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

Response to ADEM Review and Comments dated January 6, 2025

RE: Revised Third Addendum to Corrective Measures Implementation Plan (CMIP),
Former Small Weapons Repair Shop, Parcel 66(7), dated July 12, 2024
Fort McClellan, Alabama

1. **Section 4.1 Long-Term Monitoring of Groundwater, Page 5:** The addendum requests that the current point of compliance wells listed in Table V.1 of the MDA's Cleanup Agreement with the Department (PPMP-66-MW02RR, PPMP-66-MW06R, PPMP-66-MW16, PPMP-66-18R, PPMP-66-MW17, PPMP-66-MW23R, PPMP-66-MW24R, PPMP-66-MW08) be redesignated as effectiveness wells, and monitoring wells PPMP-66-MW01, PPMP-66-MW04, and PPMP-66-MW14 be added to the monitoring program as point of compliance (POC) wells. However, per the Revision 3 Alabama Risk-Based Corrective Action Guidance, POC wells are used as sentry wells to ensure that chemicals of concern in groundwater are not exceeding the risk-based target levels calculated for each POC well and migrating to the point(s) of exposure (POE). Therefore, in order to redesignate the POC wells and remain protective of the POEs, an updated risk assessment utilizing current data sets should be conducted so that the correct allowable concentrations at each proposed POC can be calculated. Furthermore, please provide justification detailing why a redesignation is necessary.

MDA Response: The MDA respectfully retracts its request regarding the redesignation of the current POC wells listed in Table V.1 of the Cleanup Agreement as effectiveness wells and the addition of PPMP-66-MW-01, PPMP-66-MW04, and PPMP-66-MW14 as POC wells.

**Third Addendum to Corrective Measures
Implementation Plan
Former Small Weapons Repair Shop, Parcel 66(7)
McClellan, Anniston, Alabama**

Prepared for:



**McClellan Development Authority
Anniston, Alabama**

Prepared by:



**283 Rucker St
Anniston, AL 36205**

**(256) 847-0780
Fax (256) 847-0905**

**February 2024
Revised July 2024
Revised January 2025**

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LIST OF ACRONYMS

1,1-DCE	1,1-dichloroethene
ADEM	Alabama Department of Environmental Management
Army	Department of the Army
CA	Cleanup Agreement
cis-1,2-DCE	cis-1,2-dichloroethene
CMER	Corrective Measures Effectiveness Report
CMIR	Corrective Measures Implementation Report
COC	Chemical of concern
ESCA	Environmental Services Cooperative Agreement
FOSET	Finding of Suitability for Early Transfer
GPS	Groundwater Protection Standard
LTM	Long-term monitoring
McClellan	Former Fort McClellan
MDA	McClellan Development Authority
MES	Matrix Environmental Services, LLC
RBTL	Risk-Based Target Level
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
Site	Former Small Weapons Repair Shop, Parcel 66(7)
TCE	Trichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
U.S.	United States
VC	Vinyl Chloride
VOC	Volatile organic compound

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1.0 INTRODUCTION AND SITE HISTORY

1.1 PURPOSE

Corrective measures were implemented in 2010 and 2018 at the Former Small Weapons Repair Shop, Parcel 66(7) to reduce concentrations of corrective action chemicals of concern (COCs) cis-1,2-Dichloroethene (cis-1,2-DCE), Trichloroethene (TCE), and Vinyl Chloride (VC) and daughter products 1,1-Dichloroethene (1,1-DCE) and trans-1,2-Dichloroethene (trans-1,2-DCE) in groundwater. Twelve years of post-remediation groundwater monitoring have demonstrated a reduction in COC concentrations although VC exceeds the Risk-Based Target Level (RBTL) also referred to as the Groundwater Protection Standard (GPS) of 3.86 µg/L in wells PPMP-66-MW02RR and PPMP-66-MW23R.

In the Corrective Measures Effectiveness Report (CMER) Twelfth Year Long-Term Groundwater Monitoring (Matrix Environmental Services, LLC [MES], 2023), the McClellan Development Authority (MDA) proposed to modify the groundwater sampling frequency from semi-annual to annually. The Alabama Department of Environmental Management (ADEM) concurred with the revised sampling frequency request on October 26, 2023. The purpose of this Third Addendum to the Corrective Measures Implementation Plan (CMIP) is to formalize the modified frequency of groundwater sampling in a CMIP.

1.2 BACKGROUND

This work is being performed on behalf of the MDA after assuming from the United States (U.S.) Department of the Army (Army) the responsibility for environmental closure of certain sites at McClellan. Transfer of these sites to the MDA was conducted pursuant to Comprehensive Environmental Response, Compensation, and Liability Act Section 120(h)(3)(C) which allows federal agencies to transfer contaminated property before all necessary cleanup has taken place.

The basis for the cleanup effort at these parcels is an Environmental Services Cooperative Agreement (ESCA) DASW01-03-2-001 effective September 30, 2003 between the MDA (formerly the Anniston-Calhoun County Fort McClellan Development Joint Powers Authority (JPA)) and the Army (Army, 2003) which was superseded by ESCA Agreement W9128F-07-2-0163 on September 11, 2007 and its subsequent modifications (Army, 2007). In addition, the MDA negotiated a CA, amended most recently in July 2019, with ADEM that describes the responsibilities for completing the investigation and remediation of potentially impacted sites at McClellan (ADEM, 2003, 2005, 2009, 2011, and 2014). Property that was determined by the Army and ADEM to be suitable for transfer (i.e., “clean property”) was transferred to the JPA under a Finding of Suitability for Transfer. Subsequently, remaining contaminated property was transferred to the JPA under a Finding of Suitability for Early Transfer (FOSET). The basis for the continuing cleanup effort at these FOSET parcels is the execution of the ESCA and the CA.

2.0 SITE CONDITIONS

2.1 SITE DESCRIPTION

The Former Small Weapons Repair Shop (Site) consists of 1.15 acres located in the central portion of McClellan near the intersection of Pappy Dunn Boulevard and Freemont Road (**Figure 1**). The Site is located on a topographical divide, the northern portion of the parcel slopes to the north, and the southern portion of the parcel slopes slightly to the south. Two buildings (Building 335 and 336) were formerly located within the Site boundary and were demolished in 2007. Building 335 formerly housed the Small Weapons Repair Shop where weapons used for training exercises were stored, disassembled, and cleaned using various solvents including TCE.

The Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI) (MES, 2006) conducted at the Site defined the nature and extent of volatile organic compounds (VOCs) in shallow soil and groundwater. The greatest concentrations of VOCs contamination have been measured in the residuum and transition groundwater zones near the southern and western footprint of former Building 335 proximal to a sanitary sewer where it was suspected that TCE was disposed during routine operations.

2.2 SUMMARY OF GROUNDWATER CONDITIONS

The geologic data collected at the Site show that the residuum derived from bedrock decomposition consists of brown to brownish-gray to yellowish-orange silty-clay and clay, with occasional intervals of highly weathered shale. This sequence extends from the ground surface to approximate depths of around 10 to 13 feet below ground surface (bgs). Underlying this interval and described as the lower portion of the residuum or transition zone, is a variable thickness of highly weathered light gray to black shale that extends to a maximum depth of approximately 30 feet bgs. Competent bedrock underlying the transition zone consists of moderately hard, slightly weathered, fractured, dark gray to black shale.

Groundwater at the Site occurs in the residuum and is encountered at unusually shallow depths (less than 10 feet below ground surface). Groundwater in the residuum zone appears to flow radially away from a groundwater elevation high located beneath the southern portion of former Building 335 and appears to be subtly influenced by surface topography. Groundwater flow in the northern portion of the Site is to the north towards Cave Creek; groundwater flow in the southwestern part of the parcel is to the south towards Cane Creek (**Figure 2**). These flow directions are very local since the regional groundwater flow direction at McClellan in both residuum and bedrock is northwesterly. Groundwater flow from the Site is expected to revert to regional trends a relatively short distance from the Site. Measured hydraulic gradients in both the residuum and bedrock zones are low indicating a relatively flat-water table at the Site.

3.0 CORRECTIVE MEASURES

3.1 CORRECTIVE MEASURES HISTORY

In March 2007, MES submitted the CMIP for the Site (MES, 2007) that proposed in situ soil treatment using anhydrous quicklime and treatment of groundwater via in-situ chemical oxidation (ISCO) by injecting Fenton's reagent. A soil treatment pilot study was performed in the contaminant source area in June 2007. Groundwater monitoring conducted at the Site following the pilot study demonstrated that the pilot study had a secondary effect resulting in decreases in groundwater contaminant concentrations. Subsequently MES reevaluated the need for ISCO by injection of Fenton's reagent. In March 2009, the MDA submitted a Tech Memo Addendum to the CMIP (CMIP Addendum) (MES, 2009) that requested a revision in the groundwater corrective measure technology. In place of Fenton's reagent injection, the use of potassium permanganate as a chemical oxidant was proposed. The CMIP and CMIP Addendum were approved by ADEM on June 4, 2011.

Based on the data assessment presented in the CMIP Addendum, cis-1,2-DCE, TCE, and VC in groundwater were determined to be COCs. The GPS for the Site are listed in Table V.3 of the CA (shown below):

Hazardous Constituent	Concentration Limit (µg/L)
cis-1,2-Dichloroethene	991
Trichloroethene	205
Vinyl Chloride	3.86

The locations where the COCs previously exceeded the GPSs in 2007/2008 were in the residuum groundwater zone wells PPMP-66-MW02 and PPMP-66-MW06 and transition groundwater zone wells PPMP-66-MW23 and PPMP-66-MW24 and were included in the target treatment area (**Figure 3**). There were no COCs in bedrock wells that exceeded the GPS.

From October 2010 to February 2011, corrective measures were implemented at the Site as outlined in the CMIP (MES, 2007) and CMIP Addendum (MES, 2009). Details of the corrective measures activities are documented in the Corrective Measures Implementation Report (CMIR) (MES, 2013). The CMIR was approved by ADEM on May 30, 2013.

Corrective measures activities included:

- the abandonment of groundwater monitoring wells PPMP-66-MW02, PPMP-66-MW06, PPMP-66-MW12, PPMP-66-MW18, PPMP-66-MW23, and PPMP-66-MW24 located in the target treatment area,
- anhydrous quicklime blending into the soil of the target treatment area to reduce residual COCs concentrations in the soil that may provide a source of contaminants to the groundwater plume,
- direct application of solid potassium permanganate to the exposed bedrock during quicklime mixing activities to promote the chemical oxidation of the COCs in groundwater,

- site restoration and re-vegetation, and
- replacement of the residuum and transition groundwater monitoring wells in the target treatment area, that were previously abandoned, for use in LTM.

Groundwater monitoring following implementation of the corrective measures continued to detect concentrations of VC above the GPS near the estimated source area. In June 2018, MES submitted the Second Addendum to the CMIP (MES, 2018) that proposed additional ISCO treatment using hydrogen peroxide activated sodium persulfate. The Second Addendum to the CMIP was approved by ADEM on September 18, 2018.

The ISCO corrective measures were implemented in December 2018. The oxidation solution was injected into 13 shallow temporary injection points ranging in depth from 3 ft below bgs to 15 ft bgs and 13 deep temporary injection points ranging in depth from 11 ft bgs to 30 ft bgs. The target ISCO treatment area is shown in **Figure 4**. Details of the corrective measure activities are documented in the CMIR Addendum (Groundwater & Environmental Services, Inc., 2019). The CMIR Addendum was approved by ADEM on August 19, 2019.

4.0 LONG-TERM MONITORING

4.1 LONG-TERM MONITORING OF GROUNDWATER

The twelfth year of long-term monitoring (LTM) of groundwater following implementation of the initial corrective measures in 2010 has been completed and was reported in the CMER (2023). VC concentrations exceeded the GPS in wells PPMP-66-MW02RR and PPMP-66-MW23R during the twelfth year of LTM. MDA proposes to continue groundwater monitoring at an annual sampling frequency to track the monitored natural attenuation of the VOC concentrations.

Monitoring wells at the Site are categorized by program function and by depth. The current monitoring well network listed in Table V.1 of the CA includes four residuum wells, three transition wells, and one bedrock well as shown below. Boring and well completion logs for are included in Appendix A.

Residuum Wells	Transition Wells	Bedrock Wells
PPMP-66-MW02RR PPMP-66-MW06R PPMP-66-MW16 PPMP-66-18R	PPMP-66-MW17 PPMP-66-MW23R PPMP-66-MW24R	PPMP-66-MW-08

5.0 REFERENCES

- ADEM. 2003. *In the Matter of: Anniston-Calhoun County Fort McClellan Development Joint Power Authority Facility, Cleanup Agreement No. AL4 210 020 562*. September.
- _____. 2005. *In the Matter of: Anniston-Calhoun County Fort McClellan Development Joint Power Authority Facility, Cleanup Agreement No. AL4 210 020 562. Mod 1*. November.
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- _____. 2011. *Concurrence for Final Corrective Measures Implementation Plan (CMIP) for Final CMIP for Small Weapons Repair Shop, Parcel 66(7); Technical Memo, Addendum to the Final CMIP for Small Weapons Repair Shop, Parcel 66(7)*. June.
- _____. 2013. *ADEM Review and Concurrence, Final Corrective Measures Implementation Report, Former Small Weapons Repair Shop, Parcels 66(7)*. May.
- _____. 2014. *In the Matter of: McClellan Development Authority, Cleanup Agreement No. AL4 210 020 562. Mod 4*. February.
- _____. 2018. *ADEM Review and Concurrence, Second Addendum to Corrective Measures Implementation Plan, Former Small Weapons Repair Shop, Parcels 66(7)*. September.
- _____. 2019. *In the Matter of: McClellan Development Authority, Cleanup Agreement No. AL4 210 020 562. Mod 5*. July.
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- MES. 2006. *Final Resource Conservation and Recovery Act Facility Investigation for Small Weapons Repair Shop, Parcel 66(7)*. February.
- _____. 2007. *Final Corrective Measures Implementation Plan, Former Small Weapons Repair Shop, Parcel 66(7)*. March.

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_____. 2019. *Final Corrective Measures Implementation Report Addendum, Former Small Weapons Repair Shop, Parcel 66(7)*. May.

_____. 2023. *Corrective Measures Effectiveness Report, Twelfth Year Long-Term Monitoring, Former Small Weapons Repair Shop, Parcel 66(7)*. September.

FIGURES

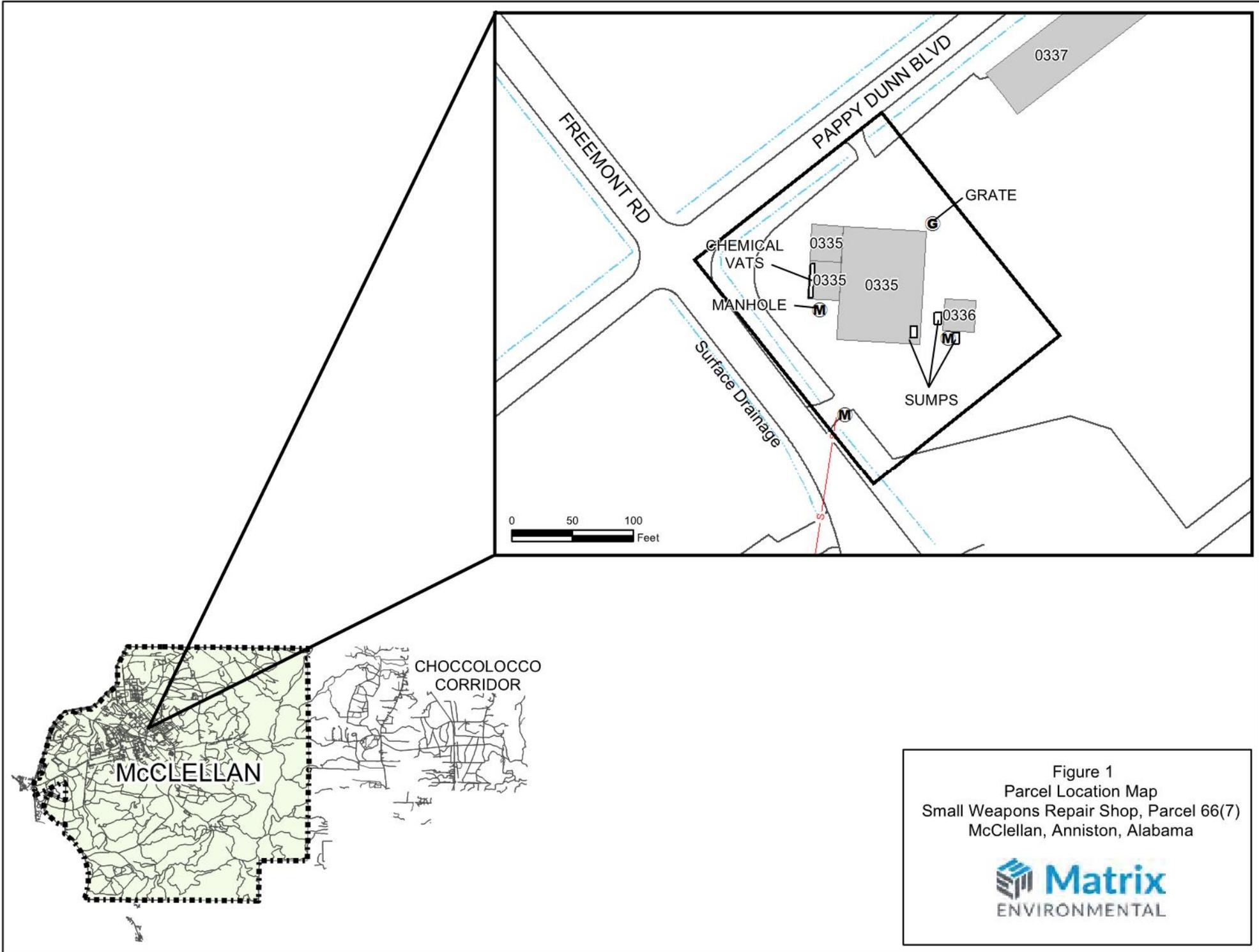
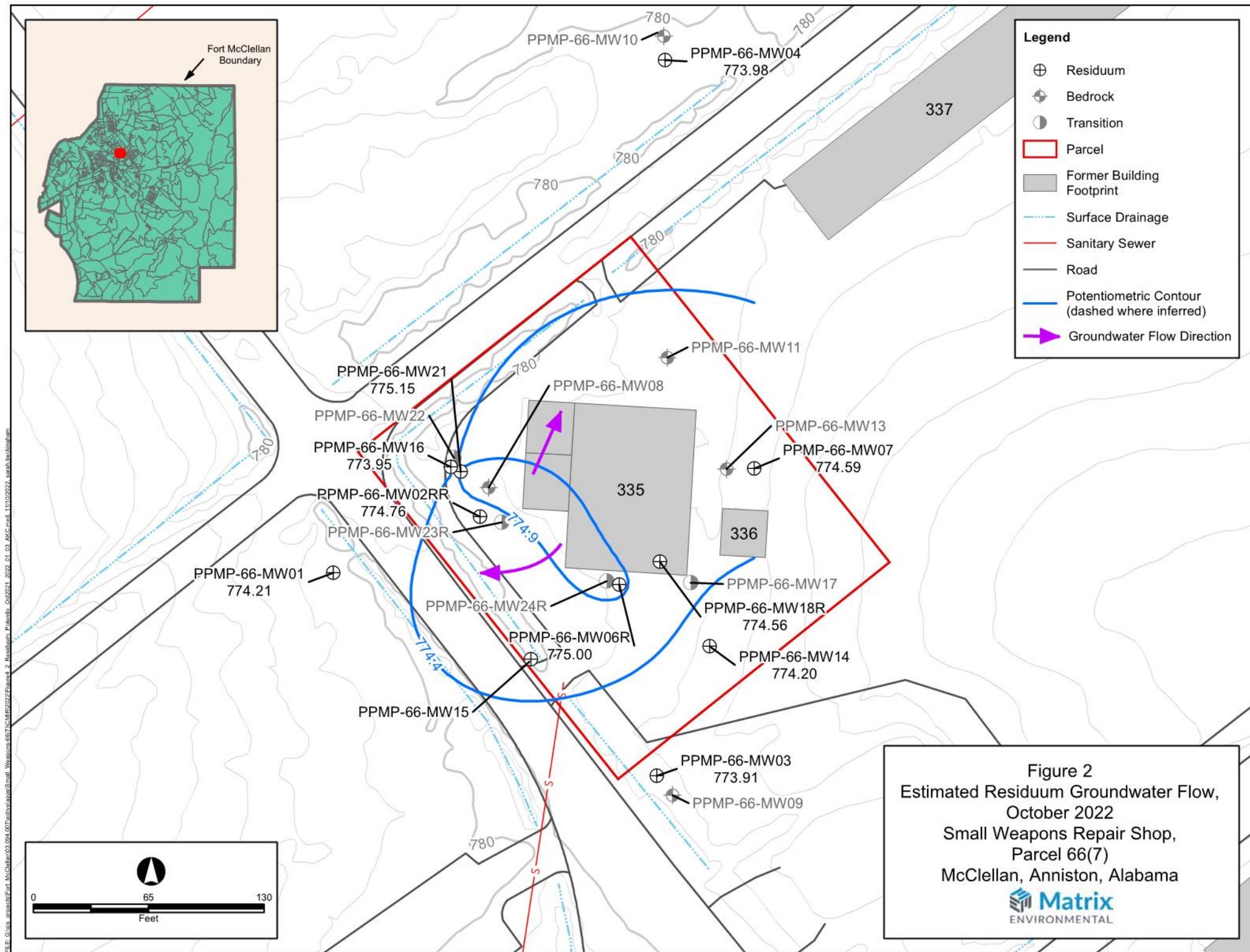


Figure 1
Parcel Location Map
Small Weapons Repair Shop, Parcel 66(7)
McClellan, Anniston, Alabama





- Legend**
- ⊕ Residuum
 - ⊕ Bedrock
 - Transition
 - ▭ Parcel
 - ▭ Former Building Footprint
 - Surface Drainage
 - Sanitary Sewer
 - Road
 - Potentiometric Contour (dashed where inferred)
 - ➔ Groundwater Flow Direction

Figure 2
 Estimated Residuum Groundwater Flow,
 October 2022
 Small Weapons Repair Shop,
 Parcel 66(7)
 McClellan, Anniston, Alabama

Matrix
 ENVIRONMENTAL

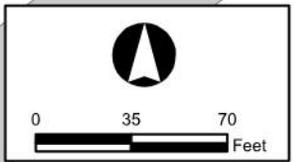
FILE: G:\data\projects\Fort McClellan\03_054_007\swr\dwg\SWR022\Figure4_2_Residuum_Potential_11102022_sarah_buckingham

LEGEND

- ⊕ Residuum Well (VOCs < RBTLs)
- ⊙ Transition Well (VOCs < RBTLs)
- ⊗ Bedrock Well (VOCs < RBTLs)
- Residuum Well (VOCs > RBTLs)
- Transition Well (VOCs > RBTLs)
- ⊙ Grate
- Ⓜ Manhole
- ▭ Parcel
- Surface Drainage
- ▭ Former Building Footprint
- Sanitary Sewer
- Road
- Approximate Target Treatment Area (actual extents to be determined in the field during treatment activities)
- Approximate Area of Anhydrous Quicklime Pilot Study

RBTL = Risk-Based Target Level
GS = Groundskeeper

GS RBTLs (ug/L)
cis-1,2-Dichloroethene (cis-1,2-DCE) = 991
Trichloroethene (TCE) = 205
Vinyl Chloride (VC) = 3.86
Shaded concentrations are > RBTLs

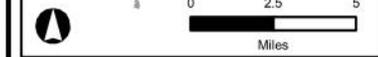
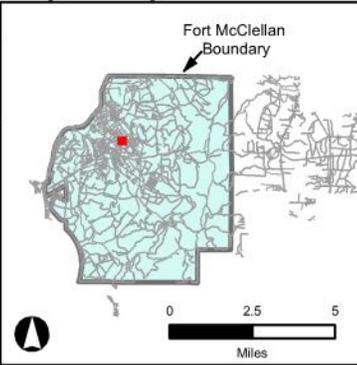


PPMP-66-MW02 (residuum)			
(ug/L)	5/13/2004	11/7/2007	5/21/2008
cis-1,2-DCE	36	210	130
TCE	74	480	27
VC	110	100	71

PPMP-66-MW23 (transition)			
(ug/L)	5/13/2004	11/7/2007	5/21/2008
cis-1,2-DCE	1.6	110	75
TCE	1.4	89	290
VC	9.2	16	20

PPMP-66-MW24 (transition)			
(ug/L)	5/17/2004	11/5/2007	5/20/2008
cis-1,2-DCE	130	290	260
TCE	5000	2500	4000
VC	1.2	16	11

PPMP-66-MW06 (residuum)			
(ug/L)	5/17/2004	11/5/2007	5/19/2008
cis-1,2-DCE	1600	810	700
TCE	13000	2900	3900
VC	10	26	26



PPMP-66-MW10
PPMP-66-MW04

PPMP-66-MW08
PPMP-66-MW21
PPMP-66-MW22
PPMP-66-MW16

PPMP-66-MW05
PPMP-66-MW20

PPMP-66-MW11

FORMER CHEMICAL VATS
335

PPMP-66-MW18
PPMP-66-MW07
PPMP-66-MW13

FORMER SUMPS
336

PPMP-66-MW17
PPMP-66-MW19

PPMP-66-MW14

PPMP-66-MW12
PPMP-66-MW15

PPMP-66-MW09
PPMP-66-MW03

PAPPY DUNN BLVD.

FREMONT RD.

Figure 3
CMIP Addendum Target Treatment Area
Small Weapons Repair Shop, Parcel 66(7)
McClellan, Anniston, Alabama

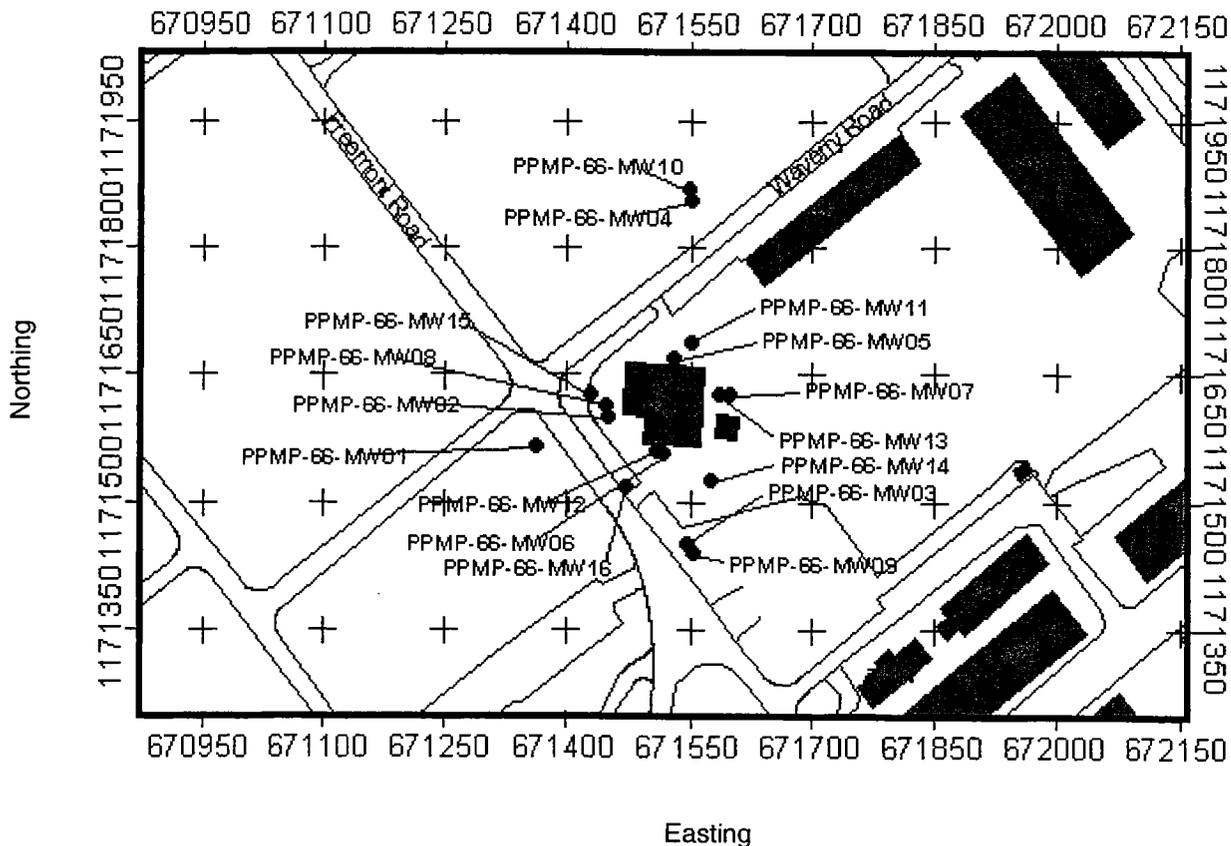


APPENDIX A

Boring and Well Completion Logs

HTRW DRILLING LOG		District: Mobile USACE		HOLE NUMBER PPMP-66-MW01	
1. Company name: IT Corporation		2. Drill Subcontractor: Miller Drilling Company		Sheet 1 of 4 sheets	
3. Project: Fort McClellan		4. Location: Calhoun County, Alabama			
5. Name of driller: Ken Gobell		6. Mfr. designation of drill: CME 750			
7. Sizes and types of drilling and sampling equipment: Hollow Stem Auger HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons		8. Hole location: Small Weapons Repair Shop, Parcel 66			
		9. Surface elevation (feet above mean sea level): 780.1			
		10. Date started: 10/16/00		11. Date completed: 10/16/00	
12. Overburden thickness (feet bgs): >24		15. Depth groundwater encountered (feet bgs): 12			
13. Depth drilled into rock (feet bgs): 0		16. Depth to water and elapsed time after drilling completed (feet bgs): 8.35 after ~ 24hours			
14. Total depth of hole (feet bgs): 24		17. Other water level measurements (specify): NA			
18. Geotechnical samples:	Collected:	Disturbed:	Undisturbed:	19. Total no. of core boxes: NA	
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	Other (specify)
					21. Total core recovery: NA
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: Dennis Mayton	
		X			

LOCATION SKETCH/COMMENTS:



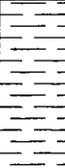
HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-66-MW01

Project: Fort McClellan

Geologist: Dennis Mayton

Sheet 2 of 4 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
780	0	NA: No sample collected for lithologic description.							
	1								
	2								
	3		NA						
	4								
775	5	cl: Dry, yellowish-orange to light gray, very stiff CLAY, little Silt.	cl		Organic Vapor = 0.0ppm			12 25 33 36	Rec 2.0'/2.0' (5-7' bgs)
	6	sh: Dry, olive gray, highly weathered SHALE.	sh						
	7	NA: No sample collected for lithologic description.							
	8								
	9		NA						

HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-66-MW01

Project: Fort McClellan

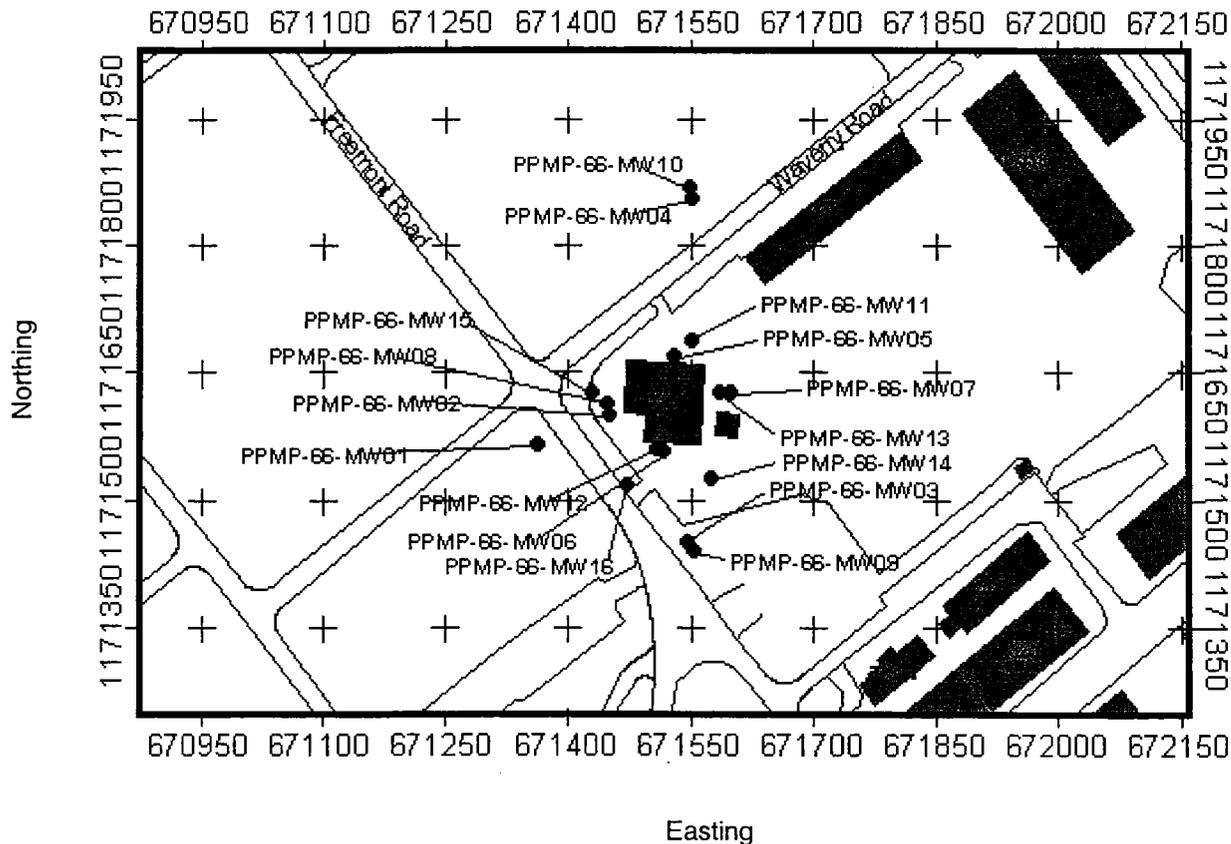
Geologist: Dennis Mayton

Sheet 4 of 4 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
760	20		sh						Auger refusal at 24' bgs
	21								
	22								
	23								
	24								Bottom of borehole at 24' bgs

HTRW DRILLING LOG		District: Mobile USACE		HOLE NUMBER PPMP-66-MW04	
1. Company name: IT Corporation		2. Drill Subcontractor: Miller Drilling Company		Sheet 1 of 4 sheets	
3. Project: Fort McClellan			4. Location: Calhoun County, Alabama		
5. Name of driller: Ken Gobell			6. Mfr. designation of drill: CME 750		
7. Sizes and types of drilling and sampling equipment: Hollow Stem Auger HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons			8. Hole location: Small Weapons Repair Shop, Parcel 66		
			9. Surface elevation (feet above mean sea level): 779.98		
			10. Date started: 10/17/00	11. Date completed: 10/17/00	
12. Overburden thickness (feet bgs): >24			15. Depth groundwater encountered (feet bgs): 12		
13. Depth drilled into rock (feet bgs): 0			16. Depth to water and elapsed time after drilling completed (feet bgs): 6.8 after ~ 24 hours		
14. Total depth of hole (feet bgs): 24			17. Other water level measurements (specify): NA		
18. Geotechnical samples:	Collected:	Disturbed:	Undisturbed:	19. Total no. of core boxes: NA	
20. Samples for chemical analysis:	VOC	Metals	Other (specify)	Other (specify)	21. Total core recovery: NA
22. Disposition of hole:	Backfilled	Monitoring well	Other (specify)	Geologist: Dennis Mayton	
		X			

LOCATION SKETCH/COMMENTS:



HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-66-MW04

Project: Fort McClellan

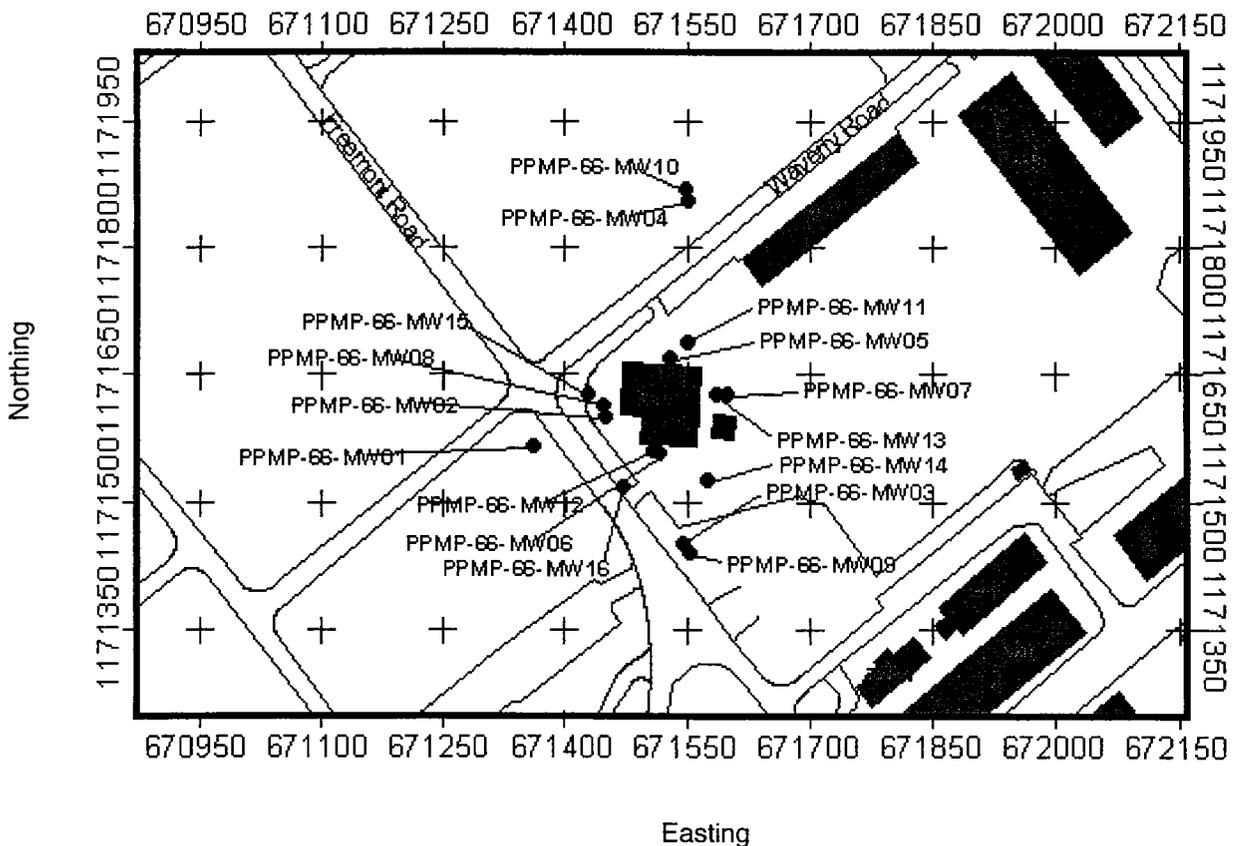
Geologist: Dennis Mayton

Sheet 3 of 4 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
770	10	sh: Moist, olive gray to black, weathered SHALE.	sh		Organic Vapor = 0.0ppm			50/0.5'	Rec 0.5'/0.5" (10-10.5' bgs)
	11	sh: Wet, olive gray to black weathered SHALE.							
	12		NA						
	13								
	14	sh: Medium gray to black SHALE.	sh		Organic Vapor = 0.0ppm				Description from HSA drill cuttings
765	15								
	16								
	17								
	18								
	19								

HTRW DRILLING LOG		District: Mobile USACE		HOLE NUMBER PPMP-66-MW14	
1. Company name: IT Corporation		2. Drill Subcontractor: Miller Drilling Company		Sheet 1 of 4 sheets	
3. Project: Fort McClellan			4. Location: Calhoun County, Alabama		
5. Name of driller: Steven Gautney			6. Mfr. designation of drill: CME 75		
7. Sizes and types of drilling and sampling equipment: Hollow Stem Auger HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons			8. Hole location: Small Weapons Repair Shop, Parcel 66		
			9. Surface elevation (feet above mean sea level): 781.93		
12. Overburden thickness (feet bgs): 24			15. Depth groundwater encountered (feet bgs): 18		
13. Depth drilled into rock (feet bgs): 1			16. Depth to water and elapsed time after drilling completed (feet bgs): NA		
14. Total depth of hole (feet bgs): 25			17. Other water level measurements (specify): NA		
18. Geotechnical samples:		Collected:	Disturbed:	Undisturbed:	19. Total no. of core boxes: NA
20. Samples for chemical analysis:		VOC	Metals	Other (specify)	Other (specify) Other (specify) 21. Total core recovery: NA
22. Disposition of hole:		Backfilled	Monitoring well	Other (specify)	Geologist: Adam Day
			X		

LOCATION SKETCH/COMMENTS:



Project: Fort McClellan

bgs= below ground surface
NA = Not applicable

Hole no.: PPMP-66-MW14

HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-66-MW14

Project: Fort McClellan

Geologist: Adam Day

Sheet 2 of 4 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
0		NA: No recovery. (asphalt and fill)							
	1		NA						
780	2	cl: Olive gray to brown, moist CLAY, some white, subrounded quartzite Gravel.	cl		Organic Vapor = 0.0ppm			4 11 22 13	Rec 1.5'/2.0' (2-4' bgs)
	3								
	4	NA: No recovery.	NA						
	4	cl: Yellowish orange to white to brown, hard, moist CLAY, some Sand, little Silt, little Gravel (Gravel is black Shale).	cl		Organic Vapor = 0.0ppm			22 50/0.5	Rec 0.5'/2.0' (4-6' bgs)
	5	NA: No recovery.	NA						
	6	cl: White to brown to yellowish orange, dry, hard CLAY, some Sand, some Silt, some Gravel (Gravel is black Shale).	cl		Organic Vapor = 0.0ppm			10 32 40 50/0.3	Rec 1.5'/1.8' (6-7.8' bgs)
775	7								
	8	NA: No recovery.	NA						
	8	cl: White to light brown to brown to greenish gray to yellowish orange, dry, hard CLAY, some Silt, some Sand, some Gravel (Gravel is gray Shale).	cl		Organic Vapor = 4.1ppm			10 20 50/0.3	Rec 0.8'/1.3' (7.8-9.1' bgs)
	9	NA: No recovery.	NA						
	9	NA: No sample collected for lithologic description.	NA						

HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-66-MW14

Project: Fort McClellan

Geologist: Adam Day

Sheet 4 of 4 sheets

Elev. (a)	Depth (b)	Description of Materials (c)	USCS / Lithology	Graphic	Field screening results (d)	Geotech sample or core box no. (e)	Analytical sample no. (f)	Blow counts (g)	Remarks (h)
	20		NA						
	21								
760	22								
	23	sh: SHALE, moderately weathered, black, highly fractured, very wet, some Sand.	sh		Organic Vapor = 25.0ppm			20 50/0.5	Rec 0.6/1.0' (23-24' bgs)
		NA: No recovery.	NA						
	24	NA: No sample collected for lithologic description.	NA						
	25		NA						Bottom of borehole at 25' bgs

MONITORING WELL INSTALLATION DETAIL

PROJECT: Fort McClellan
LOCATION: Anniston, AL
CLIENT: USACE Mobile District
CONTRACTOR: Miller Drilling Co.
DRILLER: Ken Gobell
IT FIELD REPRESENTATIVE: Dennis Mayton

WELL NO: PPMP-66-MW01
DRILLING METHOD: Hollow Stem Auger
INSTALLATION DATE: 16-OCT-00
NORTHING: 1171563.79
EASTING: 671361.97
HORIZONTAL SURVEY DATUM: NAD83
VERTICAL SURVEY DATUM: NGVD88
JOB NO: 796887

GROUND SURFACE ELEVATION* 780.1

TOP of WELL CASING or RISER PIPE
EL* 782.12 STICKUP 2.02

SURFACE SEAL
 TYPE of SURFACE SEAL Concrete MINIMUM THICKNESS 4 inches

ANNULAR SPACE SEAL TYPE
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

CASING
 TYPE of RISER MATERIAL (Flush Threaded) PVC SCH 40 INSIDE DIAMETER of RISER (inches) 2

TOP OF SEAL
 SEAL MATERIAL Bentonite SEAL START DEPTH 4.5

SCREEN
 TYPE of SCREEN MATERIAL PVC SCH 40 SLOT SIZE (inches) 0.010 INSIDE DIAMETER (inches) 2

FILTER PACK
 TYPE of SAND PACK AROUND SCREEN Sand No 1 TOP OF SAND PACK 6.5

TOP OF SCREENED INTERVAL
EL* 771.1 DEPTH 9

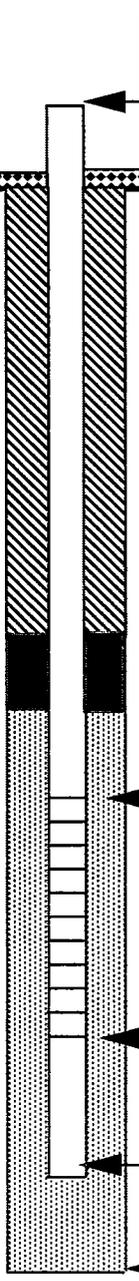
BOTTOM of SCREENED INTERVAL
EL* 756.1 DEPTH 24

BOTTOM of SUMP and WELL
EL* 756.1 DEPTH 24

BOTTOM of BOREHOLE
EL* 756.1 DEPTH 24



*All elevations (EL) are referenced to MSL. All depths and heights are given in feet and are referenced to the ground surface.



MONITORING WELL INSTALLATION DETAIL

PROJECT: Fort McClellan
LOCATION: Anniston, AL
CLIENT: USACE Mobile District
CONTRACTOR: Miller Drilling Co.
DRILLER: Ken Gobell
IT FIELD REPRESENTATIVE: Dennis Mayton

WELL NO: PPMP-66-MW04
DRILLING METHOD: Hollow Stem Auger
INSTALLATION DATE: 17-OCT-00
NORTHING: 1171851.94
EASTING: 671549.23
HORIZONTAL SURVEY DATUM: NAD83
VERTICAL SURVEY DATUM: NGVD88
JOB NO: 796887

GROUND SURFACE ELEVATION* 779.98

TOP of WELL CASING or RISER PIPE
EL* 781.9 STICKUP 1.92

SURFACE SEAL
 TYPE of SURFACE SEAL Concrete MINIMUM THICKNESS 4 inches

ANNULAR SPACE SEAL TYPE
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

CASING
 TYPE of RISER MATERIAL (Flush Threaded) PVC SCH 40 INSIDE DIAMETER of RISER (inches) 2

TOP OF SEAL
 SEAL MATERIAL Bentonite SEAL START DEPTH 2

SCREEN
 TYPE of SCREEN MATERIAL PVC SCH 40 SLOT SIZE (inches) 0.010 INSIDE DIAMETER (inches) 2

FILTER PACK
 TYPE of SAND PACK AROUND SCREEN Sand No 1 TOP OF SAND PACK 4

TOP OF SCREENED INTERVAL
EL* 772.98 DEPTH 7

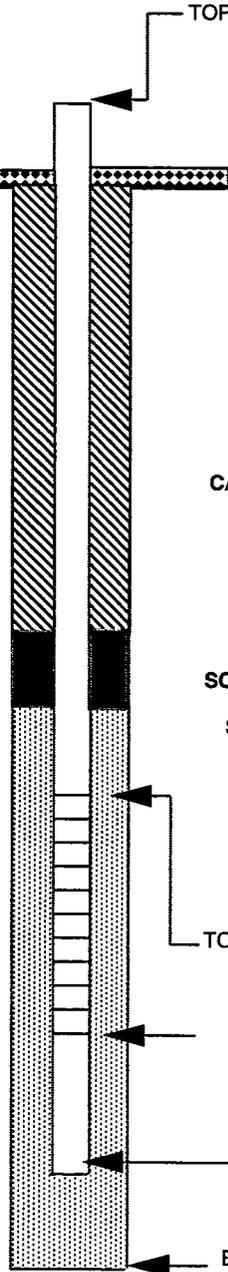
BOTTOM of SCREENED INTERVAL
EL* 757.98 DEPTH 22

BOTTOM of SUMP and WELL
EL* 755.98 DEPTH 24

BOTTOM of BOREHOLE
EL* 755.98 DEPTH 24



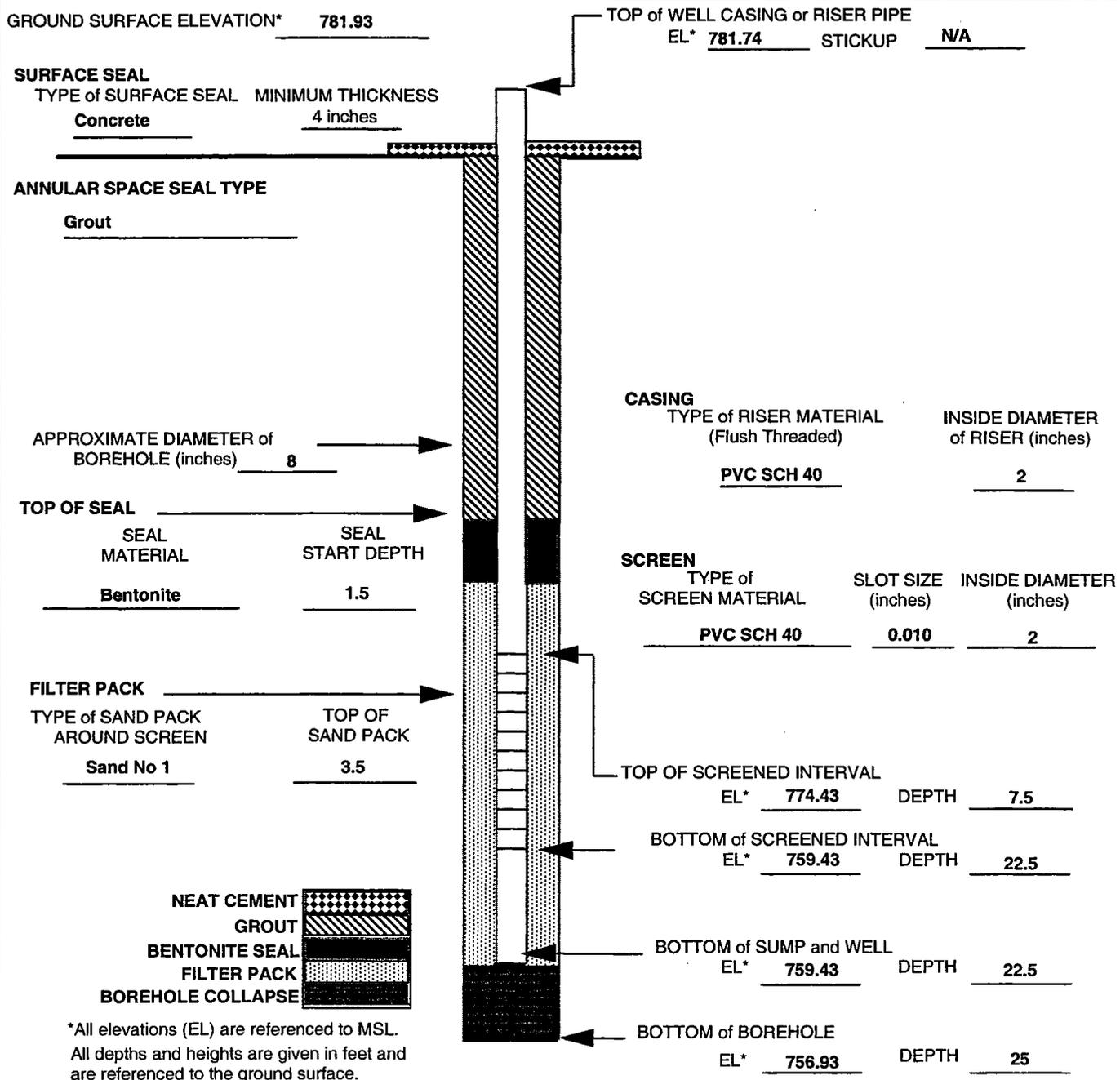
*All elevations (EL) are referenced to MSL. All depths and heights are given in feet and are referenced to the ground surface.



MONITORING WELL INSTALLATION DETAIL

PROJECT: Fort McClellan
LOCATION: Anniston, AL
CLIENT: USACE Mobile District
CONTRACTOR: Miller Drilling Company
DRILLER: Steven Gautney
IT FIELD REPRESENTATIVE: Adam Day

WELL NO: PPMP-66-MW14
DRILLING METHOD: Hollow Stem Auger
INSTALLATION DATE: 14-SEP-01
NORTHING: 1171522.34
EASTING: 671573.69
HORIZONTAL SURVEY DATUM: NAD83
VERTICAL SURVEY DATUM: NGVD88
JOB NO: 796887



*All elevations (EL) are referenced to MSL. All depths and heights are given in feet and are referenced to the ground surface.

October 21, 2025

Ms. Ashley T. Mastin, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Submission of *Site Specific Addendum Corrective Measures Implementation Plan - Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q, and Training Area T-31, Parcels 184(7) and 185(7)*

Dear Ms. Mastin:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is pleased to submit responses to ADEM comments dated March 25, 2025, associated with the *RCRA Facility Investigation and Site-Specific Addendum (SSA) Corrective Measures Implementation Plan (CMIP) for Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q, and Training Area T-31, Parcels 184(7) and 185(7)* dated November 2024 and a standalone SSA CMIP. Also, the MDA requests that this letter constitutes an Agreement modification request pursuant to Condition II.J of the Cleanup Agreement upon ADEM's concurrence with this document.

Two hard copies and an emailed copy have been provided to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC



Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (two paper copies)
Mr. Jason Odom, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files (one paper copy)

Response to ADEM Review Comments dated March 25, 2025
RE: RFI and SSA CMIP for Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q, and Training Area T-31, Parcels 184(7) and 185(7), dated Nov 14, 2024

General Comments 1 and 2 and Specific Comments 1 through 5 are resolved

Specific Comment 6

Page 8-2, Section 8.1.2.3. The text states that there are six major components of the technical approach of this project but only lists five. Please add the sixth component (included in the Site-Wide CMIP for Soil Remediation) as “Site grading, backfill (where necessary), and vegetarian restoration”.

MDA Response:

This site restoration component has been added.

Specific Comment 7

Page 8-2, Section 8.1.2.4. The text states in Lines 4-5 that “excavated areas will not be backfilled with clean soil because the area is not required to have a one-foot buffer of [munitions and explosives of concern] MEC-free soil...” However, in Lines 8-10, the text states that land use controls will be necessary due to chemicals in soil above human health residential standards and a potential for MEC presence. Please clarify.

MDA Response:

The one-foot MEC clearance areas are required to maintain a one-foot buffer of MEC free soils. However, the area planned for soil remediation is located within MRS-13, Tract 13-E which had a surface clearance performed because of the very low likelihood for the presence of MEC and therefore there is no requirement for maintaining a soil buffer. Environmental Covenant FY-12-01.01 established a prohibition on digging throughout MRS-13 to manage any residual MEC risk.

**Site Specific Addendum Corrective Measures Implementation Plan -
Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle
Range, Parcel 149Q, and Training Area T-31, Parcels 184(7) and
185(7)**

**Fort McClellan
Anniston, Alabama**

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

Prepared by:



283 Rucker Street, Bldg. 3165
Anniston, Alabama 36205
(256) 847-0780
Fax (256) 847-0905

**November 2024
Revised October 2025**

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LIST OF ACRONYMS AND ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
Army	United States Department of the Army
ASR	Archives Search Report
BCT	Base Closure Team
BRAC	Base Realignment and Closure
CA	Cleanup Agreement
CDTF	Chemical Defense Training Facility
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMIR	Corrective Measures Implementation Report
COC	Chemical of Concern
EBS	Environmental Baseline Survey
Eco-RBRG	Ecological risk-based remedial goal
EE/CA	Engineering Evaluation / Cost Analysis
ESE	Environmental Science & Engineering, Inc.
FY	Fiscal Year
IT	IT Corporation
LUC	Land Use Control
McClellan	McClellan, Anniston, Alabama
MDA	McClellan Development Authority
MEC	Munitions and explosives of concern
MES	Matrix Environmental Services, LLC
mg/kg	milligram per kilogram
mm	millimeter
MDA	McClellan Development Authority
MRS	Munitions Response Site
NFA	No Further Action
RCRA	Resource Conservation Recovery Act
RFI	RCRA Facility Investigation
Shaw	Shaw Environmental, Inc.
SI	Site Investigation
SWCMIP	Site-Wide Corrective Measures Implementation Plan
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
UXO	Unexploded Ordnance

1.0 PROJECT DESCRIPTION

1.1 Introduction

The purpose of this section is to provide specific information related to the soil contamination at the Former 37mm Anti-Tank Range, Parcel 230Q-X and Former Rifle Range, Parcel 149Q that will be used to address the characterization, removal, and disposal of metals impacted soils from the Site. These ranges were part of the Army normal operations at Fort McClellan and are located in the north-central part of the Main Post in Anniston, Alabama. The Former 37mm Anti-Tank Range was primarily used for small arms weapons training including .30 caliber M1 rifle and 37mm anti-tank artillery. No information was available regarding the Former Rifle Range such as dates of use, types of ordnance used or operation. Munitions and explosives of concern (MEC) clearance was performed in these ranges as documented in the *Munitions and Explosives of Concern Remediation After Action Report Munitions Response Sites (MRSs) 12 and 13, Revision 1* (Matrix Environmental Services, LLC [MES], 2014).

1.2 General Information

Facility Name/Alias:	Fort McClellan
Facility Address:	Fort McClellan, Calhoun County, Alabama
Facility ID (if EPA ID has been issued):	AL4210020562
Facility Contact:	Jason C. Odom
	McClellan Development Authority
	110 East 15th Street
	Anniston, Alabama 36201-3802
	(256) 238-6005
Geographic Coordinates:	33° 42' 17.82" N, 85° 46' 07.31" W
Type of Facility:	Former Army Training Installation
Size of Facility:	42,286 acres
Facility Location Map:	See Figure 1
Facility Site Map:	See Figures 2, 3
Current Owner	City of Anniston
Years of Operation	2025-Present
Former Owner:	McClellan Development Authority
Years of Operation:	2010-2025
Former Owner:	Fort McClellan Development Joint Powers Authority
Years of Operation:	1999-2010
Former Owner:	United States Army
Years of Operation:	1917-1999

1.3 Corrective Measures Objectives and Scope

The objective of these corrective measures is to combine soil remediation activities and land use controls (LUCs) to address metals-impacted soils. The proposed future land use of the Site is restricted access with occasional use for National Guard training and wildlife habitat open space. For the soil remediation activities, McClellan Development Authority (MDA) has elected to stabilize any soils failing toxicity characteristic leaching procedure within these ranges and obtain approval for disposal as non-hazardous waste. The specific cleanup level is based on land use and is the ecological cleanup level of 500 mg/kg for lead in the wildlife habitat area. These

corrective measures will also include the abandonment of all monitoring wells associated with the Former 37mm Anti-Tank Range, Former Rifle Range, and Training Area T-31 in accordance with Section B.5.2(c) in Appendix B of the *Alabama Environmental Investigation & Remediation Guidance Revision 4.0* (Alabama Department of Environmental Management [ADEM], 2017).

LUCs will be required following completion of soil remediation because some soils will remain with lead concentrations exceeding the residential use limit of 200 mg/kg. The MDA will implement these LUCs in accordance with the Cleanup Agreement (CA) outlined in Section 4.3.2.

The scope of these corrective measures is to remove the chemicals of concern (COCs), which at this site is lead only, from the Former 37mm Anti-Tank Range and Former Rifle Range to meet the cleanup levels. Based on the findings presented in the *Resource Conservation Recovery Act (RCRA) Facility Investigation, Former 37mm Anti-Tank Range, Parcel 230Q-X, Former Rifle Range, Parcel 149Q, and Training Area T-31, Parcels 184(7 and 185(7)* (MES, 2025), lead is the only COC at the ranges consistent with their use for small arms training and is the focus of the corrective measures.

1.3.1 Summary of the Need for Corrective Action

As identified in the CA (ADEM, 2019), the MDA is responsible for performing corrective measures for any areas where hazardous chemicals exceed those appropriate for the protection of human health and the environment.

1.3.2 Summary of Major Goals of Corrective Action

The overall purpose of this corrective action is to identify the procedures that will be used to excavate; stabilize, as necessary; and dispose of metals-contaminated soils from within the Former 37mm Anti-Tank Range and Former Rifle Range. The Site will be remediated to the Ecological Risk-Based Remedial Goal (Eco-RBRG) for lead (500 mg/kg) based on the future land use of the property.

1.3.3 List of Major Components of the Plan

There are six major components of the technical approach of this remedial project:

- A treatability study may be performed to identify the best stabilization formulation,
- Delineation of the horizontal and vertical extent of impacted soils,
- Excavation of treated and untreated soils that exceed cleanup levels,
- In-situ stabilization of soils that could exceed the RCRA toxicity characteristics,
- Transportation of excavated soils to the designated disposal facility, and
- Site grading, backfill (where necessary), and vegetation restoration.

1.3.4 Summary of How the Planned Action will Achieve Goals

Soils will be characterized and removed as needed to achieve the cleanup standards. Pre- and post-excavation confirmation samples will be collected to verify that targeted areas meet the cleanup level. Further details of these activities are in subsequent sections of this document. Excavated areas will not be backfilled with clean soil because the area is not required to have a one-foot buffer of MEC-free soil so there is no need to return the topography to pre-excavation

elevations. However, the contractor will grade the excavated areas so there are no fall hazards and the remaining soil may be amended or hydroseeded to promote vegetation restoration. The use of LUCs will be necessary at the Site following the completion of remediation activities due to presence of lead in soils above human health residential standards (200 mg/kg), a potential for MEC presence, or if another as yet unidentified condition exists at the site. Final LUCs and their extent cannot be fully identified until the completion of the remediation activities. The final LUCs shall be submitted under separate cover after the completion of the corrective measures.

2.0 SITE CHARACTERIZATION

The Site description and operational history are described in Section 2.1, site specific geology, soils, and hydrogeology are described in Section 2.2, and summary of previous investigations are described in Section 2.3.

2.1 Site Description and Operational History

The Former 37mm Anti-Tank Range (Parcel 230Q-X), Former Rifle Range (Parcel 149Q), and overlapping and adjacent Training Area T-31 (Parcels 184(7) and 185(7)) are located in the north-central area of McClellan north of Walt Phillips Road and west of the Chemical Defense Training Facility (CDTF). The parcel boundary for the Former Rifle Range, Parcel 149Q overlaps the eastern portions of Former 37mm Anti-Tank Range and Training Area T-31, Parcels 184(7) and 185(7) (Figure 2). Training Area T-31 Parcel 185(7) overlaps the Former 37mm Anti-Tank Range.

2.1.1 Anti-Tank Range, Parcel 230Q-X and Former Rifle Range, Parcel 149Q

The Final Environmental Baseline Survey (EBS) performed by Environmental Science & Engineering, Inc. (ESE) in 1998 identified the Anti-Tank Range on a 1946 Sanitary Sewage System map and the Former Rifle Range on a 1959 historical range map. The line of fire of the Former Rifle Range appeared to be to the southeast. No dates of use, types or ordnance used, or operation information was available regarding the Former Rifle Range.

During World War II, the Anti-Tank Range was constructed with a direction of fire to the east (ESE, 1998). The Anti-Tank Range was approximately 300 feet north to south and 1,200 feet in length east to west (approximately 9 acres). The range was equipped with a moving target track system and ESE noted an impact area at the east end of the parcel, as shown in Figure 4. By 1958, the track had been removed and a new firing line established for the M1 Rifle Transition Table, believed to be the Former Rifle Range. By 1967 the range was closed and listed as Training Area T-31 (United States Army Corps of Engineers [USACE], 2001).

The 1967 range map from the Archives Search Report (ASR) (USACE, 2001) lists chemical munitions as the range use. A variety of explosive devices were reportedly used such as 40mm grenade, Fougasse, smoke, flame throwers, light anti-tank weapons, and incendiary rockets, but with no report of toxic chemicals being used.

In December 2001, IT Corporation (IT) conducted site walks at the Anti-Tank Range and Former Rifle Range (IT, 2003). Two pop-up target areas were found in the center portion of the Antitank Range. The remnants of a platform located behind a berm were noted in the north-central portion of the Anti-Tank Range, and a steel pole with three pulleys was located behind a berm in the south-central portion (Figure 4). These items were likely components of the moving target system. Other surface features IT noted included: a shallow, east-west trending trench in the west-central portion of the Anti-Tank Range, a depression located approximately 1,200 feet downrange of the firing line for the Anti-Tank Range, and three down-range berms with one in the impact area noted by ESE (Figure 4). Several 35-gallon drums were also noted in the north-central portion of the Anti-Tank Range.

2.1.2 Training Area T-31, Parcels 184(7) and 185(7)

Training Area T-31 is comprised of two parcels, Parcels 184(7) and 185(7), and was used from 1957 to 1969 as a Technical Escort Reaction Area. Training Area T-31 occupies approximately 12 acres and partly overlaps historic firing ranges for 37mm, small arms, and machine guns. Parcel 185(7) overlaps the Anti-Tank Range, and Parcel 184(7) is located immediately north of Parcel 185(7), as shown in Figure 2. Training Area T-31 is located in a valley bordered by Cemetery Hill to the west, and Cave Creek flows to the south-southwest adjacent to the western boundary of the two parcels.

Training of Technical Escort personnel was reportedly conducted at Training Area T-31 using sarin and distilled mustard in quantities of 20 to 40 milliliters. When the chemical warfare training was deactivated in 1973, items used at these parcels were reportedly moved to Training Area T-38, Parcel 186(6) (Parsons Engineering Science, Inc., 2002).

A Site Investigation (SI) was conducted by Science Applications International Corporation in 1991 and included collection of soil, sediment, and surface water samples and field screening for chemical warfare materiel agents and their breakdown products. Neither field screening nor laboratory analysis detected any chemical warfare materiel agents or breakdown products in environmental media (Science Applications International Corporation, 1993).

In 2001, Parson Engineering Science, Inc. conducted an engineering evaluation / cost analysis (EE/CA) and included geophysical surveys, excavation of anomalies and soil sampling and analysis. Neither field screening nor laboratory analysis detected any chemical warfare materiel agents or breakdown products.

2.2 Site Specific Geology, Soils, and Hydrogeology

Regional geology, soils, and hydrogeology information was presented in the Site-Wide Corrective Measures Implementation Plan for Soil Remediation (SWCMIP) (MES, 2017). The information presented below was adapted from historical Army documents and the RFI (MES, 2025).

2.2.1 Site Specific Geology

Bedrock at the Site is mapped as Cambrian Shady Dolomite consisting of interlayered bluish gray or pale yellowish gray sandy dolomitic limestone and siliceous dolomite with coarsely crystalline, porous chert (Osborne et al., 1997).

Historical direct push and drilling activities at the Site indicates the residuum consists predominantly of light brown or gray to yellowish orange to reddish brown silt, clay, or silt/clay mixtures containing varying amounts of sand and sandstone gravel. The description of the soils encountered are generally consistent with the mapped Atkins, Jefferson, and Anniston soils. Hollow stem auger refusal was encountered at approximately 32 feet and 42.6 feet below ground surface at two monitoring well locations. Rock samples were not recoverable to verify bedrock lithology.

2.2.2 Site Specific Soil

Soils at the Site can generally be classified into three mapping units: Atkins silt loam, zero to 2 percent slopes in the eastern portion of the range; Jefferson gravelly fine sandy loam, 2 to 6 percent slopes, eroded in the north-central to northwestern portion of the range; and the Anniston gravelly clay loam, 6 to 10 percent slopes, severely eroded in the south-central to southwestern portion of the range (US Department of Agriculture [USDA], 1961).

The Atkins series consists of poorly drained, strongly acidic, friable soils that are developing in general alluvium from sandstone and shale. The surface soil is dark grayish-brown, mottled silt loam and the subsoil is light brownish-gray to light olive-gray, mottled silt or clay loam (USDA, 1961).

The Jefferson series consists of well-drained, strongly acidic, friable soils that have developed from old local alluvium that washed or sloughed from ridges of sandstone, shale, and Weisner quartzite. Fragments of sandstone and quartzite are on the surface and throughout the profile. The surface soil is dark grayish-brown fine sandy loam, and the subsoil is yellowish-brown, light fine sandy clay (USDA, 1961).

The Anniston series of soils consists of strongly acidic, deep, well-drained soils that have developed in old local alluvium from weathered sandstone, shale, and quartzite. Sandstone and quartzite gravel and cobbles are common throughout the soil. Most of the surface soil has been lost to erosion. The subsoil is reddish-brown to dark reddish-brown gravelly clay loam (USDA, 1961).

2.2.3 Site Specific Hydrogeology

A shallow residuum water-bearing zone was encountered in monitoring wells beneath the site ranging from approximately 0.5 to 10 feet below ground surface. Groundwater elevation data indicates groundwater flow generally follows topography and flows in a southwesterly direction across the Site toward Cave Creek with a horizontal hydraulic gradient of approximately 0.018 feet/foot.

2.3 Summary of Previous Investigations

An RFI was performed by MES (2025) to evaluate the nature and extent of contamination associated with the Former 37mm Anti-Tank Range (Parcel 230Q-X), Former Rifle Range (Parcel 149Q), and the overlapping and adjacent Training Area T-31 (Parcels 184(7) and 185(7)). Surface soil and subsurface soil sampling locations and corresponding lead concentrations are presented in Figures 5 and Figure 6, respectively. Lead was identified as the sole COC in surface soil at the Site, with concentrations exceeding the Eco-RBRG of 500 mg/kg, indicating a potential risk to ecological receptors.

Below is a summary of additional plans/investigations/reports performed and a brief summary of those documents.

Sitewide Corrective Measures Implementation Plan – A Corrective Measures Implementation Plan was prepared to describe the methods and procedures that will be used to address the remediation of metals-impacted soils from all the former small arms firing ranges and other

potential areas of concern located at the former Fort McClellan. The SWCMIP describes the general remediation process that will be used to perform the remediation of these areas, including additional characterization, excavation, disposal, and restoration of the remediation sites. Specifics regarding the remediation process may be found in the *Site-Wide Corrective Measures Implementation Plan for Soil Remediation, Fort McClellan, Anniston, Alabama* (MES, 2017).

After Action Report, MRS-12 and 13 – MEC remediation was conducted between May 2010 and April 2012. Portions of the Site overlap MRS-13, specifically Tracts D and E (Figure 2). MEC clearance to one foot was performed in Tract D and a surface clearance was performed in Tract E. Additional details of the MEC remediation of MRS-13 can be found in the *Munitions and Explosives of Concern Remediation After Action Report, Munitions Response Sites 12 and 13, Bravo Munitions Response Area, McClellan, Anniston, Alabama*, (MES, 2014).

Final Environmental Baseline Survey – The Environmental Baseline Survey was prepared by ESE in 1998 to document the current environmental condition of Fort McClellan. The EBS was conducted in accordance with the requirements of the Community Environmental Response Facilitation Act, amended Section 120 (h) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Chemical Warfare Materiel Engineering EE/CA – An EE/CA was performed at several chemical warfare materiel training sites, including Training Area T-31. A total of 12 soil samples were collected and analyzed for chemical warfare materiel agents and breakdown products; no concentrations were detected above the reporting limits. The report concluded that chemical warfare materiel is unlikely to be present at Training Area T-31 and was recommended for No Further Action with regard to chemical warfare materiel.

Site Investigation Training Area T-31 - Between 2001 and 2003, Shaw Environmental Inc. (Shaw) performed an SI at Training Area T-31. The Draft SI Report (Shaw, 2003) concluded that past operations at Training Area T-31 have not adversely impacted the environment and did not pose an unacceptable risk to human health and the environment. The SI results were presented to the Base Realignment and Closure (BRAC) Team (BCT) in April 2003. During the meeting, the BCT agreed to “No Further Action” (NFA) and unrestricted land reuse with regard to CERCLA-related hazardous substances for Parcel 184(7). Although the analytical data for Parcel 185(7) did not indicate contamination, the BCT recommended Parcel 185(7) be included in the investigation of the 37mm Anti-Tank Range, Parcel 230Q-X since it overlaps with the parcel.

Site Investigation Anti- Tank Range and Former Rifle Range – An SI was performed by IT in 2002. The SI included environmental sampling and analysis and monitoring well installation. Sampling consisted of the collection and analysis of 13 surface soil samples, 13 subsurface soil samples, 2 surface water, 2 sediment samples, and 3 groundwater samples. The SI information was provided to the BCT in November 2002. The BCT recommended the nature and extent of lead contamination in soil be defined.

Final Revision 2, Identification of Ecological Risk-Based Remedial Goals, Iron Mountain Road and Bains Gap Road Ranges – The Identification of Ecological Risk-Based Remedial

Goals document (Shaw, 2010) incorporated baseline ecological risk assessments and screening level risk assessments at the Iron Mountain Road and the Bains Gap Road ranges to determine appropriate ecological remedial goals for site media.

3.0 CONTAMINANT FATE AND TRANSPORT

3.1 Contaminant of Concern

Lead is the only COC identified in the RFI in surface soils and is the metal most commonly associated with small arms ranges.

3.2 Affected Media

Contaminated media at the Site consists of surface soil.

3.3 Extent and Distribution of Contaminated Media

The extent of lead-impacted soil exceeding the Eco-RBRG of 500 mg/kg is shown in Figure 7. Although the concentration of lead in soil samples collected in 2023 were below 500 mg/kg at locations AT-230QX-SS-E05 and HR-230Q-MW03, delineation grids (Figure 8) have been extended to these areas because previous sampling results indicated lead levels above 500 mg/kg, warranting additional assessment during remedial activities to evaluate the need for potential treatment. We also note the maximum chromium concentration in the surficial soil samples collected in 2001-2002 were below the background screening value of 37 mg/kg. However, three of the 2023 chromium results were (AT-230QX-SS-011 [47 mg/kg]; AT 230QX-SS-012 [49 mg/kg]; and AT-230QX-SS-013 [91 mg/kg]) were higher than the maximum observed in 2001-2002 and above the background screening value. The three samples occur in a line adjacent to the berm and are associated with lead concentrations of 599 mg/kg to 1,420 mg/kg in 2012 and 680 to 1,900 mg/kg in 2023, all above the Eco-RBRG of 500 mg/kg. Thus, the higher chromium concentrations at this location co-occur with high lead concentrations and appear to be associated with the remnant target activities and will be remediated as part of the lead-contaminated soil remediation.

The area encompassing the delineation grids was previously surface cleared of munitions as part of the MRS-13 remediation and has a covenant in place prohibiting intrusive activities without unexploded ordnance (UXO) support. The vertical extent of metals remediation will not be limited in depth based on the low likelihood of the presence of residual munitions in this area.

3.4 Determination of COCs

The RFI identified lead in soil to be of potential risk to the environment through a streamlined human health and ecological risk assessment that incorporated ADEM and US Environmental Protection Agency Region IV guidelines. Groundwater, surface water, and sediment were not identified as media of concern.

4.0 CORRECTIVE ACTION

4.1 Design Objectives

The objective of the corrective measures is to address lead in soils at the Site to mitigate potential human health and ecological risks.

4.1.1 Remediation Goal

The target remedial goal has been designed to ensure the protection of human health and the environment. The goal shown below is based on Eco-RBRGs. The ecological remedial goal was determined in the *Final – Revision 2, Identification of Ecological Risk-Based Remedial Goals, Iron Mountain Road and Bains Gap Road Ranges* (Shaw, 2010). This cleanup level is based on restricted access with occasional use for National Guard training and wildlife habitat open space.

Table 1 Cleanup Level for Soil

Soil COC	Ecological Cleanup Level (mg/kg)	Maximum Detected Concentration (mg/kg)
Lead	500	1,900

4.1.1.1 Anti-Tank Range, Parcel 230Q-X and Former Rifle Range, Parcel 149Q

The Anti-Tank Range and Former Rifle Range will be remediated as described in the SWCMIP. The vertical extent of remediation will not be limited and will be performed until post-excavation confirmation samples achieve the cleanup level.

4.1.1.2 Training Area T-31, Parcels 184(7) and 185(7)

Previous investigations and studies have concluded that chemical concentrations in site media do not present a risk to human health or the environment. Therefore, no remediation is required; however, LUCs will be implemented to prohibit residential development and the use of groundwater.

4.1.2 Projected Time Frame for Remedy and Effectiveness Reporting

The time frame for remediation will vary depending on site accessibility and contractor availability. It is anticipated that the remediation project will take less than one year to complete field activities, thus it is expected that no effectiveness monitoring reports will be required during the implementation of the corrective measures.

4.2 Regulatory Requirements

The primary regulatory driver for this corrective action is the CA between ADEM and the MDA (ADEM, 2019). The primary regulatory requirements are the state and federal rules and regulations pertaining to RCRA and corrective measures and ADEM guidance manuals, specifically:

- ADEM Division 14 (Land Division - Hazardous Waste Program) Rules (ADEM Administrative Code r. 335-14);
- Alabama Law under Title 22 of the Code of Alabama including the Alabama Hazardous Wastes Program;
- Alabama Environmental Investigation & Remediation Guidance (2017);

- Alabama Hazardous Waste Management and Minimization Act, Code of Alabama, 1975, as amended, §§ 22-30-1 to 22-30-24;
- Code of Federal Regulations (CFR) Title 40 (40 CFR Parts 260, 261, & 268);
- Alabama Uniform Environmental Covenants Act, Code of Alabama, 1975, as amended, §§ 22-22A-5; and
- Alabama State Soil and Water Conservation Committee guidance including the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas* (2018).

The remediation contractor will also obtain the necessary city, county, and state permits including filing a Notice of Intent (if required) and other permit requirements under Alabama Construction General Permit (General Permit Number ALR100000) as part of National Pollutant Discharge Elimination System requirements.

4.3 Reporting

4.3.1 Corrective Measures Implementation Report (CMIR)

The selected contractor will begin working on the CMIR during site excavation activities. All data necessary for the report will be carefully gathered and documented, including photographs, survey information, field screening results, laboratory analytical data, weight tickets, etc. As remedial excavations are completed, the corresponding sections of the report will be written in draft form. Once remediation activities are complete, these sections will be compiled and polished into a final document. This report represents the final documentation of the site remediation including confirmation sampling results that indicate that “NFA” criteria have been met and upon completion of work activities will be submitted to MDA/MES and ADEM for review.

4.3.2 Environmental Covenant

Current plans for the reuse of the property include restricted access with occasional use for National Guard training and wildlife habitat open space. The remediation to ecological standards will require institutional controls in the form of a restrictive covenant and will be submitted under separate cover. There is currently one environmental covenant that will be affected by the soil remediation. Environmental Covenant Fiscal Year (FY)-12-01.01 was recorded on February 9, 2018, and currently prohibits the use of groundwater and addresses the UXO clearance at MRS-13. The soil remediation will be conducted in the areas covered by this covenant. Environmental Covenant FY-12-01.01 will require modification at the completion of soil remediation to prohibit residential development and use of groundwater. These LUCs will be in addition to any existing controls currently in place. Below is an example of the draft language that may be used for the modification of the existing covenant:

Residential use of the property is prohibited within the area identified on the boundary map consisting of the entire Parcels 230Q-X, 149Q, 184(7), and 185(7). Residential uses include, but are not limited to, housing, daycare facilities, playgrounds and schools (excluding education and training programs for persons over 18 years of age), and assisted living facilities.

The use of groundwater is prohibited beneath the property for any purpose other than groundwater monitoring is prohibited in Parcels 230Q-X, 149Q, 184(7), and 185(7).

5.0 CONCLUSIONS AND RECOMMENDATIONS

This Site Specific Addendum to the SWCMIP for Soil Remediation (MES, 2017) presents the recommended approach for addressing metal-contaminated soil at the Former 37mm Anti-Tank Range, Parcel 230Q-X and Former Rifle Range, Parcel 149Q. The CMIR will evaluate project goals and evaluate project effectiveness. In addition, any recommendations for further corrective measures will be included in this report; however, it is not anticipated that additional corrective measures will be necessary given the scope of this work.

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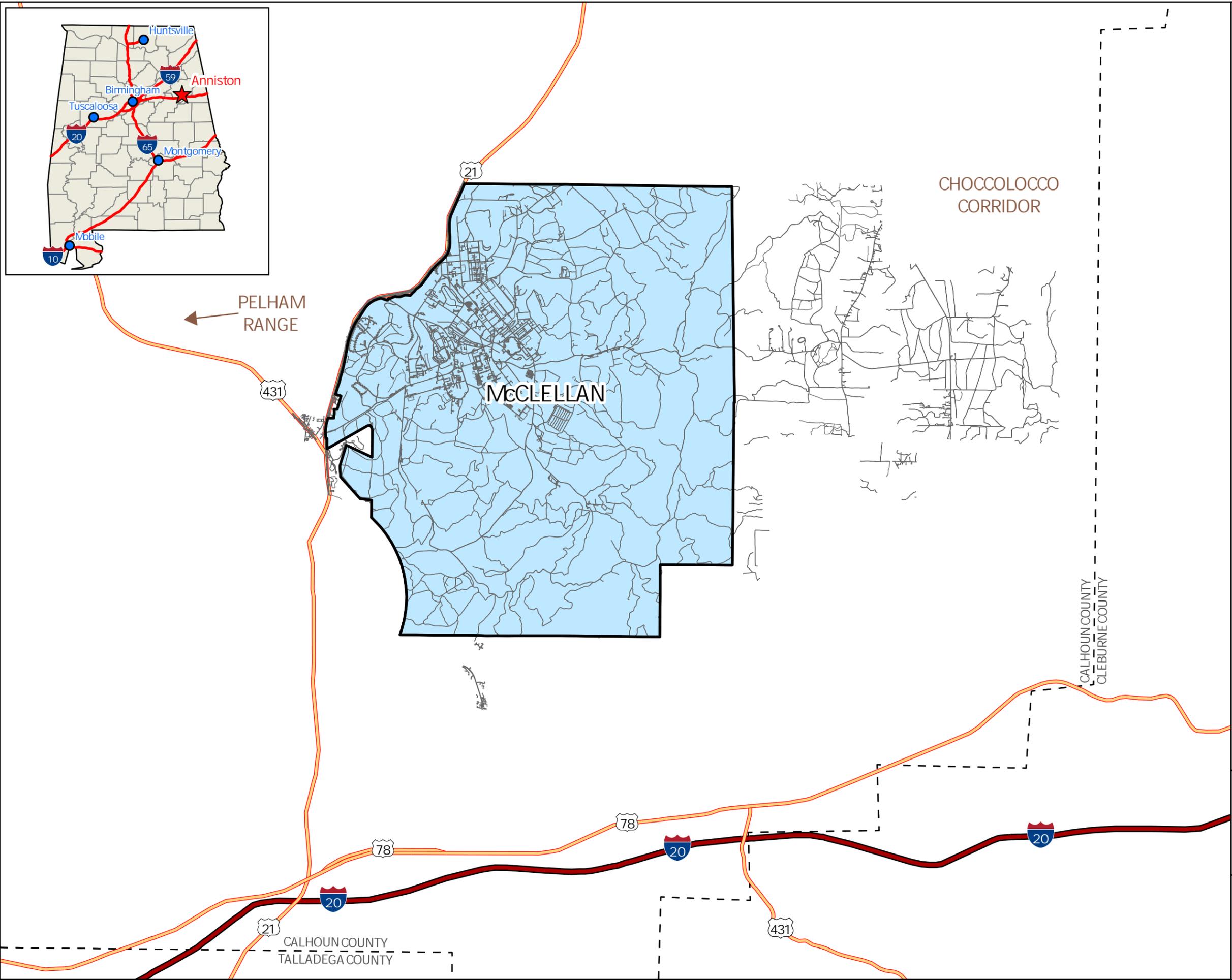
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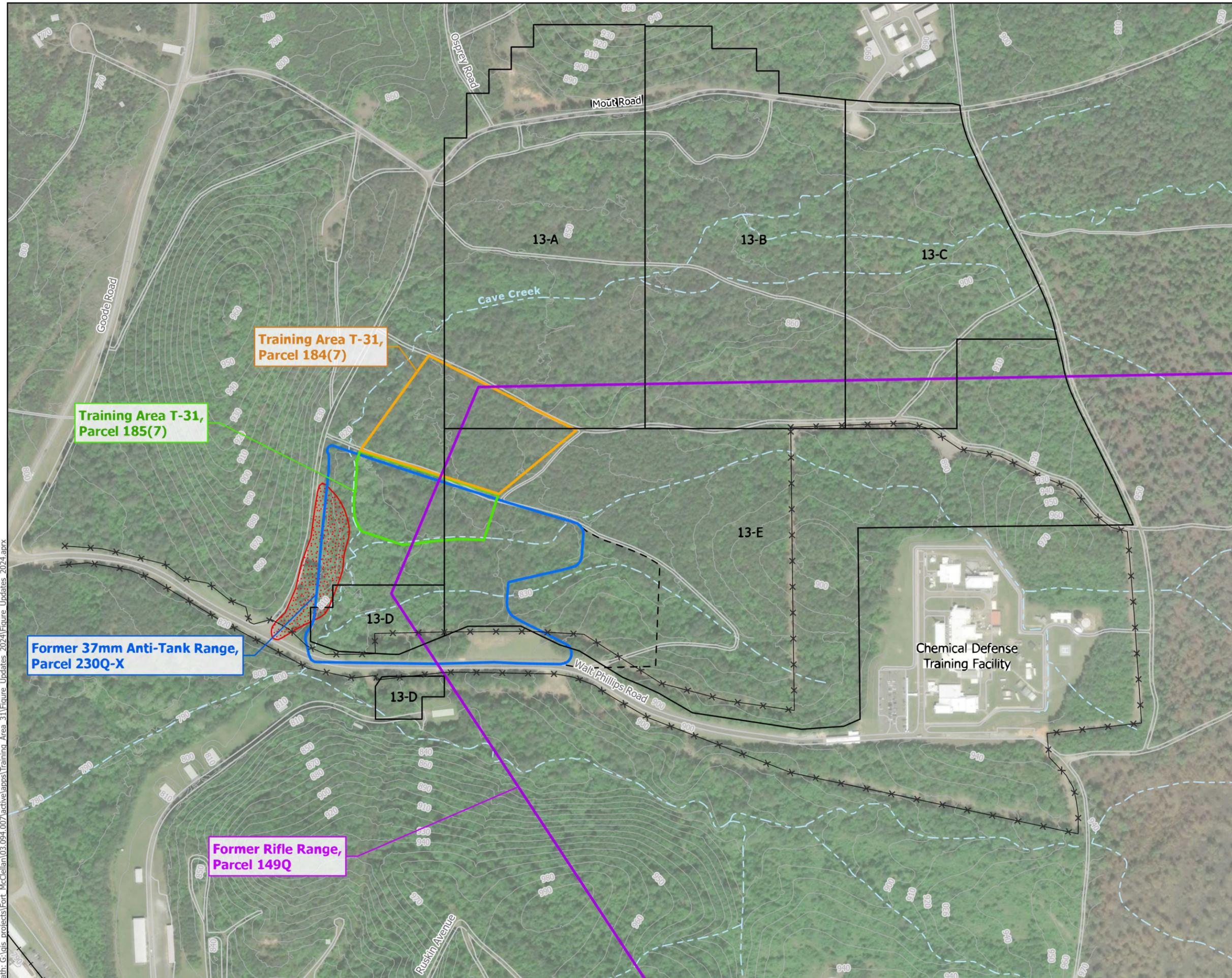
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- Legend
- Major Highway
 - Highway
 - Local Road
 - Fort McClellan
 - County

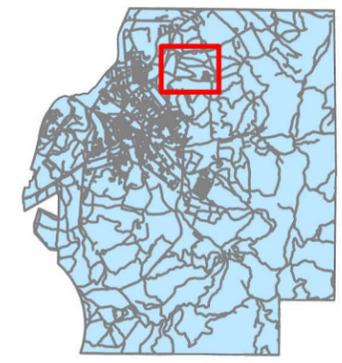
Figure 1
Location Map
McClellan, Anniston, Alabama





Legend

- ✕— Fence/Property Line
- Local Road
- Railroad
- ~ Stream
- ~ Index Contour (10 ft)
- Building (white)
- 149Q
- 184(7)
- 185(7)
- 230Q-X
- MRS-13 Tracts
- ▨ Fill Area North of Landfill 2, Parcel 230(7)
- ⋯ Extended Area of Investigation

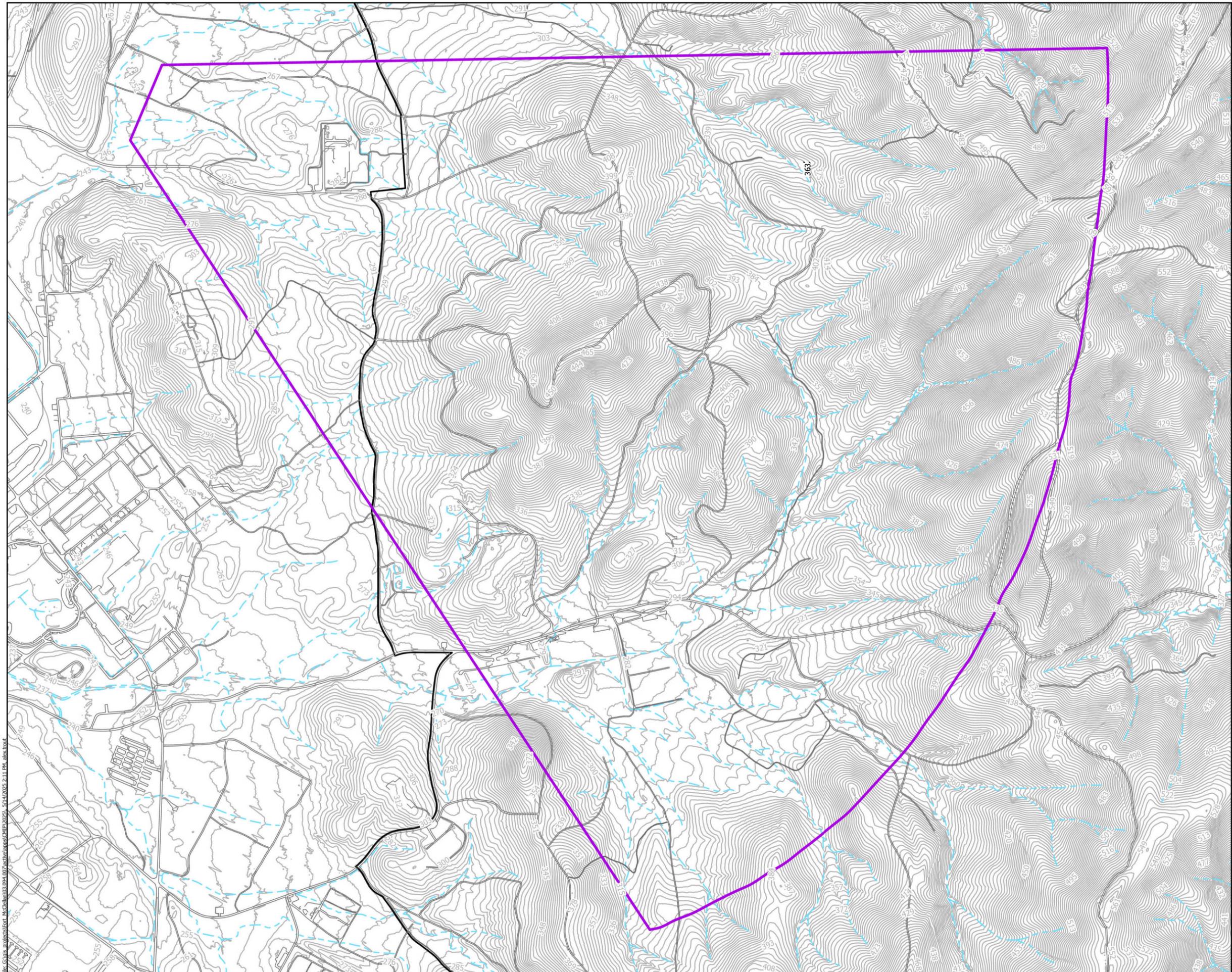


Source: Maxar, 2024.

Figure 2
Parcel Location Map
McClellan, Anniston, Alabama



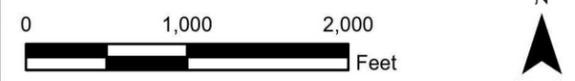
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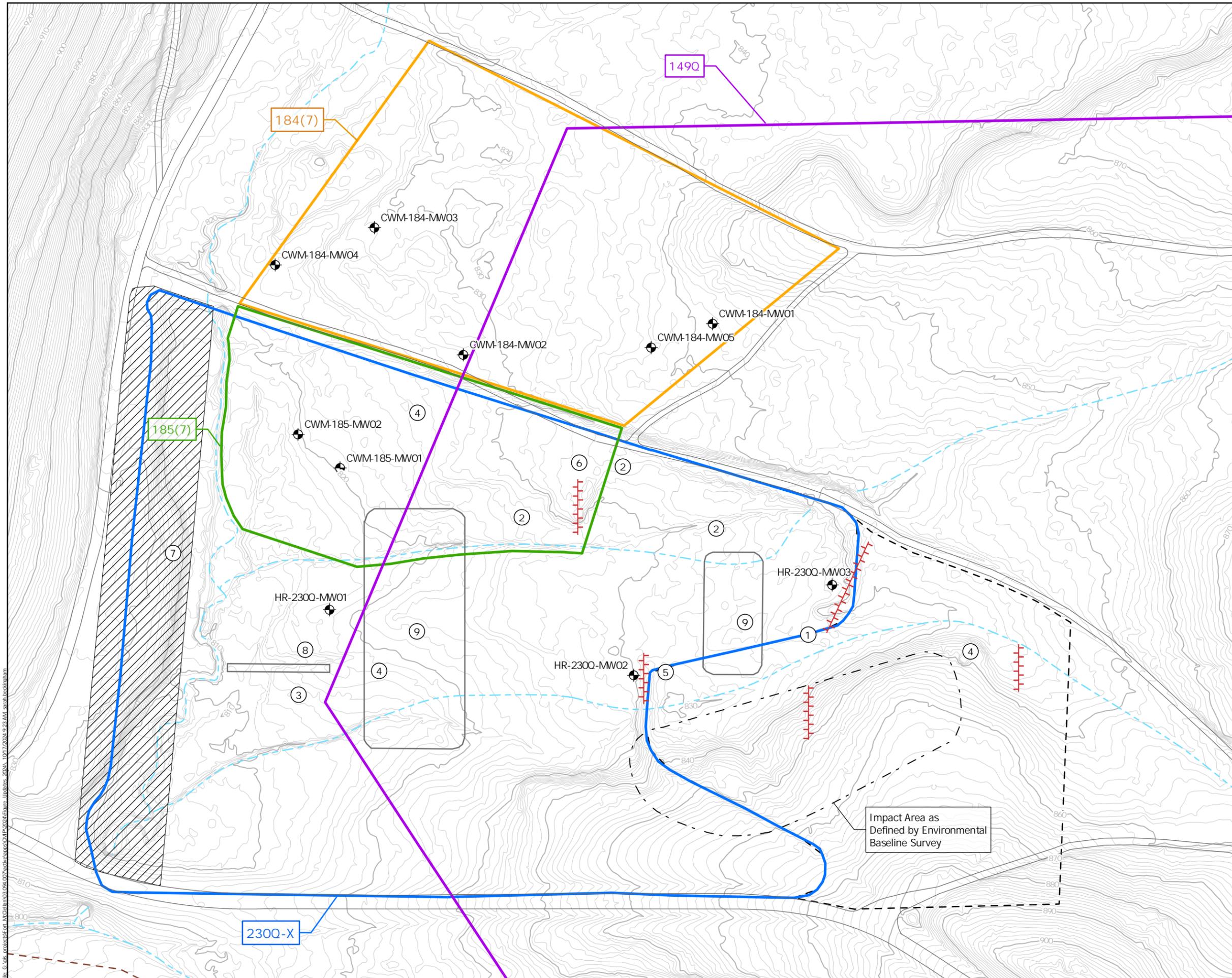
- Legend**
- Parcel 149Q
 - ESCA Property Boundary
 - Stream
 - Road
 - Index Contour (3 m)

Source: Final Environmental Baseline Survey, Fort McClellan, Alabama (1998), Figure 2 Non-CERLA Issues

Figure 3
Parcel 149Q Location Map
McClellan, Anniston, Alabama



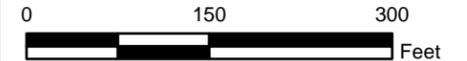
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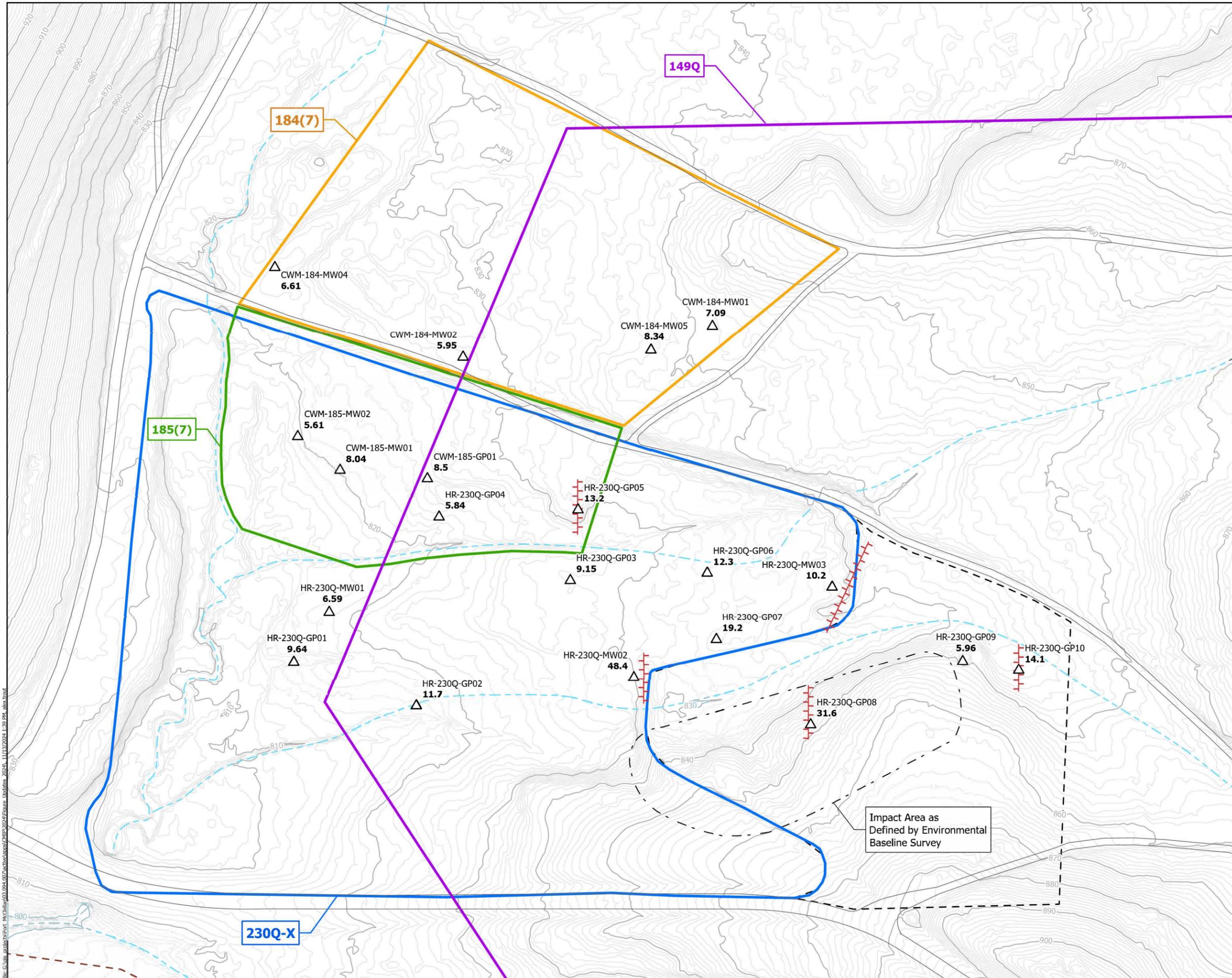
- Legend
- Physical Features Observed**
- ① 5-Gallon Plastic Lid
 - ② 35-Gallon Drum
 - ③ Shallow Pits
 - ④ Depression
 - ⑤ Steel Pole with 3 Pulleys
 - ⑥ Remnants of Platform
 - ⑦ 5-Gallon Smoke Pots - From Fill Area
 - ⑧ Trench
 - ⑨ Pop-Up Target Area
 - ⊕ Monitoring Well
 - ⊕ Berm
 - - - Fence
 - - - Stream
 - Road
 - Index Contour (10 ft)
 - Intermediate Contour (1 ft)
 - 149Q
 - 184(7)
 - 185(7)
 - 230Q-X
 - Extended Area of Investigation
 - Impact Area as Defined by Environmental Baseline Survey
 - Firing Line

Source: IT Corporation, 2003

Figure 4
Site Map
McClellan, Anniston, Alabama



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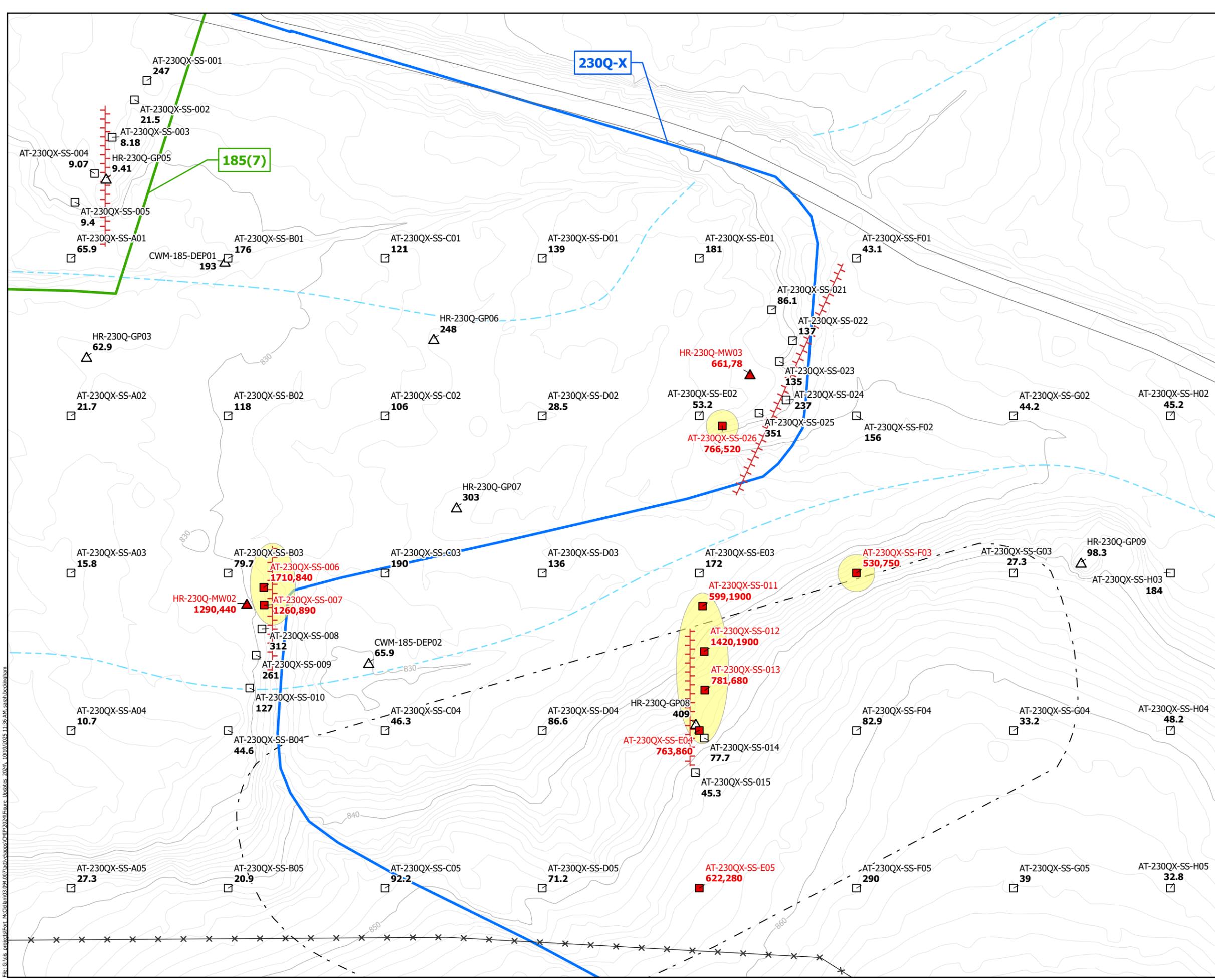
Legend

- △ Subsurface Sample Location and Lead Concentration (mg/kg) collected in 2001/2002
 - ⊕ Berm
 - Road
 - - - Fence
 - Stream
 - Index Contour (10 ft)
 - Intermediate Contour (1 ft)
 - 149Q
 - 184(7)
 - 185(7)
 - 230Q-X
 - Extended Area of Investigation
 - Impact Area as Defined by Environmental Baseline Survey
- Contours_NORTH
- FEATURE
- Index Contour (10 ft)
 - Intermediate Contour (1 ft)

Figure 6
Subsurface Soil Sample Location Map and Lead Concentration
McClellan, Anniston, Alabama



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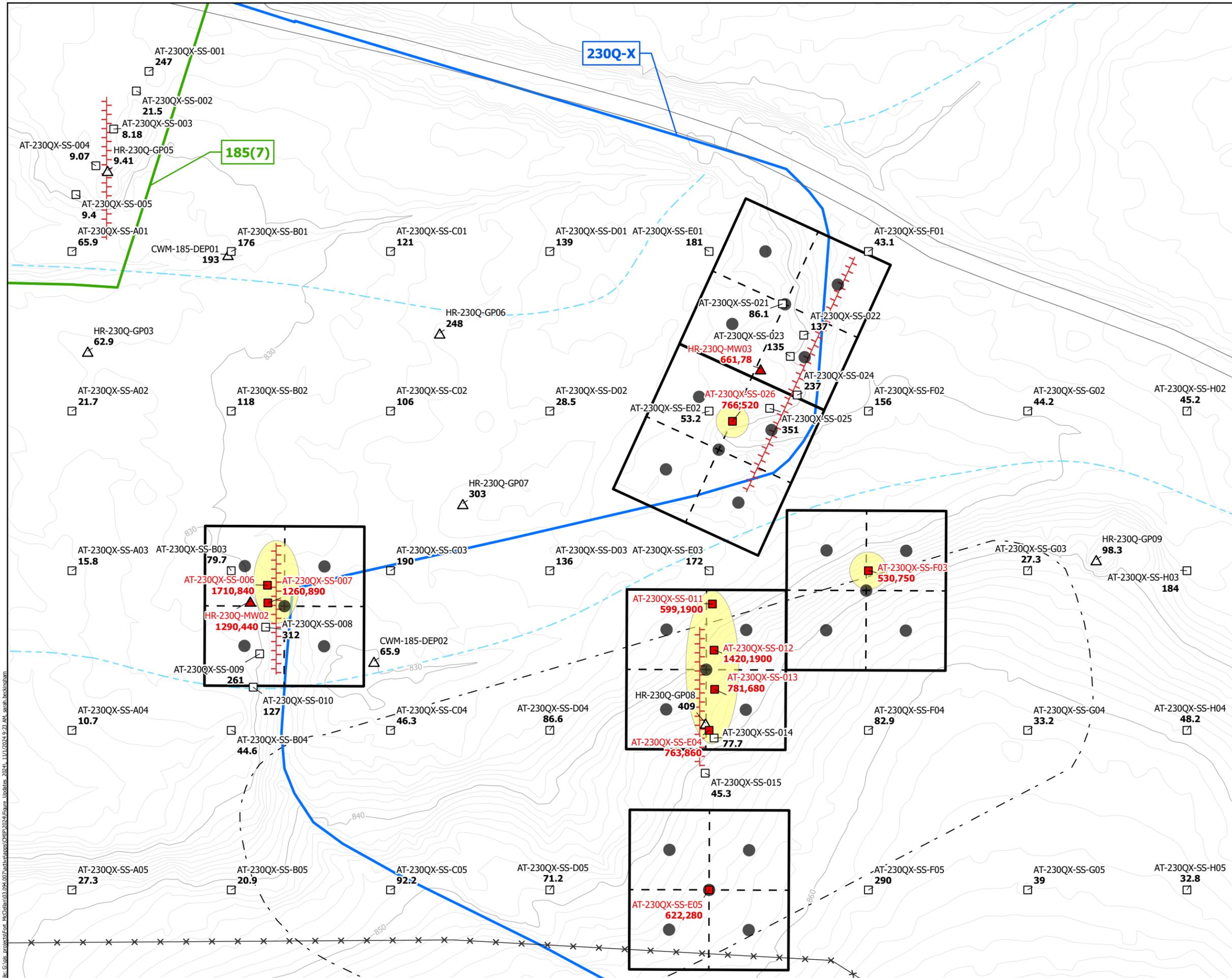
- Legend**
- 500 mg/kg
 - Surface Sample Location and Lead Concentration (mg/kg) collected in 2001/2002
 - Surface Sample Location and Lead Concentration (mg/kg) collected in 2012
 - Surface Sample Location and Lead Concentration (mg/kg) collected in 2002, Re-collected in 2023
 - Surface Sample Location and Lead Concentration (mg/kg) collected in 2012, Re-collected in 2023
 - Road
 - ⋈ Berm
 - × Fence/Property Line
 - Stream
 - Index Contour (10 ft)
 - Intermediate Contour (1 ft)
 - 185(7)
 - 230Q-X
 - - - Impact Area as Defined by Environmental Baseline Survey

Note: Samples Collected in 2023 for Lead Analysis are 5-Point Composites.

Figure 7
 Surface Soil 500 mg/kg
 Lead Isocontour Map
 McClellan, Anniston, Alabama



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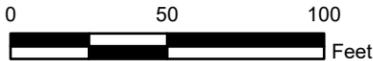


Legend

- 500 mg/Kg
- Delineation Grid (100 ft x 100 ft) and Composite Locations
- Surface Sample Location and Lead Concentration (mg/Kg) collected in 2001/2002
- Surface Sample Location and Lead Concentration (mg/Kg) collected in 2012
- Surface Sample Location and Lead Concentration (mg/Kg) collected in 2002, Re-collected in 2023
- Surface Sample Location and Lead Concentration (mg/Kg) collected in 2012, Re-collected in 2023
- Road
- Berm
- Fence/Property Line
- Stream
- Index Contour (10 ft)
- Intermediate Contour (1 ft)
- 185(7)
- 230Q-X
- Impact Area as Defined by Environmental Baseline Survey

Note: Samples Collected in 2023 for Lead Analysis are 5-Point Composites.

Figure 8
 Surface Soil Lead Isocontours
 and Delineation Grid Map
 McClellan, Anniston, Alabama


 0 50 100 Feet



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