

Appendix A

Definitions

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Anomaly – Any identified subsurface mass that may be geologic in origin, unexploded ordnance (UXO), or some other man-made material. Such identification is made through geophysical investigation and reflects the response of the sensor used to conduct the investigation. (Handbook on the Management of Munitions Response Actions, Interim Final, EPA, May 2005)

Anomaly Avoidance – Techniques employed on property known or suspected to contain unexploded ordnance, other munitions that may have experienced abnormal environments (e.g., discarded military munitions), munitions constituents in high enough concentrations to pose an explosive hazard, or chemical agents, regardless of configuration, to avoid contact with potential surface or subsurface explosive or CA hazards, to allow entry to the area for the performance of required operations. (AF Manual 91-201 and DOD 6055.9-STD)

Applicable or Relevant and Appropriate Requirements – Applicable requirements are cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under Federal or state environmental law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstance found at a CERCLA site. Relevant and appropriate requirements are cleanup standards that, while not “applicable,” address situations sufficiently similar to those encountered at a CERCLA site where their use is well suited to the particular site. (National Oil and Hazardous Substances Pollution Contingency Plan [NCP], 40 CFR Part 300, July 2005)

Chemical Warfare Materiel (CWM) – Items generally configured as a munition containing a chemical compound that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (e.g., hydrogen cyanide [AC], cyanogen chloride [CK], or carbonyl dichloride [called phosgene or CG]) configured as a military munition. CWM does not include riot control devices, chemical defoliants and herbicides, industrial chemicals (e.g., AC, CK, or CG) not configured as a munition, smoke and other obscuration producing items, flame and incendiary producing items, or soil, water, debris or other media contaminated with low concentrations of chemical agents where no CA hazards exist. (MRSPP, 32 CFR Part 179, October 2005)
CWM contains the following four subcategories:

- 1) **CWM, explosively configured** – All UXO or DMM that contain a CA fill and any explosive component. Examples are M55 rockets with CA, the M23 VX mine, and the M360 105-mm GB artillery cartridge.
- 2) **CWM, non-explosively configured** – All UXO or DMM that contain a CA fill but that do not contain any explosive components. Examples are any chemical munitions that do not contain explosive components and VX or mustard agent spray canisters.
- 3) **CWM, bulk container** – All discarded (e.g., buried) non-munitions-configured containers of CA (e.g., a ton container) and CAIS K941, toxic gas set M-1 and K942, toxic gas set M-2/E11.
- 4) **Chemical Agent Identification Sets (CAIS)** – Military training aids containing small quantities of various CA and other chemicals. All forms of CAIS are scored the same in this rule, except CAIS K941, toxic gas set M-1; and CAIS K942, toxic gas set M-2/E11, which are considered forms of CWM, bulk container, due to the relatively large quantities of agent contained in those types of sets.

Closed Range – A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a Component. (MGDERP, September 2001)

Conceptual Site Model (CSM) – The CSM is a description of a site and its environment that is based on existing knowledge. It describes sources of MEC or hazardous, toxic, and radioactive waste at a site; actual, potentially complete, or incomplete exposure pathways; current or reasonably anticipated future land use; and potential receptors. The source-receptor interaction is a descriptive output of a CSM. The CSM serves as a planning instrument, a modeling and data interpretation aid, and a communication device among the Project Team.

Defense Sites – Locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))

Components – The Office of the Secretary of Defense (OSD), the Military Departments, the Defense Agencies, the Department Field Activities, and any other Department organizational entity or instrumentality established to perform a government function. (MRSPP, 32 CFR Part 179, October 2005)

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

Explosive Ordnance Disposal (EOD) – The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded explosive ordnance. It may also include explosive ordnance that has become hazardous by damage or deterioration.

Explosive Ordnance Disposal (EOD) Personnel – Active duty military personnel of any military service branch that are trained in the detection, identification, field evaluation, safe rendering, recovery, and final disposal of explosive ordnance and of other munitions that have become an imposing danger, for example, by damage or deterioration. (Handbook on the Management of Munitions Response Actions, Interim Final, EPA, May 2005)

Facility – A building, structure, or other improvement to real property, in relation to work classification. (10 U.S.C. 2801)

Formerly Used Defense Sites (FUDS) – Facility or site (property) that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to the contamination by hazardous substances. By the DoD Environmental Restoration Program (ERP) policy, the FUDS program is limited to those real properties that were transferred from DoD control prior to 17 October 1986. FUDS properties can be located within the 50 States, District of Columbia, Territories, Commonwealths, and possessions of the United States. (FUDS Program Policy, ER 200 3-1, May 2004)

Hazardous Substance – (A) Any substance designated pursuant to Section 1321(b)(2)(A) of title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of title 33, (E) any hazardous air pollutant listed under Section 112 of the Clean Air Act

[42 U.S.C. 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to Section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). (CERCLA, 42 U.S.C. § 9601 et seq.)

Installation (as defined by the Restoration Management Information System [RMIS] Data Element Dictionary for a Federal Facility Identification [FFID]) – The FFID number is a unique identifier, assigned to an installation/property in RMIS. The 14-character aggregate string is used in RMIS as the key column for each data table and is used to track all associated records for each installation. An installation may have a single range or multiple ranges (and each range may have more than one site contained within its boundaries) and a single or multiple sites, not associated with a range. (Management Guidance for the Defense Environmental Restoration Program, September 2001)

Military Installation – A base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a Military Department, or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense, without regard to the duration of operational control. (10 U.S.C. 2801)

Military Munitions – All ammunition products and components produced for or used by the Armed Forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, and demolition charges; and devices and components of any item thereof. The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e)(4))

Military Range – Designated land and water areas set aside, managed, and used to research, develop, test, and evaluate military munitions, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas. (40 CFR 266.201)

Munitions and Explosives of Concern (MEC) – Military munitions that are 1) unexploded ordnance, as defined in 10 U.S.C. 101(e)(5); 2) abandoned or discarded, as defined in 10 U.S.C. 2710(e)(2); 3) MC (e.g., TNT, RDX) present in soil, facilities, equipment, or other materials in high enough concentrations so as to pose an explosive hazard. (MRSP, 32 CFR Part 179, October 2005)

Munitions Constituent (MC) – Any material that originates from UXO, DMM, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. 2710(e)(4))

Munitions Debris – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal. (DoD 6055.9-STD)

Munitions Response – Response actions, including investigation, removal actions, and remedial actions, to address the explosives safety, human health, or environmental risks presented by UXO, DMM, or MC or to support a determination that no removal or remedial action is required. (MRSP, 32 CFR Part 179, October 2005)

Munitions Response Area (MRA) – Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas. A munitions response area is comprised of one or more munitions response sites. (MRSP, 32 CFR Part 179, October 2005)

Munitions Response Site (MRS) – A discrete location within an MRA that is known to require a munitions response. (MRSP, 32 CFR Part 179, October 2005)

Operational Range – A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities, or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101(e)(3))

Ordnance and Explosives (OE) – Military munitions that have been abandoned, expelled from demolition pits or burning pads, lost, discarded, or buried. These include dud-fired UXO, soil presenting explosive hazards, and buildings with explosives residues that present explosion hazards. Note: The term OE has been replaced with the term Munitions and Explosives of Concern (MEC) in more recent publications.

Other than Operational Range – A closed, transferred, or transferring range.

Pollutant and Contaminant – These terms include, but are not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term pollutant or contaminant shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of paragraph (14) and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). (CERCLA, 42 U.S.C. § 9601 et seq.)

Range Activities – Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the Armed Forces in the use and handling of military munitions, other ordnance, and weapons systems. (10 U.S.C. 101(3)(2))

Relative Risk – The evaluation of individual sites to determine high, medium, or low relative risk to human health and the environment, based on contaminant hazards, migration pathways and receptors, in accordance with the DoD's Risk-Based Site Evaluation Primer. (MGDERP, September 2001)

Removal – The cleanup or removal of released hazardous substances from the environment. Such actions may be taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under Section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act [42 U.S.C. 5121 et seq.] The requirements for removal

actions are addressed in 40 CFR §§300.410 and 300.415. The three types of removals are emergency, time-critical, and non-time critical removals. (CERCLA, 42 U.S.C. § 9601 et seq.) There are three types of removals:

- 1) **Emergency** – Emergency removal or response is performed when an immediate or imminent danger to public health or the environment is present and action is required within hours. Trained responders identify the explosive threat and make the decision as to whether the munitions and explosive of concern should be moved or blown in place and ensure the threat is removed safely and expeditiously.
- 2) **Time-critical** – A response to a release or threat of release that poses such a risk to public health (serious injury or death), or the environment, that cleanup or stabilization actions must be initiated within six months.
- 3) **Non-time critical** – An action initiated in response to a release or threat of a release that poses a risk to human health and welfare, or the environment. Initiation of removal cleanup actions may be delayed for six months or more.

Risk Reduction – The movement of any site from a higher to lower relative risk category as a result of natural attenuation, interim remedial, remedial, or removal actions taken. (DoD Instruction 4715.7, Environmental Restoration Program, April 1996)

Site (as defined in the Restoration Management Information System Data Element Dictionary for a SITE ID) – A unique name given to a distinct area of an installation containing one or more releases or threatened releases of hazardous substances treated as a discreet entity or consolidated grouping for response purposes. Includes any building, structure, impoundment, landfill, storage container, or other site or area where a hazardous substance was or has come to be located, including formerly used sites eligible for building demolition/debris removal. Installations and ranges may have more than one site. (MGDERP, September 2001)

Stakeholder – Groups or individuals who were interested in, concerned about, affected by, who had a vested interest in, or would be involved in the munitions response at an MRA/MRS.

Transferred Range – A property formerly used as a military range that is no longer under military control and had been leased by the DoD, transferred, or returned from the DoD to another entity, including federal entities. This includes a military range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager. (MGDERP, September 2001)

Transferring Range – A military range that is proposed to be transferred or returned from the DoD to another entity, including federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, act of Congress, public land order, special-use permit or authorization, right-of-way, or other instrument issued by the federal land manager or property owner. An operational or closed range will not be considered a “transferring range” until the transfer is imminent. (MGDERP, September 2001)

Unexploded Ordnance (UXO) – Military munitions that have been primed, fuze, 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, installations, personnel, or material, and remain unexploded either by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5))

UXO Technicians – Personnel who are qualified for and filling Department of Labor, Service Contract Act, Directory of Occupations, contractor positions of UXO Technician I, UXO Technician II, and UXO Technician III. (Department of Defense Explosive Safety Board TP18, December 2004)

X-Ray Fluorescence - XRF is a method that uses x-ray tubes to irradiate soil samples with x-rays. When an atom absorbs the source x-rays, the incident radiation dislodges electrons from the innermost shells of the atom, creating vacancies. The electron vacancies are filled by electrons cascading in from outer electron shells. Electrons in outer shells have higher energy states than inner shell electrons, and the outer shell electrons give off energy as they cascade down into the inner shell vacancies. This rearrangement of electrons results in emission of x-rays characteristic of the given atom. The emission of x-rays, in this manner, is termed x-ray fluorescence.

Appendix B

Abbreviations and Acronyms

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°C	Degrees Celsius
°F	Degrees Fahrenheit
%D	Percent Difference
%R	Percent Recovery
AF	Air Force
AFCEE	Air Force Center for Engineering and the Environment
AFB	Air Force Base
AFRIMS	Air Force Restoration Information Management System
ANG	Air National Guard
ANGB	Air National Guard Base
AOC	Area of Concern
APP	Accident Prevention Plan
AR	Administrative Record
ASCII	American Code for Information Standard
bgs	Below Ground Surface
BS	Blank Spike
CAIS	Chemical Agent Identification Set
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHF	Contamination Hazard Factor
CLP	Contract Laboratory Program
CFR	Code of Federal Regulations
CHE	Chemical Warfare Materiel Hazard Evaluation
COC	Chain of Custody
COPC	Chemical of Potential Concern
CORS	Continuously Operating Reference Stations
CSE	Comprehensive Site Evaluation
CSM	Conceptual Site Model
CWM	Chemical Warfare Materiel
DAS	Data Acquisition System
DDESB	Department of Defense Explosive Safety Board
DGM	Digital Geophysical Mapping
DoD	U.S. Department of Defense
DMM	Discarded Military Munition
DMT	Data Management Tool
DQCR	Daily Quality Control Report
DQO	Data Quality Objective
DUP	Duplicate Sample
EcoSSL	Ecological Soil Screen Levels
EESOH-MIS	Enterprise Environmental, Safety and Occupational Health - Management Information Systems
EHE	Explosive Hazard Evaluation
EM	Electromagnetic
EOD	Explosive Ordnance Disposal
EPC	Exposure Point Concentration
ERP	Environmental Restoration Program
ERPIMS	Environmental Restoration Program Information Management System
ESR	Equipment Standardization Report
ESL	Ecological Screening Levels

ESS	Explosive Safety Submission
FS	Fighter Squadron
Ft	Foot or feet
FW	Fighter Wing
GC	Gas Chromatography
GIS	Geographic Information System
GPS	Global Positioning System
H	High
HHRA	Human Health Risk Assessment
HHE	Health Hazard Evaluation
HHSSL	Human Health Specific Screening Levels
HRR	Historical Records Review
HRS	Hazard Ranking System
Hz	Hertz
ICP	Inductively Coupled Plasma
ICSM	Interim Conceptual Site Model
ID	Identification
IR	Information Repository
IVS	Instrument Verification Strip
J	Qualified Estimated
KVp	Peak Kilo voltage
L	Low
LANL	Los Alamos National Laboratory
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Level of Detection
LQ	Lab Qualifier
M	Medium
MAJCOM	Major Command
MC	Munitions Constituents
MD	Munitions Debris
MDL	Method Detection Limit
MEC	Munitions and Explosives of Concern
mg/kg	Milligram(s) per Kilogram
MGFD	Munitions with the Greatest Fragmentation Distance
Mg/kg	Milligram/kilogram
MHz	Megahertz
MIDAS	Munitions Item Disposition Action System
MMDC	Military Munitions Design Center
MMRP	Military Munitions Response Program
MPF	Mitigation Pathway Factor
SQL	Minimum Quantitation Limit
MRA	Munitions Response Area
MRL	Method Reporting limit
MRS	Munitions Response Site
MRSP	Munitions Response Site Prioritization Protocol
msl	Mean Sea Level
MS	Matrix Spike or Mass Spectrometry

MSD	Matrix Spike Duplicate
MSl	Mean Sea Level
NAD83	North American Datum of 1983
NELAC	National Environmental Laboratory Accreditation Conference
NEW	Net Explosive Weight
NFA	No Further Action
NGS	National Geodetic Survey
NYDEC	New York Department of Environmental Conservation
OB	Open Burn
OD	Open Detonation
ORAP	Operational range Assessment Plan
ORNL	Oak Ridge National Laboratory
oz	ounce
PA	Preliminary Assessment
PAH	Polynuclear Aromatic Hydrocarbons
PCOC	Potential contaminant of concern
POL	Petroleum, Oil, and Lubricants
ppm	Parts Per Million
ppb	Parts Per Billion
PQL	Practical Quantitation Limit
Prep	Preparation
PT	Proficiency Testing
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R	Rejected
RACER	Remedial Action Cost Engineering Requirements
RCRA	Resource Conservation and Recovery Act
RDX	Explosive Compound (hexahydro-1,3,5-trinitro-1,3,5-triazine)
RF	Receptor Facto
RFI	RCRA Facility Investigation
RMS	Root Mean Square
RPD	Relative Percent Difference
RPM	Remedial Project Manager
RRSE	Relative Risk Site Evaluation
RSL	Regional Screening Level
RSD	Relative standard deviation
RSS	Risk Reduction Standard
SAR	Small Arms Range
SI	Site Inspection
SiO ₂	Silicone Dioxide
SKY	Sky Research, Inc.
SLERA	Screening-level ecological risk assessment
SOP	Standard Operating Procedure
SSHP	Site-Specific Safety and Health Plan
SSL	Soil Screening Level
SVOC	Semi-Volatile Organic Compounds

TCLP	Toxicity Characteristic Leaching Procedure
TDEM	Time domain electromagnetic
TFG	Tactical Fighter Group
TNT	2, 4, 6 - Trinitrotoluene
UCL	Upper Confidence Level
UFP	Uniform Federal Policy
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USGS	United States Geological Survey
UV	Ultraviolet
UXO	Unexploded Ordnance
VQ	Validation Qualifier
WAAS	Wide Area Augmentation System
WWII	World War II
XRF	X-ray Fluorescence

Appendix C

References

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Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0267

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Plastic magazine case

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1

**MRA:**

Firing-In Buttress

PHOTO NAME:

A0262

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

.50 cal steel core

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

3



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0269

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

5.56mm casing. Linked blanks
for SAW

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

5-10

**MRA:**

Firing-In Buttress

PHOTO NAME:

A0271

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

5.56mm casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

H0355

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

.50 cal steel core found at center of berm - from lead sampling location

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)

**MRA:**

Firing-In Buttress

PHOTO NAME:

H0379

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Copper jacket taken from center of berm on North end - from lead sample location

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0264

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

20mm TP

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1

**MRA:**

Firing-In Buttress

PHOTO NAME:

A0276

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Spacer for 3.5 inch rocket. Soil turned up by brush hog.

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0277

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

20mm TP

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1



MRA:

Firing-In Buttress

PHOTO NAME:

A0266

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Target silhouette

CATEGORY:

Evidence of Small Arms Activity

NUMBER OF ITEMS:

2



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0257

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

North side of Firing-In Buttress

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



MRA:

Firing-In Buttress

PHOTO NAME:

H0376

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

High vegetation

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

H0377

PHOTO DIRECTION:

North

CONDITION:

(None)

COMMENT:

High vegetation

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



MRA:

Firing-In Buttress

PHOTO NAME:

H0381

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

FIB from the East

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

H0382

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

FIB from the North-East

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Firing-In Buttress

PHOTO NAME:

H0388

PHOTO DIRECTION:

North

CONDITION:

(None)

COMMENT:

Creek running through MRA

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

A0254

PHOTO DIRECTION:

North East

CONDITION:

(None)

COMMENT:

Berm and revetment. Evidence of small arms activity from small arms debris and targets

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Firing-In Buttress

PHOTO NAME:

H0386

PHOTO DIRECTION:

North East

CONDITION:

(None)

COMMENT:

Berm and revetment. Evidence of small arms activity from small arms debris and targets

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Firing-In Buttress

PHOTO NAME:

H0383

PHOTO DIRECTION:

South

CONDITION:

(None)

COMMENT:

Dense vegetation. North of berm

CATEGORY:

Unsurveyable

NUMBER OF ITEMS:

(None)

**MRA:**

Firing-In Buttress

PHOTO NAME:

H0384

PHOTO DIRECTION:

South

CONDITION:

(None)

COMMENT:

Dense vegetation. North of MRA

CATEGORY:

Unsurveyable

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0283

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Lead debris. Slugs fired into
wooden planks

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

40-60

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0190

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Small arms slugs lodged in
range pilings

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0194

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Small arms slugs lodged

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0213

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Unknown casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0214

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

9mm casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0251

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

12g shotgun casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

3



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0255

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Lead debris

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

10-19

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0257

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Copper jacket

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

2



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0261

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

.45 cal casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

2

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0262

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

9mm casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

4



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0233

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Lead debris

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

10-19

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0273

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

.40 cal casing - from lead
sampling

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0325

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

5.56mm magazine

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0345

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

12g shotgun casing

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

2



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0290

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

(None)

CATEGORY:

Clay Target Debris

NUMBER OF ITEMS:

3

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0344

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

(None)

CATEGORY:

Clay Target Debris

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0202

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0203

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

3



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0204

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

3

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0207

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

10-19



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0211

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0215

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

2



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0223

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

5-10

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0293

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Offensive grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0339

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

40mm practice grenade

CATEGORY:

Munitions Debris (MD)

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0292

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Smoke pot

CATEGORY:

Evidence of MEC Activity

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0169

PHOTO DIRECTION:

South

CONDITION:

Intact

COMMENT:

Concrete firing pad

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0174

PHOTO DIRECTION:

East

CONDITION:

Debris

COMMENT:

Trash can used as small arms
target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0177

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Old door used as small arms
target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0180

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Scrap used as small arms target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0192

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Hunting target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0254

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Small arms target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0264

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Small arms target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0265

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Watering can used as target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0281

PHOTO DIRECTION:

Close Up

CONDITION:

Debris

COMMENT:

Bowling pin as target

CATEGORY:

Evidence of Small Arms
Activity

NUMBER OF ITEMS:

1

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0170

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

Range debris

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0171

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

Range debris

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0197

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

Photo overview of MRA from
top of berm

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0216

PHOTO DIRECTION:

West

CONDITION:

(None)

COMMENT:

Building debris on old
foundation

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0226

PHOTO DIRECTION:

South

CONDITION:

(None)

COMMENT:

Top of berm

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0229

PHOTO DIRECTION:

South

CONDITION:

(None)

COMMENT:

Top of berm

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0278

PHOTO DIRECTION:

North

CONDITION:

(None)

COMMENT:

Shooting-In Buttress - East of
berm

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

H0324

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

West edge of Northern berm
facing East

CATEGORY:

Terrain

NUMBER OF ITEMS:

(None)

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0175

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

Range infrastructure (piling)

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0176

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

Range infrastructure (piling)

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)

**MRA:**

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0178

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

Range infrastructure (piling)

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)



Hancock Field ANGB 2010 Photographic Log

CSE Phase II -- Syracuse, NY

MRA:

Small Arms Range Shooting-In
Buttress

PHOTO NAME:

A0193

PHOTO DIRECTION:

East

CONDITION:

(None)

COMMENT:

Range infrastructure (piling)

CATEGORY:

Small Arms Debris

NUMBER OF ITEMS:

(None)



Appendix E

Field Notes and Forms

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SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9/7/2010 SITE SAFETY OFFICER: Dalrymple

AREAS OF WORK: SAR/Shooting in Butt
ANTICIPATED WEATHER: Clear ~~to~~ Skies to partly cloudy
INSTRUMENTS: Geo XT
EMERGENCY CONTACTS: 911
SAFETY TOPIC: Site Hazards Overview

ATTENDEES:

NAME	COMPANY
<u>Peter Dalrymple</u>	<u>SKY</u>
<u>Joe Koks</u>	<u>SKY</u>
<u>Jon Jacobson</u>	<u>SKY</u>
<u>James Marasin</u>	<u>179EL</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:
Peter Dalrymple

PROJECT NUMBER:
D029

CONTRACT NO.:
W9128F-09-D0029
Comprehensive Site Evaluation Phase II
Hancock Field Air National Guard Base

DAY OF THE WEEK						
S	M	T	W	TH	F	S
		X				

Date: 09/07/2010

WEATHER CONDITIONS
Sunny to partly Cloudy

WEATHER	am: Partly Cloudy	
	pm: Partly Cloudy	
TEMP:	am: 58°F	pm: 87°F
WIND	max: 15	Report No.: 1
	avg: 5	
HUMIDITY	62%	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Project Manager	Ian Roberts	6	Sky Research Inc.	Visual Surveys in Small Arms Range and Shooting-in Buttrass.
Field Lead	Peter Dalrymple	6	Sky Research Inc.	
Field Tech	Jon Jacobson	6	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6	6	0	0
Ricoh GPS Camera	N	09/06/2010	9/6	6	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Entrance Brief with TSgt. Brent Lynch, Jim Marasia, Ian Roberts, Peter Dalrymple, and Jon Jacobson. Visual survey in Small Arms Range and Shooting-in Buttrass.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

QC of GPS data and site photos.

5. Tests Performed and Test Results:

N/A

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: identification of site hazards such as Poison Ivy and steep terrain. Check for cell phone coverage at job site.

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

Soil Sampling equipment lost by Fedex; soil sampling delayed by one day.

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead

Peter Dalrymple

Date

09/07/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9/8/2010 **SITE SAFETY OFFICER:** Peter Dalrymple

AREAS OF WORK: Small Arms Range / Shooting - In

ANTICIPATED WEATHER: 50% Chance of Rain

INSTRUMENTS: Geo XT, GPS Cameras, Hand Tools, Machetes

EMERGENCY CONTACTS: 911

SAFETY TOPIC: Proper Use of Machete / Lighting Precautions

ATTENDEES:

NAME	COMPANY
<u>Peter Dalrymple</u>	<u>Sky</u>
<u>Jan Jacobs</u>	<u>Sky</u>
<u>Jon Jacobson</u>	<u>SEI</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

Comprehensive Site Evaluation Phase II
Hancock Field Air National Guard Base

DAY OF THE WEEK

S	M	T	W	TH	F	S
			X			

Date: 09/08/2010

WEATHER CONDITIONS

Mostly cloudy with rain

WEATHER	am: Mostly cloudy pm: Partly Cloudy and rain
TEMP:	am: 61°F pm: 70°F
WIND	max: 21 avg: 12
HUMIDITY	72%
Report No.: 2	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Project Manager	Ian Roberts	8.5	Sky Research Inc.	XRF sampling in Small Arms Range and Shooting-in Buttrass.
Field Lead	Peter Dalrymple	8.5	Sky Research Inc.	
Field Tech	Jon Jacobson	8.5	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	8.5	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	8.5	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
XRF sampling in Small Arms Range and Shooting-in Buttrass.

4. Control Activities Performed:

QC of GPS data and site photos. Oversight of team sampling practices and decontamination procedures.



DAILY QUALITY CONTROL REPORT

5. Tests Performed and Test Results:

N/A

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: Proper machete use and lighting precautions.

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead
Peter Dalrymple

Date
09/08/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9-9-10 **SITE SAFETY OFFICER:** PTartak

AREAS OF WORK: FEB

ANTICIPATED WEATHER: Cloudy Rain - 60°

INSTRUMENTS: XFF - Soil Sampling

EMERGENCY CONTACTS: 911 - 315-233-2660 - 2199

SAFETY TOPIC: UXO

ATTENDEES:

NAME	COMPANY
<u>PTartak</u>	<u>SKY</u>
<u>John Jacobson</u>	<u>SKY</u>
<u>Peter Daryapko</u>	<u>SKY</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

**Comprehensive Site Evaluation Phase II
Hancock Field Air National Guard Base**

DAY OF THE WEEK

S	M	T	W	TH	F	S
				X		

Date: 09/09/2010

WEATHER CONDITIONS

Mostly cloudy with rain

WEATHER	am: Mostly cloudy with rain pm: Mostly cloudy
TEMP:	am: 55°F pm: 60°F
WIND	max: 20 avg: 12
HUMIDITY	89%
Report No.: 3	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	9	Sky Research Inc.	Visual survey revisit to Small Arms Range and Shooting-in Buttriss for MD identification. Visual surveys and XRF sample collection in Firing-in Buttriss.
Field Tech	Jon Jacobson	9	Sky Research Inc.	
UXO Tech	Troy Pfertsh	9	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	9	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	9	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	9	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Visual survey revisit to Small Arms Range and Shooting-in Buttriss for MD identification. Identified "smoke pot" and "riot control grenade" in the eastern portion of the MRA. Visual surveys and collected XRF samples in the Firing-in Buttriss. Small arms debris, 20mm, and a 3.5 rocket spacer were observed. Site visit from Col Van Wie, TSgt. Lynch, and TSgt. Marasia.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos. Oversight of team sampling practices and decontamination procedures.

5. Tests Performed and Test Results:

N/A

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: UXO and protection from EEE (mosquito-borne illness present in area)

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

Daily Status Figures

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead

Peter Dalrymple

Date

09/09/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9-30-18 **SITE SAFETY OFFICER:** P. Fertish

AREAS OF WORK: FIB

ANTICIPATED WEATHER: P. Cloudy 30% chance of Rain

INSTRUMENTS: XRF

EMERGENCY CONTACTS: 911- 315-233-2660-2119

SAFETY TOPIC: UxO, mosquitoes, Slips Trips Falls

ATTENDEES:

NAME	COMPANY
<u>P. Fertish</u>	<u>SKY</u>
<u>Peter Dabrymple</u>	<u>SKX</u>
<u>Jon Jacobson</u>	<u>SKY</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

Comprehensive Site Evaluation Phase II

Hancock Field Air National Guard Base

DAY OF THE WEEK

S	M	T	W	TH	F	S
					X	

Date: 09/10/2010

WEATHER CONDITIONS

Clear to Mostly Cloudy

WEATHER	am: Clear pm: Mostly cloudy
TEMP:	am: 55°F pm: 69°F
WIND	max: 17 avg: 7
HUMIDITY	83%
Report No.: 4	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	8	Sky Research Inc.	Visual surveys and sample collection in Firing-in Buttress. Homogenizing and air drying samples.
Field Tech	Jon Jacobson	8	Sky Research Inc.	
UXO Tech	Troy Pfertsh	8	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	8	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	8	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	8	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Visual surveys and sample collection in Firing-in Buttress. Homogenizing and air drying samples. Site tour with TSgt. Brent Lynch, SSgt. James Marasia, Jody Murata, and Veronica Allen.

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos.



DAILY QUALITY CONTROL REPORT

5. Tests Performed and Test Results:

N/A

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: UXO and Sun protection/Heat Stress

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

XRF analysis delayed due to issues with Thermo Niton software. Issues resolved offsite with Thermo Niton tech support.

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead

Peter Dalrymple

Date

09/10/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9/14/2010 **SITE SAFETY OFFICER:** P. Pershke

AREAS OF WORK: Shooting - In

ANTICIPATED WEATHER: Clear Skies

INSTRUMENTS: GeoXT, XPF, Carveas, Schonstedt

EMERGENCY CONTACTS: 911

SAFETY TOPIC: Heat Related Injuries

ATTENDEES:

NAME	COMPANY
<u>Peter Dalgrymple</u>	<u>SKY</u>
<u>P. Pershke</u>	<u>SKY</u>
<u>Sam Jacobson</u>	<u>SKY</u>

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

Comprehensive Site Evaluation Phase II

Hancock Field Air National Guard Base

DAY OF THE WEEK

S	M	T	W	TH	F	S
						X

Date: 09/11/2010

WEATHER CONDITIONS

Clear to Mostly Cloudy

WEATHER	am: Clear pm: Mostly cloudy
TEMP:	am: 47°F pm: 71°F
WIND	max: 12 avg: 2
HUMIDITY	71%
Report No.: 5	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	9	Sky Research Inc.	Sample collection in Small Arms Range and Shooting-in Buttriss (step-outs and depth samples). Homogenizing and air drying samples. XRF analysis.
Field Tech	Jon Jacobson	9	Sky Research Inc.	
UXO Tech	Troy Pfertsh	9	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	9	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	9	0	0
Thermo Niton XRF Analyzer	N	09/06/2010	9/6/2010	9	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	9	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Sample collection in Small Arms Range and Shooting-in Buttriss (step-outs and depth samples). Homogenizing and air drying samples. XRF analysis. Visit from TSgt. Brent Lynch.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos.

5. Tests Performed and Test Results:

Testing of XRF equipment with standard reference materials of known concentration, all tests passed.

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: Heat related injuries

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead
Peter Dalrymple

Date
09/11/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9/13/2010 **SITE SAFETY OFFICER:** P. Pershke

AREAS OF WORK: Shooting In

ANTICIPATED WEATHER: Chance of T-Storms

INSTRUMENTS: Geo XT, XRF, Cameras, GPR, etc.

EMERGENCY CONTACTS: 9/11

SAFETY TOPIC: Radiation Safety

ATTENDEES:

NAME	COMPANY
<u>Peter Dalajmpic</u>	<u>SKY</u>
<u>Pershke</u>	<u>SKY</u>
<u>Jon Jacobson</u>	<u>SKY</u>

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

Comprehensive Site Evaluation Phase II

Hancock Field Air National Guard Base

DAY OF THE WEEK

S	M	T	W	TH	F	S
	X					

Date: 09/13/2010

WEATHER CONDITIONS

Heavy rain to partly cloudy

WEATHER	am: Heavy rain	
	pm: Partly cloudy to Heavy rain	
TEMP:	am: 53°F	pm: 72°F
WIND	max: 18	Report No.: 6
	avg: 5	
HUMIDITY	83%	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	9.5	Sky Research Inc.	Sample collection in Small Arms Range and Shooting-in Buttriss (step-outs). Homogenizing and air drying samples. XRF analysis. Additional Visual surveys south of MRA and in highly vegetated areas; ground visible in many areas, but access difficult.
Field Tech	Jon Jacobson	9.5	Sky Research Inc.	
UXO Tech	Troy Pfertsh	9.5	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	9.5	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	9.5	0	0
Thermo Niton XRF Analyzer	N	09/06/2010	9/6/2010	9.5	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	0	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Sample collection in Small Arms Range and Shooting-in Buttriss (step-outs). Homogenizing and air drying samples. XRF analysis. Additional Visual surveys south of MRA and in highly vegetated areas. No visitors.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos. Oversight of XRF calibrations by Field Lead.

5. Tests Performed and Test Results:

Testing of XRF equipment with standard reference materials of known concentration, all tests passed.

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: Lightning precautions

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead

Peter Dalrymple

Date

09/13/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9-14-10 **SITE SAFETY OFFICER:** P. T. T. T. T.

AREAS OF WORK: F.I.B.

ANTICIPATED WEATHER: P. Cloudy Breezy 65°

INSTRUMENTS: XIT

EMERGENCY CONTACTS: 411

SAFETY TOPIC: UXO - 20 mm

ATTENDEES:

NAME	COMPANY
<u>J. P. T. T. T.</u>	<u>SKY</u>
<u>Jon Jacobson</u>	<u>SKY</u>
<u>Peter D. Lympke</u>	<u>SKY</u>

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

**Comprehensive Site Evaluation Phase II
Hancock Field Air National Guard Base**

DAY OF THE WEEK

S	M	T	W	TH	F	S
		X				

Date: 09/14/2010

WEATHER CONDITIONS

Rainy to partly cloudy

WEATHER	am: Rainy pm: Partly cloudy and high winds
TEMP:	am: 53°F pm: 60°F
WIND	max: 24 avg: 11
HUMIDITY	71%
Report No.: 7	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	10.5	Sky Research Inc.	Sample collection in Firing-in Buttress. XRF analysis. Additional Visual surveys in highly vegetated areas of the FIB; ground visible in some areas, but access difficult.
Field Tech	Jon Jacobson	10.5	Sky Research Inc.	
UXO Tech	Troy Pfertsh	10.5	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	10.5	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	10.5	0	0
Thermo Niton XRF Analyzer	N	09/06/2010	9/6/2010	10.5	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	4	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.)

Activities Conducted
Sample collection in Firing-in Buttress. XRF analysis. Additional Visual surveys in highly vegetated areas of the FIB; ground visible in some areas, but access difficult. No visitors.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos. Oversight of XRF calibrations by Field Lead.

5. Tests Performed and Test Results:

Testing of XRF equipment with standard reference materials of known concentration, all tests passed.

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: Slips, Trips, and Falls

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead
Peter Dalrymple

Date
09/14/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 2-15-20 **SITE SAFETY OFFICER:** P. Fenton

AREAS OF WORK: Shooting In
ANTICIPATED WEATHER: P. Cloudy 62° Wind: 10-20
INSTRUMENTS: XRF
EMERGENCY CONTACTS: 911
SAFETY TOPIC: Biological Hazards

ATTENDEES:

NAME	COMPANY
<u>P. Fenton</u>	<u>SKY</u>
<u>Peter Delany</u>	<u>SKY</u>
<u>Jon Salas</u>	<u>SKY</u>

COMMENTS:



DAILY QUALITY CONTROL REPORT

FIELD LEAD:

Peter Dalrymple

PROJECT NUMBER:

D029

CONTRACT NO.:

W9128F-09-D0029

Comprehensive Site Evaluation Phase II

Hancock Field Air National Guard Base

DAY OF THE WEEK

S	M	T	W	TH	F	S
			X			

Date: 09/15/2010

WEATHER CONDITIONS

Partly cloudy

WEATHER	am: Partly cloudy pm: Partly cloudy
TEMP:	am: 45°F pm: 63°F
WIND	max: 20 avg: 8
HUMIDITY	72%
Report No.: 8	

1. Project Personnel and Areas of Responsibility:

Trade	Person	Hours	Employer	Location & Description of Work
Field Lead	Peter Dalrymple	8	Sky Research Inc.	Sample collection in Small Arms Range and Shooting-in Buttrass. Selection of samples for correlation. XRF analysis.
Field Tech	Jon Jacobson	8	Sky Research Inc.	
UXO Tech	Troy Pfertsh	8	Sky Research Inc.	

2. Operating Plant or Equipment (Not hand tools):

Plant / Equipment	Subcontractor Equipment? (Y / N)	Date of Arr. / Dep.	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Trimble GeoXT handheld GPS	N	09/06/2010	9/6/2010	8	0	0
Ricoh GPS Camera	N	09/06/2010	9/6/2010	8	0	0
Thermo Niton XRF Analyzer	N	09/06/2010	9/6/2010	8	0	0
Schonstedt Magnetometer	N	09/06/2010	9/9/2010	0	0	0

3. Work Performed Today: (Indicate location and description of work performed by project team.

Activities Conducted
Sample collection in Small Arms Range and Shooting-in Buttrass. XRF analysis. Selection of samples for correlation. No visitors.



DAILY QUALITY CONTROL REPORT

4. Control Activities Performed:

Offsite QC of GPS data accuracy and site photos. Oversight of XRF calibrations by Field Lead.

5. Tests Performed and Test Results:

Testing of XRF equipment with standard reference materials of known concentration, all tests passed.

6. Material Received:

N/A

7. Submittals Reviewed:

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Off-site Surveillance Activities, including Action Taken:

N/A

9. Job Safety: (List items checked, results, instructions and corrective actions taken)

Tail Gate Safety meeting: Biological Hazards

10. Remarks: (Instructions received or given. Conflict(s) in plans and/or specifications. Delays encountered).

None

11. List of Attachments: (List all attachments to this report, include date and reference number where applicable. Attachments are to include copies of inspection checklists, test reports, data reports, and field measurement/calculation sheets.)

N/A

Contractor's Verification: On behalf of Sky Research, Inc., I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Field Lead

Peter Dalrymple

Date

09/15/2010

SKY RESEARCH INC.

TAIL GATE SAFETY FORM

HANCOCK FIELD ANG, NEW YORK

DATE: 9-16-10 **SITE SAFETY OFFICER:** P. Jacobs

AREAS OF WORK: Shoring in Buttrick

ANTICIPATED WEATHER: P. Cloudy PM Rain 57-65

INSTRUMENTS: XRF

EMERGENCY CONTACTS: 911

SAFETY TOPIC: Poison Ivy

ATTENDEES:

NAME	COMPANY
<u>P. Jacobs</u>	<u>SKY</u>
<u>John Jacobson</u>	<u>SKY</u>
<u>Peter D'Arcy</u>	<u>SKY</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

COMMENTS:

Sampler ID _____
Temperature on Receipt _____
Drinking Water? Yes ☐ No ☐

Chain of
Custody Record

TAI-4124-280-405-084

Client		Project Manager		Date		Chain of Custody Number	
Address		Telephone Number (Area Code)/Fax Number		Lab Number		Page 1 of 2	
City		Site Contact		Analysis (Attach list if more space is needed)			
State		Lab Contact					
Zip Code		Carrier/Waybill Number					
Project Name and Location (State)		Containers & Preservatives					
Contract/Purchase Order/Quote No.		Matrix					
Sample ID No. and Description		Time					
(Containers for each sample may be combined in one line)		Date					
C-XR-HF-01-SS-301		9/16/10		13:48			
C-XR-HF-01-SS-306		9/16/10		14:05			
C-XR-HF-01-SS-158		9/16/10		14:14			
C-XR-HF-01-SS-101		9/16/10		14:33			
C-XR-HF-01-SS-103		9/16/10		14:41			
C-XR-HF-01-SS-069		9/16/10		14:58			
C-XR-HF-01-SS-114		9/16/10		15:00			
C-XR-HF-01-SS-105		9/16/10		15:18			
C-XR-HF-02-SS-109		9/16/10		15:34			
C-XR-HF-02-SS-100		9/16/10		15:41			
C-XR-HF-01-SS-104		9/16/10		15:51			
Possible Hazard Identification		Sample Disposal					
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown		☐ Return To Client ☐ Disposal By Lab ☐ Archive For		Months		(A fee may be assessed if samples are retained longer than 1 month)	
Turn Around Time Required		QC Requirements (Specify)					
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 21 Days ☐ Other		1 Received By		Time		Date	
1 Relinquished By		2 Received By		Time		Date	
2 Relinquished By		3 Received By		Time		Date	
3 Relinquished By							
Comments							

Shipped VIA Priority Overnight (Fedex)

Appendix F

XRF Data

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XRF Sampling Results Small Arms and Shooting-In Buttress (SR001)

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-ss-004	9/11/2010 14:57	137	34.46	0 - 6 inches	None	107	14.61	99.9	6.8
		138	33.03			91.1	14.08		
		139	31.94			103	15.17		
		140	30.91			98.8	15.26		
c-xr-hf-01-ss-009	9/11/2010 10:27	31	30.46	0 - 6 inches	None	367	28.29	336	7.0
		32	30.63			333	26.01		
		33	30.46			309	25.2		
		34	30.46			337	26.35		
c-xr-hf-01-ss-101	9/11/2010 11:01	46	31.37	0 - 6 inches	lead debris	618	34.54	648	5.7
		47	30.38			697	37.24		
		48	30.56			620	34.92		
		49	30.44			655	35.94		
c-xr-hf-01-sb1-101	9/13/2010 13:23	306	30.38	6 - 12 inches	None	81.3	13.67	88.1	5.9
		307	32.32			87.1	13.69		
		308	31.54			93.4	14.24		
		309	30.6			90.6	14.17		
c-xr-hf-01-ss-102	9/11/2010 9:29	6	34.17	0 - 6 inches	lead debris (proj)	239	20.54	234	3.8
		7	31.39			243	22.28		
		8	31.79			229	21.17		
		9	32.78			223	20.35		
c-xr-hf-01-ss-103	9/11/2010 15:11	147	30.95	0 - 6 inches	lead debris	648	34.97	630	13.2
		148	30.86			570	33.46		
		149	32.33			560	31.71		
		150	42.19			740	31.14		
c-xr-hf-01-sb1-103	9/14/2010 14:41	412	30.63	6 - 12 inches	None	155	17.88	158	2.4
		413	31.63			158	17.77		
		414	30.53			156	18.08		
		415	30.85			164	18.43		
c-xr-hf-01-ss-104	9/11/2010 11:42	61	33.19	0 - 6 inches	None	1676	55.4	1804	15.1
		62	30.45			2077	65.74		
		63	30.46			1980	63.96		
		64	30.67			1484	54.16		
c-xr-hf-01-sb1-104	9/14/2010 13:40	387	30.73	6 - 12 inches	None	287	23.84	278	18.3
		388	33.94			278	22.04		
		389	32.54			335	25.16		
		390	44.29			212	16.85		

Appendix F
XRF Sampling Results (SR001)
MMRP CSE Phase II
Hancock Field ANGB, New York

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-ss-105	9/11/2010 9:44	11	31.18	0 - 6 inches	lead debris	4186	94.02	4096	7.3
		12	30.67			3705	87.63		
		13	30.52			4425	96.81		
		14	30.48			4070	93.83		
c-xr-hf-01-sb1-105	9/13/2010 12:27	274	30.88	6 - 12 inches	copper jacket	327	25.89	371	12.4
		275	30.63			383	27.65		
		276	30.41			344	26.67		
		277	30.12			431	29.69		
c-xr-hf-01-sb2-105	9/13/2010 16:39	332	31.88	12 - 18 inches	lead flakes removed	120	15.92	141	14.3
		333	30.54			142	17.56		
		334	30.25			135	17.52		
		335	42.61			168	15.75		
c-xr-hf-01-ss-106	9/11/2010 13:15	97	31.27	0 - 6 inches	None	345	26.3	302	15.7
		98	31.69			260	22.97		
		99	30.53			261	23.51		
		100	32.52			340	24.96		
c-xr-hf-01-sb1-106	9/14/2010 12:54	360	30.73	6 - 12 inches	None	66.7	12.87	59.5	10.7
		361	30.4			60.3	12.37		
		362	34.03			51.2	10.95		
		363	30.93			59.6	12.18		
c-xr-hf-01-ss-107	9/11/2010 13:55	112	32.3	0 - 6 inches	None	53.6	11.63	56.3	16.7
		113	30.86			45.2	11.44		
		114	30.48			67.5	13.08		
		115	30.62			59.0	12.73		
c-xr-hf-01-ss-108	9/11/2010 13:35	102	30.93	0 - 6 inches	None	310	25.11	257	14.0
		103	31.99			245	21.9		
		104	30.56			242	22.6		
		105	30.56			230	22.0		
c-xr-hf-01-sb1-108	9/14/2010 14:23	402	30.31	6 - 12 inches	None	38.2	10.91	50.4	16.3
		403	30.53			55.5	11.9		
		404	30.71			52.7	11.72		
		405	38.12			55.4	10.69		
c-xr-hf-01-ss-109	9/11/2010 13:47	107	31.86	0 - 6 inches	None	272	22.9	261	4.1
		108	31.49			253	22.7		
		109	30.4			268	23.6		
		110	30.83			250	22.8		

Appendix F
XRF Sampling Results (SR001)
MMRP CSE Phase II
Hancock Field ANGB, New York

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-sb1-009	9/13/2010 13:46	316	30.46	6 - 12 inches	None	212	20.89	229	7.6
		317	30.6			229	21.71		
		318	30.53			253	22.73		
		319	31.9			221	20.79		
c-xr-hf-01-ss-110	9/11/2010 11:31	56	30.51	0 - 6 inches	lead debris (proj)	4969	106	4411	10.6
		57	30.54			4496	99.1		
		58	30.72			4346	97.4		
		59	30.67			3835	91.3		
c-xr-hf-01-sb1-110	9/14/2010 14:33	407	32.36	6 - 12 inches	None	147	17.23	123	13.6
		408	30.49			107	15.5		
		409	30.49			120	16.31		
		410	30.71			118	16.41		
c-xr-hf-01-ss-111	9/11/2010 12:52	92	32.27	0 - 6 inches	None	989	43.0	1009	16.1
		93	30.43			1210	48.9		
		94	31.43			813	40.0		
		95	30.92			1024	45.3		
c-xr-hf-01-sb1-111	9/14/2010 15:13	427	32.13	6 - 12 inches	None	119	16.05	124	12.3
		428	30.52			109	15.74		
		429	30.23			125	16.87		
		430	30.68			145	18.19		
c-xr-hf-01-ss-112	9/11/2010 10:43	36	31.86	0 - 6 inches	lead debris	4713	98.6	5217	14.0
		37	31.05			4737	102		
		38	30.37			5149	107		
		39	30.6			6269	119		
c-xr-hf-01-sb1-112	9/14/2010 13:12	370	30.56	6 - 12 inches	None	911	42.49	902	11.1
		371	30.56			1039	45.86		
		372	30.93			843	40.64		
		373	41.38			815	33.98		
c-xr-hf-01-sb2-112	9/14/2010 12:36	354	30.87	12 - 18 inches	None	311	25.01	323	13.2
		355	31.87			299	24.17		
		356	31.16			387	27.41		
		357	30.62			297	24.3		
c-xr-hf-01-sb3-112	9/15/2010 14:57	543	30.57	18 - 24 inches	None	173	18.52	172	2.6
		544	30.58			178	18.99		
		545	31.32			171	18.63		
		546	30.42			167	18.69		

Appendix F
XRF Sampling Results (SR001)
MMRP CSE Phase II
Hancock Field ANGB, New York

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-ss-113	9/11/2010 15:03	142	30.88	0 - 6 inches	None	106	15.0	97.2	6.8
		143	30.65			90.2	14.2		
		144	30.57			95.8	14.8		
		145	30.44			96.7	14.7		
c-xr-hf-01-ss-114	9/11/2010 11:13	51	30.71	0 - 6 inches	None	331	25.2	309	12.8
		52	30.51			260	22.7		
		53	30.75			350	26.3		
		54	30.78			296	24.2		
c-xr-hf-01-sb1-114	9/13/2010 15:08	322	32.25	6 - 12 inches	5.56 casing	60.3	11.95	63.7	15.5
		323	30.25			78.0	13.35		
		324	30.43			60.9	12.37		
		325	30.39			55.5	11.99		
c-xr-hf-01-ss-151	9/11/2010 14:03	117	30.56	0 - 6 inches	None	284	23.95	294	14.2
		118	30.38			354	26.81		
		119	30.52			277	23.76		
		120	31.68			259	22.43		
c-xr-hf-01-ss-152	9/11/2010 12:02	71	32.85	0 - 6 inches	None	48.33	10.69	48.5	14.0
		72	30.45			54.52	11.8		
		73	30.53			39.08	10.82		
		74	30.46			52.09	11.69		
c-xr-hf-01-ss-153	9/11/2010 14:28	127	32.16	0 - 6 inches	lead debris	74.69	13.01	73.2	14.4
		128	30.62			86.92	14.09		
		129	30.52			69.02	13.08		
		130	30.49			62.06	12.52		
c-xr-hf-01-ss-154	9/11/2010 16:31	177	30.74	0 - 6 inches	None	65.24	12.7	69.3	9.9
		178	31.51			64.03	12.1		
		179	31.86			79.09	13.12		
		180	30.76			68.94	12.73		
c-xr-hf-01-ss-155	9/13/2010 11:39	249	30.81	0 - 6 inches	skeet target debris	22.68	8.54	28.8	20.0
		250	30.02			26.92	9.18		
		251	31.82			36.42	9.86		
		252	32.09			29.26	9.12		
c-xr-hf-01-ss-156	9/13/2010 12:02	269	30.6	0 - 6 inches	None	46.72	10.49	46.7	9.2
		270	30.45			44.06	10.34		
		271	30.59			52.73	10.93		
		272	30.2			43.19	10.23		

Appendix F
XRF Sampling Results (SR001)
MMRP CSE Phase II
Hancock Field ANGB, New York

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-ss-157	9/13/2010 13:33	311	31.86	0 - 6 inches	None	51.68	10.9	46.9	12.3
		312	30.37			48.82	10.88		
		313	32.27			48.58	10.83		
		314	32.42			38.47	9.63		
c-xr-hf-01-ss-158	9/11/2010 15:37	157	41.86	0 - 6 inches	None	45.88	9	45.7	6.2
		158	32.39			43.61	10.31		
		159	32.35			49.69	10.86		
		160	30.42			43.77	10.89		
c-xr-hf-01-ss-301	9/13/2010 10:33	204	31.43	0 - 6 inches	None	25.65	9.17	25.3	5.7
		205	32.23			23.64	8.96		
		206	30.58			27.11	9.49		
		207	30.63			24.97	9.23		
c-xr-hf-01-ss-302	9/13/2010 10:40	209	30.48	0 - 6 inches	None	26.65	9.63	28.6	11.2
		210	30.42			27.44	9.48		
		211	33.42			27	8.98		
		212	30.4			33.38	10.03		
c-xr-hf-01-ss-303	9/14/2010 15:06	422	31.8	0 - 6 inches	None	44.09	10.74	43.4	18.1
		423	30.62			51.55	11.76		
		424	30.75			32.68	10.06		
		425	30.34			45.27	11.32		
c-xr-hf-01-ss-304	9/13/2010 13:16	301	32.18	0 - 6 inches	None	196.64	19.3	178	9.3
		302	30.36			163.47	18.38		
		303	30.58			187.86	19.7		
		304	30.54			164.91	18.55		
c-xr-hf-01-ss-305	9/14/2010 13:57	392	41.52	0 - 6 inches	None	33.83	8.46	42.9	25.6
		393	30.31			33.33	10.06		
		394	30.5			49.89	11.52		
		395	31.1			54.71	11.84		
c-xr-hf-01-ss-306	9/14/2010 13:05	365	30.32	0 - 6 inches	None	36.94	10.74	36.0	5.9
		366	31.62			33	9.95		
		367	30.47			37.89	10.57		
		368	31.64			36.33	10.33		
c-xr-hf-01-ss-307	9/14/2010 14:14	397	30.63	0 - 6 inches	casing	62.57	12.29	62.1	9.1
		398	30.4			69.81	13.08		
		399	31.97			58.74	11.63		
		400	30.75			57.18	12.07		

Appendix F
XRF Sampling Results (SR001)
MMRP CSE Phase II
Hancock Field ANGB, New York

Sample ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	RSD
c-xr-hf-01-ss-308	9/14/2010 13:18	375	31.05	0 - 6 inches	None	147.07	18.18	132	8.9
		376	31.08			124.49	17.33		
		377	30.44			120.89	17.31		
		378	30.59			134.76	17.88		
c-xr-hf-01-ss-401	9/14/2010 17:00	486	30.71	0 - 6 inches	None	48.37	11.28	37.4	22.8
		487	30.61			34.31	10.14		
		488	31.13			38.67	10.33		
		489	30.47			28.07	9.41		
c-xr-hf-01-ss-402	9/14/2010 16:02	457	32.16	0 - 6 inches	None	60.36	12.15	65.6	7.6
		458	30.47			72.32	13.31		
		459	30.39			64.58	12.7		
		460	30.69			65.08	12.58		
c-xr-hf-01-ss-403	9/15/2010 13:20	523	30.4	0 - 6 inches	None	113.87	16.04	99.2	10.3
		524	30.63			97.3	14.79		
		525	30.49			90.39	14.55		
		526	30.51			95.14	14.75		
c-xr-hf-01-ss-601	9/15/2010 14:12	528	30.43	0 - 6 inches	None	65.58	12.56	78.4	15.4
		529	30.55			76.79	13.47		
		530	34.74			94.67	13.37		
		531	30.62			76.51	13.22		
c-xr-hf-01-ss-602	9/15/2010 15:03	548	32.36	0 - 6 inches	None	26.45	8.91	22.1	15.6
		549	32.3			22.62	8.59		
		550	30.5			21.24	8.63		
		551	30.44			18.13	8.31		
c-xr-hf-01-ss-701	9/16/2010 11:54	660	32.41	0 - 6 inches	None	196.21	18.06	199	6.1
		661	32.94			196.39	17.76		
		662	32.91			215.8	18.76		
		663	30.42			186.74	18.58		
c-xr-hf-01-ss-702	9/16/2010 11:59	665	30.4	0 - 6 inches	None	29.44	8.36	29.8	29.8
		666	32.3			18.07	7.21		
		667	30.64			32.06	8.65		
		668	30.65			39.47	9.24		
c-xr-hf-01-ss-801	9/17/2010 11:54	689	30.89	0 - 6 inches	None	28.68	8.81	26.6	17.3
		690	33.11			26.75	8.21		
		691	30.58			20.17	8.26		
		692	30.52			30.84	9.25		

**XRF Sampling Results
Firing-In Buttress (SR002)**

SAMPLE ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	%RSD
c-xr-hf-02-ss-201	9/13/2010 10:16	194	30.62	0 - 6 inches	None	115.07	15.45	103	8.4
		195	30.75			101.8	14.7		
		196	31.69			101.25	14.18		
		197	30.81			94.33	14.04		
c-xr-hf-02-ss-202	9/11/2010 15:44	162	30.86	0 - 6 inches	None	< LOD	11.18	< LOD	NA
		163	30.85			< LOD	11.21		
		164	33.06			< LOD	10.74		
		165	30.61			16.84	8.54		
c-xr-hf-02-ss-203	9/11/2010 10:06	21	30.41	0 - 6 inches	None	17.68	8.5	15.8	15.7
		22	30.4			14.59	8.15		
		23	30.53			< LOD	11.59		
		24	30.87			19.47	8.77		
c-xr-hf-02-ss-204	9/13/2010 11:09	229	30.47	0 - 6 inches	None	19.89	8.85	23.6	12.7
		230	32.05			27.02	9.29		
		231	31.43			22.93	9.13		
		232	30.23			24.74	9.64		
c-xr-hf-02-ss-205	9/13/2010 10:52	219	32.44	0 - 6 inches	None	19.83	8.38	23.0	23.0
		220	30.37			28.39	9.47		
		221	30.37			26.39	9.45		
		222	30.6			17.23	8.39		
c-xr-hf-02-ss-206	9/13/2010 11:33	244	30.39	0 - 6 inches	None	20.6	8.99	19.0	18.2
		245	30.6			22.32	9.06		
		246	30.68			14.29	8.14		
		247	30.39			18.73	8.95		
c-xr-hf-02-ss-207	9/11/2010 15:50	167	31.3	0 - 6 inches	None	30.04	9.53	30.0	12.8
		168	32.78			33.19	9.35		
		169	30.65			32.26	9.78		
		170	31.65			24.6	8.98		
c-xr-hf-02-ss-208	9/13/2010 11:51	259	30.87	0 - 6 inches	None	15.8	7.87	17.7	16.3
		260	31.87			21.44	8.71		
		261	32			15.09	7.63		
		262	31.07			18.28	8.21		
c-xr-hf-02-ss-209	9/11/2010 9:56	16	30.64	0 - 6 inches	None	326.72	26	368	18.0
		17	30.43			458.47	29.81		
		18	32.71			311.25	23.55		
		19	30.38			375.32	27.21		

Appendix F
XRF Sampling Results (SR002)
MMRP CSE Phase II
Hancock Field ANGB, New York

SAMPLE ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	%RSD
c-xr-hf-02-sb1-209	9/14/2010 15:39	442	31.2	6 - 12 inches	20mm debris	496.69	30.29	585	12.0
		443	30.67			610.72	34.16		
		444	32.57			570.36	31.59		
		445	30.84			662.61	35.49		
c-xr-hf-02-sb2-209	9/14/2010 16:11	462	30.59	12 - 18 inches	lead debris and 50 cal core	357.8	26.6	431	15.8
		463	30.39			436.23	29.24		
		464	31.44			520.95	31.67		
		465	30.55			410.19	28.34		
c-xr-hf-02-sb3-209	9/14/2010 16:51	481	30.52	18 - 24 inches	None	180.88	19.09	195	10.1
		482	32.08			204.81	19.75		
		483	30.53			216.96	21.24		
		484	30.55			175.65	19.13		
c-xr-hf-02-ss-251	9/13/2010 10:47	214	32.18	0 - 6 inches	None	< LOD	11.21	15.4	5.9
		215	30.32			16.94	8.52		
		216	30.7			16.32	8.46		
		217	30.52			18.12	8.49		
c-xr-hf-02-ss-252	9/13/2010 12:39	284	30.6	0 - 6 inches	None	14.67	7.96	17.4	20.3
		285	30.49			22.52	8.69		
		286	30.32			16.89	8.23		
		287	30.34			15.55	8.12		
c-xr-hf-02-ss-253	9/13/2010 11:56	264	32.02	0 - 6 inches	None	21.78	8.8	17.2	18.5
		265	30.47			16.11	8.3		
		266	30.61			16.15	8.39		
		267	30.37			14.58	8.31		
c-xr-hf-02-ss-254	9/13/2010 11:46	254	30.97	0 - 6 inches	None	24.98	8.87	23.7	19.6
		255	30.48			25.08	8.92		
		256	31.65			27.83	9.14		
		257	31.02			17.03	7.98		
c-xr-hf-02-ss-255	9/13/2010 11:29	239	30.31	0 - 6 inches	None	17.18	8.22	20.8	18.5
		240	33.46			23.08	8.33		
		241	30.4			24.96	9.13		
		242	30.43			17.85	8.44		
c-xr-hf-02-ss-256	9/13/2010 11:15	234	30.65	0 - 6 inches	None	21.75	9.17	17.6	28.5
		235	30.93			24.02	9.21		
		236	30.7			< LOD	11.76		
		237	30.37			14.44	8.49		

Appendix F
XRF Sampling Results (SR002)
MMRP CSE Phase II
Hancock Field ANGB, New York

SAMPLE ID	Analysis Date/Time	Reading No	Duration, sec	Depth	Small Arms Debris	Pb, ppm	Pb Error	Final Pb, ppm	%RSD
c-xr-hf-02-ss-257	9/11/2010 16:26	172	30.45	0 - 6 inches	None	12.13	7.72	< LOD	NA
		173	31.11			12.83	7.82		
		174	31.41			< LOD	11.1		
		175	31.37			11.96	7.7		
c-xr-hf-02-ss-351	9/13/2010 11:03	224	30.61	0 - 6 inches	None	< LOD	11.31	13.9	32.8
		225	30.84			15.08	8.28		
		226	31.71			< LOD	11.5		
		227	30.11			21.52	9.11		
c-xr-hf-02-ss-352	9/13/2010 12:34	279	30.47	0 - 6 inches	None	26	9.52	21.7	16.0
		280	30.6			17.53	8.4		
		281	30.77			21.47	8.72		
		282	30.6			21.64	8.94		
c-xr-hf-02-ss-353	9/13/2010 10:26	199	30.78	0 - 6 inches	None	27.41	9.32	27.2	7.1
		200	32.24			29.32	9.04		
		201	30.62			27.55	9.09		
		202	32.24			24.63	8.73		
c-xr-hf-02-ss-502	9/15/2010 12:11	512	30.44	0 - 6 inches	None	19.19	8.24	13.7	23.5
		513	30.61			13.93	7.59		
		514	30.53			13.37	7.46		
		515	30.61			< LOD	10.47		
c-xr-hf-02-ss-503	9/14/2010 15:19	432	30.44	0 - 6 inches	None	30.45	9.59	24.0	19.8
		433	31.03			24.52	8.64		
		434	30.45			20.82	8.49		
		435	31.93			20.09	8.42		
c-xr-hf-02-ss-504	9/14/2010 15:25	437	32.2	0 - 6 inches	None	25.83	8.83	30.5	14.5
		438	30.54			27.81	9.4		
		439	30.38			35.46	10.17		
		440	32.05			32.8	9.5		
c-xr-hf-02-ss-519	9/15/2010 14:39	533	30.39	0 - 6 inches	None	< LOD	10.22	12.7	14.5
		534	30.39			17.55	7.83		
		535	30.6			14.95	7.47		
		536	30.4			< LOD	11.18		

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Appendix G

Summary of Analytical Data

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**Summary of Analytical Results for Correlation Samples
Test America Laboratory**

Laboratory/ Field Sample ID	Percent Moisture %	Lead, mg/kg Qualifier	Lead Method Prep/Analysis
280-7524-1 C-XR-HF-01-SS-301	6.2	17	SW-846 3050B/6010C
280-7524-10 C-XR-HF-02-SB1-209	1.1	750	SW-846 3050B/6010C
280-7524-11 C-XR-HF-02-SB1-1001	0.98	1300	SW-846 3050B/6010C
280-7524-12 C-XR-HF-01-SS-109	3	210	SW-846 3050B/6010C
280-7524-13 C-XR-HF-02-SB2-209	1.6	430	SW-846 3050B/6010C
280-7524-1MS C-XR-HF-01-SS-301	Not Listed	55.4	SW-846 3050B/6010C
280-7524-1MSD C-XR-HF-01-SS-301	Not Listed	57.5	SW-846 3050B/6010C
280-7524-2 C-XR-HF-01-SS-306	3.6	26	SW-846 3050B/6010C
280-7524-3 C-XR-HF-01-SS-158	2.7	34	SW-846 3050B/6010C
280-7524-4 C-XR-HF-01-SB1-101	5.8	150	SW-846 3050B/6010C
280-7524-5 C-XR-HF-01-SB1-103	2	120	SW-846 3050B/6010C
280-7524-6 C-XR-HF-01-SB1-009	4.9	320	SW-846 3050B/6010C
280-7524-7 C-XR-HF-01-SS-114	1.3	400	SW-846 3050B/6010C
280-7524-8 C-XR-HF-01-SS-009	0.88	1800	SW-846 3050B/6010C
280-7524-9 C-XR-HF-01-SB1-105	4.6	1700	SW-846 3050B/6010C
SW-846 – Test Methods for Evaluation of Solid Waste, Physical Chemical Methods 3rd Edition, Nov. 1986 (with updates)			

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Appendix H

Data Validation Report

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MEMORANDUM

TO: Ian Roberts, Sky Research, Inc., Project Manager
Hancock Field

FROM: Eric Malarek, Shaw E&I Validator

SUBJECT: Hancock Field Data Validation – Lead
Test America Laboratories, Inc., SDG 280-7524-1

DATE: February 02, 2011

The purpose of this memorandum is to present the data validation report for the soil samples collected at Hancock Field on September 16, 2010. Solid samples were analyzed for lead using method USEPA SW-846 3050B/6010C. A total of thirteen solid samples and one rinse blank sample were validated. The sample IDs are:

Field Sample ID	Lab Sample ID	Field Sample ID	Lab Sample ID
C-XR-HF-01-SS-301	280-7524-1	C-XR-HF-01-SS-009	280-7524-8
C-XR-HF-01-SS-306	280-7524-2	C-XR-HF-01-SB1-105	280-7524-9
C-XR-HF-01-SS-158	280-7524-3	C-XR-HF-02-SB1-209	280-7524-10
C-XR-HF-01-SB1-101	280-7524-4	C-XR-HF-02-SB1-1001	280-7524-11
C-XR-HF-01-SB1-103	280-7524-5	C-XR-HF-01-SS-109	280-7524-12
C-XR-HF-01-SB1-009	280-7524-6	C-XR-HF-02-SB2-209	280-7524-13
C-XR-HF-01-SS-114	280-7524-7	C-RB-HF-1011	280-7524-14

Data were reviewed by Eric Malarek and validated using a combination of project UFP-QAPP, *Quality Systems Manual for Environmental Laboratories, Final Version 4.2, October 25, 2010* (DoD, 2010) (DoD QSM), and method-specific criteria. In some cases the criteria may differ and for this condition the more stringent was used for the evaluation. The data qualifier scheme was consistent with the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (October, 2004). Parameters evaluated are presented in **Table 1**. Data associated with parameters in compliance with quality control specifications have not been qualified. Data associated with parameters that did not comply with quality control specifications and directly impacted project data have been qualified in accordance with USEPA specifications.

Table 1 Laboratory Performance Criteria

Qualified		Parameter
Yes	No	
	X	Holding Times and Preservation
X		Initial and Continuing Calibration
	X	Blank Analysis
	X	ICP Interference Check Sample (ICS)
	X	Laboratory Control Sample
	X	Laboratory Sample Duplicate
X		Matrix Spike and Spike Duplicate
X		ICP Serial Dilution
X		Field Sample Duplicate
	X	Quantitation Verification

The quality of data collected in support of this sampling activity is considered acceptable with noted qualifications.


 Eric Malarek, Chemist

2/2/11
 Date

**HANCOCK FIELD VALIDATION REPORT
METALS REVIEW
SDG 280-7524-1**

I-Holding Times and Preservation

The primary objective is to ascertain the validity of results based on the holding time of the sample from time of collection to time of sample analysis. Holding time criteria: For solid matrices, the samples are shipped at ambient temperature for ICP metals (cool @4°C±2°C if with other tests) with a maximum holding time is 180 days (USEPA criteria). For aqueous matrices, the samples are shipped at cool @4°C±2°C and pH<2 HNO₃ for ICP metals with a maximum holding time is 180 days (USEPA criteria).

- Temperature Review: The temperature blank was sent with each cooler and recorded by the laboratory upon receipt. For samples collected on 09/16/10, the coolers were received by the primary laboratory (Test America - Denver) on 09/17/10 at 2.5°C and 1.3°C. Even though one of the cooler temperatures were below criteria; there were no impacts for the sample analysis and no qualifiers were applied based upon this outlier.
- Holding Time Review: The samples were collected on 09/16/10 for lead analysis. The soil samples were digested on 10/01/10 and analyzed on 10/04/10 for lead. Sample collection dates may be found on the attached form 1s. All criteria were met. No qualifiers were applied.

II-Initial and Continuing Calibration

Requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of the analysis run, and continuing calibration verification documents that the initial calibration is still valid.

ICP: 1- blank (DoD QSM <½ MRL)
3 - standards (≥0.995)
ICV/CCV (90-110%) (DoD QSM 90-110%)
MRL (80-120%) (DoD QSM 80-120%)
High Std. (95-105%)

- The samples were analyzed for ICP lead on 10/04/10. The lead CCVL 280-34356/60 (114%) analyzed on 10/04/10 @13:58 and CCVL 280-34356/60 (89%) analyzed on 10/04/10 @14:28 were outside criteria. Samples C-XR-HF-01-SS-301 (280-7524-1), C-XR-HF-01-SS-306 (280-7524-2), C-XR-HF-01-SS-158 (280-7524-3), C-XR-HF-01-SB1-101 (280-7524-4), C-XR-HF-01-SB1-103 (280-7524-5), C-XR-HF-01-SB1-009 (280-7524-6), C-XR-HF-01-SS-114 (280-7524-7), C-XR-HF-01-SS-009 (280-7524-8), C-XR-HF-01-SB1-105 (280-7524-9), C-XR-HF-02-SB1-209 (280-7524-10), C-XR-HF-02-SB1-1001 (280-7524-11), C-XR-HF-01-SS-109 (280-7524-12), and C-XR-HF-02-SB2-209 (280-7524-13) were bracketed by these CCVs and were detected for lead; therefore, they were qualified estimated "J" based upon the high/low recoveries. The lead ICVL 280-34648/10 (111%) analyzed on 10/05/10 @14:11, CCVL 280-34648/137 (114%) analyzed on 10/06/10 @13:54, and CCVL 280-34648/148 (121%) analyzed on 10/06/10 @14:23 were outside criteria. No reported samples were bracketed by these ICV/CCVs; therefore, no qualifiers were applied based upon these outliers. All other ICV/CCV/High Standard/MRL criteria were met for lead for all runs.

III-Blanks

Blanks (preparation and calibration blanks) are assessed to determine the existence and magnitude of contamination problems. No contaminants should be detected (i.e. <MDL) in any of the associated blanks. DoD QSM limits are <1/2 MRL for the method blank and <LOD (i.e. <2MDL) for the calibration blanks. Samples are qualified "U" when they are less than 5x the absolute value of the maximum blank concentration. **Table 2** summarizes the blank contamination analysis. Action levels are based upon dilution factor of one and for solid matrices were converted to soil values (soil conversion factor = 10 for µg/L → mg/kg for ICP) if needed. Rinse blank C-RB-HF-1011 (280-7524-14) applies to all soil samples in this SDG.

Table 2 Blank Contamination Analysis Summary

Analysis Date	Analysis	QC Blank ID	Max Conc. mg/kg	Action Level mg/kg	U qualified samples (for this SDG)
10/04/10	ICP Pb	ICB/CCBs	<LOD	NA	None
10/04/10	ICP Pb	MB-280-32320/1-A	<1/2*MRL	NA	None
10/02/10	ICP Pb	C-RB-HF-1011	<1/2*MRL	NA	None
Analysis Date	Analysis	QC Blank ID	Max Conc. µg/L	Action Level µg/L	U qualified samples (for this SDG)
10/02/10	ICP Pb	ICB/CCBs	<LOD	NA	None
10/02/10	ICP Pb	MB-280-33259/1-A	<1/2*MRL	NA	None

NA = Not Applicable

LOD = Limit of Detection

MRL = Method Reporting Limit

IV-ICP Interference Check Sample (ICS)

The ICP interference check sample (ICS) verifies interelement and background correction factors. ICP Interference Check is performed at the beginning and end of each sample analysis run. The project UFP-QAPP control limits are 80-120% (DoD QSM limits 80-120%).

- All criteria were met for all runs. No qualifiers were applied.

V-Laboratory Control Sample

The laboratory control sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. All aqueous LCS results must fall within the control limits. The DoD QSM solid LCS recovery limits are specified in Table G-19 of the DoD QSM (DoD, 2010) and are 80-120% (75-120% for silver). If the compound is not listed, then the laboratory criteria shall be used. The project UFP-QAPP limits are 80-120%. The lab limits are 80-120%.

- Sample LCS-280-32320/2-A was used as solid LCS for ICP lead analysis on 10/04/10. All criteria were met. No qualifiers were applied. Samples C-XR-HF-01-SS-301 (280-7524-1), C-XR-HF-01-SS-306 (280-7524-2), C-XR-HF-01-SS-158 (280-7524-3), C-XR-HF-01-SB1-101 (280-7524-4), C-XR-HF-01-SB1-103 (280-7524-5), C-XR-HF-01-SB1-009 (280-7524-6), C-XR-HF-01-SS-114 (280-7524-7), C-XR-HF-01-SS-009 (280-7524-8), C-XR-HF-01-SB1-105 (280-7524-9), C-XR-HF-02-SB1-209 (280-7524-10), C-XR-HF-02-SB1-1001 (280-7524-11), C-XR-HF-01-SS-109 (280-7524-12), and C-XR-HF-02-SB2-209 (280-7524-13) apply to this LCS.
- Sample LCS-280-33259/2-A was used as aqueous LCS for ICP lead analysis on 10/02/10. All criteria were met. No qualifiers were applied. Sample C-RB-HF-1011 (280-7524-14) applies to this LCS.

VI-Laboratory Duplicate Sample Analysis

Duplicate sample determinations are used to demonstrate acceptable method precision by the laboratory at the time of analysis. Duplicate analyses are also performed to generate data in order to determine the long-term precision of the analytical method on various matrices. RPDs must be within established control limits. DoD QSM limits for metals are $\leq 20\%$ RPD for ICP metals. The project UFP-QAPP and lab limits for metals are $\leq 35\%$ RPD.

- No laboratory duplicate was analyzed. Laboratory precision was evaluated using the Matrix Spike and Matrix Spike Duplicate (Section VII).

VII-Matrix Spike and Spike Duplicate

MS/MSD are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. Specific criteria include the analyses of matrix spike and matrix spike duplicate samples at a frequency of one MS and MSD per 20 samples of similar matrix. MS and MSD recoveries and relative percent differences between MS and MSD recoveries should be within the specified limits. DoD QSM solid MS/MSD recovery limits follow the LCS criteria and are specified in Table G-19 of the DoD QSM (DoD, 2010) and are 80-120% (75-120% for silver) and $\text{RPD} \leq 20\%$. If the compound is not listed, then the laboratory criteria shall be used. The lab limits are 80-120%; $\text{RPD} \leq 20\%$ and the project UFP-QAPP limits are 75-125%; $\text{RPD} \leq 35\%$. Post digestion spikes limits are 75-125% for ICP metals.

- Sample C-XR-HF-01-SS-301 (280-7524-1) was used as solid laboratory MS/MSD for ICP lead analysis on 10/04/10. Lead (77%, 79%) was below lab and DOD QSM criteria. The RPD was within criteria limits. The associated LCS/LCSD were within criteria (see section V) for lead. Lead was detected in all associated samples and was qualified estimated "J" based upon the low recoveries. Samples C-XR-HF-01-SS-301 (280-7524-1), C-XR-HF-01-SS-306 (280-7524-2), C-XR-HF-01-SS-158 (280-7524-3), C-XR-HF-01-SB1-101 (280-7524-4), C-XR-HF-01-SB1-103 (280-7524-5), C-XR-HF-01-SB1-009 (280-7524-6), C-XR-HF-01-SS-114 (280-7524-7), C-XR-HF-01-SS-009 (280-7524-8), C-XR-HF-01-SB1-105 (280-7524-9), C-XR-HF-02-SB1-209 (280-7524-10), C-XR-HF-02-SB1-1001 (280-7524-11), C-XR-HF-01-SS-109 (280-7524-12), and C-XR-HF-02-SB2-209 (280-7524-13) apply to this MS/MSD.
- Sample C-RB-HF-1011 (280-7524-14) was used as solid laboratory MS/MSD for ICP lead analysis on 10/02/10. All criteria were met. No qualifiers were applied. Sample C-RB-HF-1011 (280-7524-14) applies to this MS/MSD.

VIII-ICP Serial Dilution

An ICP serial dilution is performed to determine whether significant physical or chemical interferences exist due to sample matrix at high concentrations. An analysis of a 5-fold dilution should agree within 10% difference (%D) of the original result when the concentration in sample is a factor of 50 above MDL.

- The serial dilution for ICP lead was analyzed on 10/04/10 using solid sample C-XR-HF-01-SS-301 (280-7524-1). Lead (13%) was outside criteria limits. Lead was detected in all associated samples and was qualified estimated "J" based upon the high %D. Samples C-XR-HF-01-SS-301 (280-7524-1), C-XR-HF-01-SS-306 (280-7524-2), C-XR-HF-01-SS-158 (280-7524-3), C-XR-HF-01-SB1-101 (280-7524-4), C-XR-HF-01-SB1-103 (280-7524-5), C-XR-HF-01-SB1-009 (280-7524-6), C-XR-HF-01-SS-114 (280-7524-7), C-XR-HF-01-SS-009 (280-7524-8), C-XR-HF-01-SB1-105 (280-7524-9), C-XR-HF-02-SB1-209 (280-7524-10), C-XR-HF-02-SB1-1001 (280-7524-11), C-XR-HF-01-SS-109 (280-7524-12), and C-XR-HF-02-SB2-209 (280-7524-13) apply to this serial dilution.
- The serial dilution for ICP lead was analyzed on 10/02/10 using aqueous sample C-RB-HF-1011 (280-7524-14). All criteria were met. No qualifiers were applied. Sample C-RB-HF-1011 (280-7524-14) applies to this serial dilution.

IX-Field Duplicate Sample Analysis

Field duplicates were collected to identify the cumulative precision of the sampling and analytical process and sent to the laboratory blind. The RPD was calculated only for those analytes which were detected at levels exceeding the method reporting limits in both samples of the duplicate pair. Analytes that were rejected (R-qualified) in either sample of the duplicate pair were excluded from the duplicate assessment. The project precision control criterion was established at 50% RPD for the solid samples.

- Field soil sample duplicate pair C-XR-HF-02-SB1-209 (280-7524-10) and C-XR-HF-02-SB1-1001 (280-7524-11) was collected for lead. Lead was detected in the original sample at 750 mg/kg and at 1300 mg/kg in the duplicate pair; resulting in a RPD of 53.7%. Lead was detected in the duplicate pair and was qualified estimated "J" based upon the high RPD.

X-Quantitation Verification

The accuracy of analytical results is verified through the calculation of several parameters. The percent difference (%D) between the calculated and the reported values should be within 10%. Any sample value >MDL and <MRL or <3*MDL (whichever is greater) was qualified as estimated, "J." The following calculations were performed for verification.

Sample: C-XR-HF-01-SS-301 (280-7524-1), Lead

$$\text{Conc. (mg/kg)} = \{(\text{conc. } \mu\text{g/L}) * (\text{Final Volume L}) * (\text{DF})\} / \{(\text{Weight Sample g}) * (\text{Fraction Solids})\}$$

$$\text{Conc. (mg/kg)} = \{(177.29 \mu\text{g/L}) * (0.100 \text{ L}) * (1)\} / \{(1.12 \text{ g}) * (0.9380)\} = 17 \mu\text{g/g} = 17 \text{ mg/kg}$$

Reported concentration = 17 mg/kg

%D = 0.0%

Values were within 10% difference.

Laboratory and Data Validation Qualifiers

Qualifier	Definition
Laboratory Qualifiers¹	
No Code	Confirmed identification.
U	Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
J	Estimated: The analyte was positively identified; the quantitation is estimation.
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
N	Non-target analyte: The analyte is a tentatively identified compound (using mass spectroscopy).
Q	One or more quality control criteria failed.
USEPA Data Validation Qualifiers²	
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The positive result is an estimated quantity. The associated numerical value is the appropriate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meeting the Quality Control criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The reported quantitation limit is approximate and may be inaccurate or imprecise.

¹The noted laboratory qualifiers are a minimum. If a laboratory has more and they are consistent with DoD and properly defined, the laboratory may use them. Data qualifiers may be combined when appropriate. Ref.: *DOD Quality Systems Manual for Environmental Laboratories, Final Version 4.2* (DoD, 2010).

²The USEPA data validation qualifiers are referenced from *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (October, 2004).

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-301

Lab Sample ID: 280-7524-1

Date Sampled: 09/16/2010 1348

Client Matrix: Solid

% Moisture: 6.2

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.12 g

Date Analyzed: 10/04/2010 1333

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		17	Q J J	0.26	0.86

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-306

Lab Sample ID: 280-7524-2

Date Sampled: 09/16/2010 1405

Client Matrix: Solid

% Moisture: 3.6

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.11 g

Date Analyzed: 10/04/2010 1344

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		26	Q J	0.25	0.84

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-158

Lab Sample ID: 280-7524-3

Date Sampled: 09/16/2010 1414

Client Matrix: Solid

% Moisture: 2.7

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.18 g

Date Analyzed: 10/04/2010 1347

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		34	Q J	0.24	0.78

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SB1-101

Lab Sample ID: 280-7524-4

Date Sampled: 09/16/2010 1433

Client Matrix: Solid

% Moisture: 5.8

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.06 g

Date Analyzed: 10/04/2010 1349

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		150	Q J	0.27	0.90

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SB1-103

Lab Sample ID: 280-7524-5

Date Sampled: 09/16/2010 1441

Client Matrix: Solid

% Moisture: 2.0

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.03 g

Date Analyzed: 10/04/2010 1400

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		120	Q J	0.27	0.89

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SB1-009

Lab Sample ID: 280-7524-6

Date Sampled: 09/16/2010 1458

Client Matrix: Solid

% Moisture: 4.9

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.20 g

Date Analyzed: 10/04/2010 1403

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		320	Q J	0.24	0.79

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-114

Lab Sample ID: 280-7524-7

Date Sampled: 09/16/2010 1506

Client Matrix: Solid

% Moisture: 1.3

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.12 g

Date Analyzed: 10/04/2010 1405

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		400	Q J	0.24	0.81

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-009

Lab Sample ID: 280-7524-8

Date Sampled: 09/16/2010 1518

Client Matrix: Solid

% Moisture: 0.9

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.16 g

Date Analyzed: 10/04/2010 1407

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		1800	Q 	0.23	0.78

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Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SB1-105

Lab Sample ID: 280-7524-9

Date Sampled: 09/16/2010 1525

Client Matrix: Solid

% Moisture: 4.6

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.11 g

Date Analyzed: 10/04/2010 1410

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		1700	Q 	0.25	0.85

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-02-SB1-209

Lab Sample ID: 280-7524-10

Date Sampled: 09/16/2010 1534

Client Matrix: Solid

% Moisture: 1.1

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.06 g

Date Analyzed: 10/04/2010 1412

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		750	Q J	0.26	0.86

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-02-SB1-1001

Lab Sample ID: 280-7524-11

Date Sampled: 09/16/2010 1541

Client Matrix: Solid

% Moisture: 1.0

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.06 g

Date Analyzed: 10/04/2010 1414

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		1300	Q J	0.26	0.86

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-01-SS-109

Lab Sample ID: 280-7524-12

Date Sampled: 09/16/2010 1551

Client Matrix: Solid

% Moisture: 3.0

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.04 g

Date Analyzed: 10/04/2010 1417

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		210	Q J	0.27	0.89

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-XR-HF-02-SB2-209

Lab Sample ID: 280-7524-13

Date Sampled: 09/16/2010 1559

Client Matrix: Solid

% Moisture: 1.6

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34356

Instrument ID: MT_026

Preparation: 3050B

Prep Batch: 280-32320

Lab File ID: 26a100410.txt

Dilution: 1.0

Initial Weight/Volume: 1.07 g

Date Analyzed: 10/04/2010 1419

Final Weight/Volume: 100 mL

Date Prepared: 10/01/2010 1400

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Lead		430	Q J	0.26	0.86

Form I Copy

Analytical Data

Client: Sky Research Inc.

Job Number: 280-7524-1

Client Sample ID: C-RB-HF-1011

Lab Sample ID: 280-7524-14

Client Matrix: Water

Date Sampled: 09/16/2010 1615

Date Received: 09/17/2010 0900

6010C Metals (ICP)

Method: 6010C

Analysis Batch: 280-34055

Instrument ID: MT_026

Preparation: 3010A

Prep Batch: 280-33259

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 50 mL

Date Analyzed: 10/02/2010 0433

Final Weight/Volume: 50 mL

Date Prepared: 09/29/2010 1400

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Lead	2.6	U Q	2.6	15

HANCOCK DATA
280-7524-1_Qua08

Lab Name	Lot ID	Lab Sample ID	Client Sample ID	Matrix	Sample Type	Collected	Received	Prepped	Analyzed	Method	Prep Batch	Prep Type	Dilution	Percent Moisture	Analyte	CAS	Analyte Type	Result	TPU	Spike Amount	Footnotes	Unit	RL/CRDL	MDL/MDA	Percent Recovery	RPD/RER	Lower Limit	Upper Limit	RPD/RER Limit
DEN	280-7524-1	280-7524-14	C-RB-HF-1011	Water	MS	9/16/2010 16:15	9/17/2010 9:00	9/29/2010 14:00	10/2/2010 4:39	SW846 6010C	280-33259	Total	1		Lead	7439-92-1	Target	438		500	Q	ug/L	15	2.6	88	4	80	120	20
DEN	280-7524-1	280-7524-14	C-RB-HF-1011	Water	MSD	9/16/2010 16:15	9/17/2010 9:00	9/29/2010 14:00	10/2/2010 4:42	SW846 6010C	280-33259	Total	1		Lead	7439-92-1	Target	455		500	Q	ug/L	15	2.6	91	4	80	120	20
DEN	280-7524-1	280-7524-1	C-XR-HF-01-SS-301	Solid	SA	9/16/2010 13:48	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:33	SW846 6010C	280-32320	Total	1	6.2	Lead	7439-92-1	Target	17			Q J	mg/Kg	0.86	0.26					
DEN	280-7524-1	280-7524-10	C-XR-HF-02-SB1-209	Solid	SA	9/16/2010 15:34	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:12	SW846 6010C	280-32320	Total	1	1.1	Lead	7439-92-1	Target	750			Q	mg/Kg	0.86	0.26					
DEN	280-7524-1	280-7524-11	C-XR-HF-02-SB1-1001	Solid	SA	9/16/2010 15:41	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:14	SW846 6010C	280-32320	Total	1	1	Lead	7439-92-1	Target	1300			Q	mg/Kg	0.86	0.26					
DEN	280-7524-1	280-7524-12	C-XR-HF-01-SS-109	Solid	SA	9/16/2010 15:51	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:17	SW846 6010C	280-32320	Total	1	3	Lead	7439-92-1	Target	210			Q	mg/Kg	0.89	0.27					
DEN	280-7524-1	280-7524-13	C-XR-HF-02-SB2-209	Solid	SA	9/16/2010 15:59	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:19	SW846 6010C	280-32320	Total	1	1.6	Lead	7439-92-1	Target	430			Q	mg/Kg	0.86	0.26					
DEN	280-7524-1	280-7524-14	C-RB-HF-1011	Water	SA	9/16/2010 16:15	9/17/2010 9:00	9/29/2010 14:00	10/2/2010 4:33	SW846 6010C	280-33259	Total	1		Lead	7439-92-1	Target	2.6			U Q	ug/L	15	2.6					
DEN	280-7524-1	280-7524-1	C-XR-HF-01-SS-301	Solid	MS	9/16/2010 13:48	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:37	SW846 6010C	280-32320	Total	1	6.2	Lead	7439-92-1	Target	55.4		49.8	Q J	mg/Kg	0.9	0.27	77	4	80	120	20
DEN	280-7524-1	280-7524-1	C-XR-HF-01-SS-301	Solid	MSD	9/16/2010 13:48	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:40	SW846 6010C	280-32320	Total	1	6.2	Lead	7439-92-1	Target	57.5		51.2	Q J	mg/Kg	0.92	0.28	79	4	80	120	20
DEN	280-7524-1	280-7524-2	C-XR-HF-01-SS-306	Solid	SA	9/16/2010 14:05	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:44	SW846 6010C	280-32320	Total	1	3.6	Lead	7439-92-1	Target	26			Q	mg/Kg	0.84	0.25					
DEN	280-7524-1	280-7524-3	C-XR-HF-01-SS-158	Solid	SA	9/16/2010 14:14	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:47	SW846 6010C	280-32320	Total	1	2.7	Lead	7439-92-1	Target	34			Q	mg/Kg	0.78	0.24					
DEN	280-7524-1	280-7524-4	C-XR-HF-01-SB1-101	Solid	SA	9/16/2010 14:33	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 13:49	SW846 6010C	280-32320	Total	1	5.8	Lead	7439-92-1	Target	150			Q	mg/Kg	0.9	0.27					
DEN	280-7524-1	280-7524-5	C-XR-HF-01-SB1-103	Solid	SA	9/16/2010 14:41	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:00	SW846 6010C	280-32320	Total	1	2	Lead	7439-92-1	Target	120			Q	mg/Kg	0.89	0.27					
DEN	280-7524-1	280-7524-6	C-XR-HF-01-SB1-009	Solid	SA	9/16/2010 14:58	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:03	SW846 6010C	280-32320	Total	1	4.9	Lead	7439-92-1	Target	320			Q	mg/Kg	0.79	0.24					
DEN	280-7524-1	280-7524-7	C-XR-HF-01-SS-114	Solid	SA	9/16/2010 15:06	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:05	SW846 6010C	280-32320	Total	1	1.3	Lead	7439-92-1	Target	400			Q	mg/Kg	0.81	0.24					
DEN	280-7524-1	280-7524-8	C-XR-HF-01-SS-009	Solid	SA	9/16/2010 15:18	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:07	SW846 6010C	280-32320	Total	1	0.9	Lead	7439-92-1	Target	1800			Q	mg/Kg	0.78	0.23					
DEN	280-7524-1	280-7524-9	C-XR-HF-01-SB1-105	Solid	SA	9/16/2010 15:25	9/17/2010 9:00	10/1/2010 14:00	10/4/2010 14:10	SW846 6010C	280-32320	Total	1	4.6	Lead	7439-92-1	Target	1700			Q	mg/Kg	0.85	0.25					
DEN	280-7524-1	LCS 280-32320/2-A	CHECK SAMPLE	Solid	LCS	10/1/2010 14:00	10/1/2010 14:00	10/1/2010 14:00	10/4/2010 13:31	SW846 6010C	280-32320	Total	1		Lead	7439-92-1	Target	45.7		50	Q	mg/Kg	0.9	0.27	91		80	120	
DEN	280-7524-1	LCS 280-33259/2-A	CHECK SAMPLE	Water	LCS	9/29/2010 14:00	9/29/2010 14:00	9/29/2010 14:00	10/2/2010 4:31	SW846 6010C	280-33259	Total	1		Lead	7439-92-1	Target	442		500	Q	ug/L	15	2.6	88		80	120	
DEN	280-7524-1	MB 280-32320/1-A	INTRA-LAB BLANK	Solid	MB	10/1/2010 14:00	10/1/2010 14:00	10/1/2010 14:00	10/4/2010 13:28	SW846 6010C	280-32320	Total	1		Lead	7439-92-1	Target	0.27			U Q	mg/Kg	0.9	0.27					
DEN	280-7524-1	MB 280-33259/1-A	INTRA-LAB BLANK	Water	MB	9/29/2010 14:00	9/29/2010 14:00	9/29/2010 14:00	10/2/2010 4:28	SW846 6010C	280-33259	Total	1		Lead	7439-92-1	Target	2.6			U Q	ug/L	15	2.6					

Appendix I

MRSPS Tables

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Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table A

MRS Background Information

Munitions Response Site Name: Small Arms Range and Shooting-In Buttress

Component: Air Force

Installation/Property Name: HANCOCK

Location (City, County, State): Syracuse, Onondaga, NY

Site Name/Project name (Project No.): Small Arms Range and Shooting-In Buttress

Date Information Entered/Updated: 2/9/2012 11:43:24 AM

Point of Contact Name: Brent Lynch

Point of Contact Phone: (315) 233-2111

Project Phase (check only one):

☐ PA	☒ SI	☐ RI	☐ FS	☐ RD
☐ RA	☐ RIP	☐ RC		

Media Evaluated (check all that apply):

☐ Groundwater	☐ Sediment (human receptor)
☒ Surface soil	☐ Surface Water (ecological receptor)
☐ Sediment (ecological receptor)	☐ Surface Water (human receptor)

MRS Summary:

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

The Small Arms Range and Shooting-In Butt is located in the south-central portion of Tract II. SR001 was originally 3.7 acres. The MRA was split based on the modified action level for lead of 261 mg/kg and the presence of 40mm practice grenade debris. The new updated acreage for SR001a is 1.8 acres. SR001a is recommended for NFA.

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse. The majority of the site is situated in Tract II, which is part of installation property. The area consists of vacant land with remnants of small arms facilities.

Description of Pathways for Human and Ecological Receptors:

Lead was detected at this site, soil exposure pathways are considered complete.

Surface water and sediment pathways are incomplete.

Groundwater pathways are incomplete.

Description of Receptors (Human and Ecological):

Human receptors include current and future authorized site personnel, contractors, and trespassers. Potential future receptors could also include residential and commercial/industrial workers.

Ecological receptors (plants and animals) exists near and within the Hancock Field ANGB boundaries. Based on the results of the focused SLERA, lead was at concentrations orders of magnitude above the ecological risk screening criterion intended to be protective of soil invertebrates, plants and wildlife. Receptor-specific soil screening levels were also exceeded for plants, herbivorous and insectivorous birds and insectivorous and carnivorous mammals.

CSE Report Reference (Section, Page #):

GENERAL - 5.2.7/8.2.1.2/8.2.2.2/8.2.3.2/9.4.3/10.3.1.2, LOCATION - 2.1/5.2, POC - 1.3, CONTRACTOR - 1.3

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 1

EHE Module: Munitions Type Data Element Worksheet

Classification	Description	Score
Sensitive	- All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high explosive (HE) grenades, white phosphorus (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions]. - All hand grenades containing energetic filler. - Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	- All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." - All DMM containing a high-explosive filler that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	25
Pyrotechnic (used or damaged)	- All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). - All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	20
High explosive (unused)	- All DMM containing a high explosive filler that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	15
Propellant	- All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). - All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: - Damaged by burning or detonation - Deteriorated to the point of instability.	15
Bulk secondary high explosives, pyrotechnics, or propellant	- All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated. - Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10
Pyrotechnic (not used or damaged)	- All DMM containing a pyrotechnic fillers (i.e., red phosphorous), other than white phosphorous filler, that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	10
Practice	- All UXO that are practice munitions that are not associated with a sensitive fuze. - All DMM that are practice munitions that are not associated with a sensitive fuze and that have not: - Been damaged by burning or detonation - Deteriorated to the point of instability.	5
Riot control	- All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3
Small arms	- All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets) were used or are present on the MRS is required for selection of this category.].	2
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
MUNITIONS TYPE	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 30).	5

Site-specific data used in selection MUNITIONS TYPE classification:

Small arms debris. 40mm practice grenade debris. Additionally, information has been identified that the access path to the small arms are 40mm practice grenade debris a was used for M-203 training with 40mm practice grenades. (Section 5.2.2)

Remnants of a metal smoke canister (non-HE) and non-lethal offensive grenade debris were also observed in the vegetation south of the road. (Section 5.2.7.1)

CSE Report Reference (Section, Page #): 5.2.2/5.2.7.1

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 2

EHE Module: Source of Hazard Data Element Worksheet

Classification	Description	Score
Former Range	- The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10
Former Munitions treatment (i.e., OB/OD unit)	- The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	- The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	- The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	- The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	- The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	- The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	- The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	- The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	- The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0
Source of Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	6

Site-specific data characteristics used to select the SOURCE OF HAZARD classification:

Small arms debris. 40mm practice grenade debris. Additionally, information has been identified that the access path to the small arms area was used for M-203 training with 40mm practice grenades. (Section 5.2.2) Remnants of a metal smoke canister (non-HE) and non-lethal offensive grenade debris were also observed in the vegetation south of the road.

Remnants of a metal smoke canister (non-HE) and non-lethal offensive grenade debris were also observed in the vegetation south of the road. (Section 5.2.7.1)

CSE Report Reference (Section, Page #): 5.2.2/5.2.7

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 3

EHE Module: Information on the Location of Munitions Data Element Worksheet

Classification	Description	Score
Confirmed surface	- Physical evidence indicates that there are UXO or DMM on the surface of the MRS - Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	- There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	- There is historical evidence indicating that UXO or DMM may be present at the MRS.	5
Subsurface, physical constraint	- There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2
Small arms range (regardless of location)	- The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
Location of Munitions	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 25).	10

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

40mm practice grenade debris were observed along the length of the road parallel to the southern range limiting berm. Small arms and evidence of small arms activity located in the southwest portion of the MRS. Additionally, information has been identified that the access path to the small arms area was used for M-203 training with 40mm practice grenades. (Section 5.2.2)

Remnants of a metal smoke canister (non-HE) and non-lethal offensive grenade debris were also observed in the vegetation south of the road. (Section 5.2.7.1)

CSE Report Reference (Section, Page #): 5.2.2/5.2.7

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 4

EHE Module: Ease of Access Data Element Worksheet

Classification	Description	Score
No barrier	- There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	- There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	- There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	- There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0
Ease of Access	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	8

Site-specific characteristics used to select the EASE OF ACCESS classification:

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001a) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County.

According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including educational an facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.2.5/5.7.2/5.2.6.1/5.2.6.2

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 5

EHE Module: Status of Property Data Element Worksheet

Classification	Description	Score
Non-DoD control	- The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0
Status of Property	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics used to select the EASE OF ACCESS classification:

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001a) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County.

According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including educational an facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.2.2/5.2.7

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 6

EHE Module: Population Density Data Element Worksheet

Classification	Description	Score
> 500 persons per square mile	- There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100- 500 persons per square mile	- There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	- There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1
Population Density	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics that helped select the POPULATION DENSITY classification

CSE Report Reference (Section, Page #): 5.2.5/5.7.2/5.2.6.1/5.2.6.2

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 7

EHE Module: Population Near Hazard Data Element Worksheet

Classification	Description	Score
26 or more inhabited structures	- There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25 inhabited structures	- There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15 inhabited structures	- There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10 inhabited structures	- There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5 inhabited structures	- There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0 inhabited structures	- There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Population Near Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the POPULATION NEAR HAZARD classification:

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001a) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

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According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including educational an facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.2.5/5.7.2/5.2.6.1/5.2.6.2

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 8

EHE Module: Types of Activities/Structures Data Element Worksheet

Classification	Description	Score
Residential, educational, or subsistence	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	- There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1
Types of Activities/Structures	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001a) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County.

According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including educational an facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.2.5/5.7.2/5.2.6.1/5.2.6.2

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Worksheet

Classification	Description	Score
Ecological and cultural resources present	- There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	- There are ecological resources present on the MRS.	3
Cultural resources present	- There are cultural resources present on the MRS.	3
No ecological or cultural resources present	- There are no ecological resources or cultural resources present on the MRS.	0
Ecological and/or Cultural Resources	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the ECOLOGICAL AND/OR CULTURAL RESOURCES classification:

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001a) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County.

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CSE Report Reference (Section, Page #): 5.2.5/5.7.2/5.2.6.1/5.2.6.2

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 10

Determining the EHE Module Rating

Source		Score
Explosive Hazard Factor Data Elements		
Munitions Type	Table 1	5
Source of Hazard	Table 2	6
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 3	10
Ease of Access	Table 4	8
Status of Property	Table 5	5
Receptors Factor Data Elements		
Population Density	Table 6	5
Population Near Hazard	Table 7	5
Types of Activities/Structures	Table 8	5
Ecological and/or Cultural Resources	Table 9	0
Sum		49

EHE Module Value	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected Explosive Hazard
	Evaluation Pending

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 20

Determining the CHE Module Rating

Source		Score
CWM Hazard Factor Data Elements		
CWM Configuration	Table 11	N/A
Source of CWM	Table 12	N/A
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 13	N/A
Ease of Access	Table 14	N/A
Status of Property	Table 15	N/A
Receptors Factor Data Elements		
Population Density	Table 16	N/A
Population Near Hazard	Table 17	N/A
Types of Activities/Structures	Table 18	N/A
Ecological and/or Cultural Resources	Table 19	N/A
Sum		N/A

CHE Module Value	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected CWM Hazard
	Evaluation Pending

Tables 11-19 were not generated because there is no known or suspected CWM hazard at the MRS.

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 21**HHE Module: Groundwater Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value		CHF VALUE	NA
Migratory Pathway Factor			
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Receptor Factor			
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).		H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).		M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

No groundwater samples were collected during CSE Phase II activities.

CSE Report Reference (Section, Page #):

--

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 22**HHE Module: Surface Water - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to surface water to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

No surface water samples were collected during CSE Phase II activities.

CSE Report Reference (Section, Page #):

--

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 23**HHE Module: Sediment - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move		M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

No sediment samples were collected during CSE Phase II activities.

CSE Report Reference (Section, Page #):

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 24**HHE Module: Surface Water - Ecological Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA

Migratory Pathway Factor

Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).	L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Receptor Factor

Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Alternative Module Ratings

Prioritization No Longer Required

No Known or Suspected Hazard

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

CSE Report Reference (Section, Page #):

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 25**HHE Module: Sediment - Ecological Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H
Potential	potential for receptors to have access to sediment to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF

--

Sample comments:

No sediment samples were collected during CSE Phase II activities.

CSE Report Reference (Section, Page #):

--

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 26**HHE Module: Soil - Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
Lead	199	400	0.5
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	0.5
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value		CHF VALUE	L
Migratory Pathway Factor			
Evident	Analytical data or observable evidence indicates that contamination in the soil is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the soil to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		L
Receptor Factor			
Identified	Identified receptors to have access to soil to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to soil to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to soil to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		L
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Lead was detected at this site, soil exposure pathways are considered complete.

Rationale for Selection of RF:

Lead was detected at this site, soil exposure pathways are considered complete.

Sample comments:

All samples were below the USEPA Residential Screening Level for lead of 400mg/ kg.All samples were also below the modified action level for lead of 261 mg/kg.

CSE Report Reference (Section, Page #):

5.2.7/8.2.1.2

Installation: HANCOCK**MAJCOM:** ANG**MRAID:** SASIB**MRS:** SR001a**FFID:****Table 27****Determining the HHE Module Rating**

Media Source	Contaminant Hazard Factor	Migratory Pathway Factor Value	Receptor Factor Value		3-Letter Ratings (Hs-Ms-Ls)		Media Rating (A-G)
Groundwater (Table 21)	NA	NA	NA		NA		NA
Surface Water/Human Endpoint (Table 22)	NA	NA	NA		NA		NA
Sediment/Human Endpoint (Table 23)	NA	NA	NA		NA		NA
Surface Water/Ecological Endpoint (Table 24)	NA	NA	NA		NA		NA
Sediment/Ecological Endpoint (Table 25)	NA	NA	NA		NA		NA
Soil (Table 26)	L	L	L		LLL		G

HHE Ratings (for reference only)

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected MC Hazard
	Evaluation Pending
HHE Module Ratings	G

Installation: HANCOCK

MAJCOM: ANG

MRAID: SASIB

MRS: SR001a

FFID:

Table 28

MRS Priority

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Prioritization No Longer Required		Prioritization No Longer Required		Prioritization No Longer Required	
No Known or Suspected Hazard		No Known or Suspected Hazard		No Known or Suspected Hazard	
Evaluation Pending		Evaluation Pending		Evaluation Pending	
MRS Priority				6	

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table A

MRS Background Information

Munitions Response Site Name: Small Arms and Shooting-In Buttress

Component: Air Force

Installation/Property Name: Hancock

Location (City, County, State): Syracuse, Onondaga, NY

Site Name/Project name (Project No.): Small Arms and Shooting-In Buttress

Date Information Entered/Updated: 2/9/2012 11:41:27 AM

Point of Contact Name: Brent Lynch

Point of Contact Phone: (315) 233-2111

Project Phase (check only one):

☐ PA	☒ SI	☐ RI	☐ FS	☐ RD
☐ RA	☐ RIP	☐ RC		

Media Evaluated (check all that apply):

☐ Groundwater	☐ Sediment (human receptor)
☒ Surface soil	☐ Surface Water (ecological receptor)
☐ Sediment (ecological receptor)	☐ Surface Water (human receptor)

MRS Summary:

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

The Small Arms Range and Shooting-In Butt (SR001) is located in the south-central portion of Tract II. SR001 was originally 3.7 acres. The MRA was split based on the modified action level for lead of 261 mg/kg and presence of 40mm practice grenade debris. The new updated acreage for SR001 is 1.9 acres. The area consists of vacant land with remnants of small arms facilities.

Description of Pathways for Human and Ecological Receptors:

Lead was detected at this site, soil exposure pathways are considered complete.

Surface water and sediment pathways are incomplete.

Groundwater pathways are incomplete.

Description of Receptors (Human and Ecological):

Human receptors include current and future authorized site personnel, contractors, and trespassers. Potential future receptors could also include residential and commercial/industrial workers.

Ecological receptors (plant and animal) exists near and within the Hancock Field ANGB boundaries. Based on the results of the focused SLERA, lead was at concentrations orders of magnitude above the ecological risk screening criterion intended to be protective of soil invertebrates, plants and wildlife. Receptor-specific soil screening levels were also exceeded for plants, herbivorous and insectivorous birds and insectivorous and carnivorous mammals.

Consequently, additional ecological evaluation is recommended for the MRA because elevated lead concentrations in soil pose a potential for adverse biological effects.

CSE Report Reference (Section, Page #):

GENERAL - 5.2.7/8.2.1.2/8.2.2.2/8.2.3.2/9.4.3/10.3.1.2, LOCATION - 2.1/5.2, POC - 1.3, CONTRACTOR - 1.3

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 1

EHE Module: Munitions Type Data Element Worksheet

Classification	Description	Score
Sensitive	- All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high explosive (HE) grenades, white phosphorus (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions]. - All hand grenades containing energetic filler. - Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	- All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." - All DMM containing a high-explosive filler that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	25
Pyrotechnic (used or damaged)	- All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). - All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	20
High explosive (unused)	- All DMM containing a high explosive filler that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	15
Propellant	- All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). - All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: - Damaged by burning or detonation - Deteriorated to the point of instability.	15
Bulk secondary high explosives, pyrotechnics, or propellant	- All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated. - Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10
Pyrotechnic (not used or damaged)	- All DMM containing a pyrotechnic fillers (i.e., red phosphorous), other than white phosphorous filler, that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	10
Practice	- All UXO that are practice munitions that are not associated with a sensitive fuze. - All DMM that are practice munitions that are not associated with a sensitive fuze and that have not: - Been damaged by burning or detonation - Deteriorated to the point of instability.	5
Riot control	- All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3
Small arms	- All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets) were used or are present on the MRS is required for selection of this category.].	2
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
MUNITIONS TYPE	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 30).	5

Site-specific data used in selection MUNITIONS TYPE classification:

Small arms debris.

CSE Report Reference (Section, Page #): 5.2.7

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 2

EHE Module: Source of Hazard Data Element Worksheet

Classification	Description	Score
Former Range	- The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10
Former Munitions treatment (i.e., OB/OD unit)	- The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	- The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	- The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	- The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	- The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	- The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	- The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	- The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	- The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0
Source of Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	6

Site-specific data characteristics used to select the SOURCE OF HAZARD classification:

Small arms debris was documented within SR001.

CSE Report Reference (Section, Page #): 5.2.7

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 3

EHE Module: Information on the Location of Munitions Data Element Worksheet

Classification	Description	Score
Confirmed surface	- Physical evidence indicates that there are UXO or DMM on the surface of the MRS - Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	- There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	- There is historical evidence indicating that UXO or DMM may be present at the MRS.	5
Subsurface, physical constraint	- There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2
Small arms range (regardless of location)	- The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
Location of Munitions	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 25).	10

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

Located within the limiting safety berms. Berms are located to the north and south and to the eastern boundaries of the MRS.

CSE Report Reference (Section, Page #): 5.2.7

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 4

EHE Module: Ease of Access Data Element Worksheet

Classification	Description	Score
No barrier	- There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	- There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	- There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	- There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0
Ease of Access	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	8

Site-specific characteristics used to select the EASE OF ACCESS classification:

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): U.S Census Bureau/5.2.7/5.2.6.1/5.2.6.2

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 5

EHE Module: Status of Property Data Element Worksheet

Classification	Description	Score
Non-DoD control	- The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0
Status of Property	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics used to select the EASE OF ACCESS classification:

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.2.7

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 6

EHE Module: Population Density Data Element Worksheet

Classification	Description	Score
> 500 persons per square mile	- There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100- 500 persons per square mile	- There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	- There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1
Population Density	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics that helped select the POPULATION DENSITY classification

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): U.S Census Bureau/5.2.7/5.2.6.1/5.2.6.2

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 7

EHE Module: Population Near Hazard Data Element Worksheet

Classification	Description	Score
26 or more inhabited structures	- There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25 inhabited structures	- There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15 inhabited structures	- There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10 inhabited structures	- There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5 inhabited structures	- There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0 inhabited structures	- There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Population Near Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the POPULATION NEAR HAZARD classification:

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): U.S Census Bureau/5.2.7/5.2.6.1/5.2.6.2

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 8

EHE Module: Types of Activities/Structures Data Element Worksheet

Classification	Description	Score
Residential, educational, or subsistence	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	- There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1
Types of Activities/Structures	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): U.S Census Bureau/5.2.7/5.2.6.1/5.2.6.2

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Worksheet

Classification	Description	Score
Ecological and cultural resources present	- There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	- There are ecological resources present on the MRS.	3
Cultural resources present	- There are cultural resources present on the MRS.	3
No ecological or cultural resources present	- There are no ecological resources or cultural resources present on the MRS.	0
Ecological and/or Cultural Resources	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the ECOLOGICAL AND/OR CULTURAL RESOURCES classification:

The southern portion of the MRS extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse.

The Small Arms Range and Shooting-In Buttress (SR001) is accessible to the public. Evidence of civilian use is present in the form of abandoned furniture and trash as well as informal shooting targets such as trash cans, plastic and paper silhouettes, and a Styrofoam deer hunting target.

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondage County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): U.S Census Bureau/5.2.7/5.2.6.1/5.2.6.2

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 10

Determining the EHE Module Rating

Source		Score
Explosive Hazard Factor Data Elements		
Munitions Type	Table 1	5
Source of Hazard	Table 2	6
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 3	10
Ease of Access	Table 4	8
Status of Property	Table 5	5
Receptors Factor Data Elements		
Population Density	Table 6	5
Population Near Hazard	Table 7	5
Types of Activities/Structures	Table 8	5
Ecological and/or Cultural Resources	Table 9	0
Sum		49

EHE Module Value	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected Explosive Hazard
	Evaluation Pending

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 20

Determining the CHE Module Rating

Source		Score
CWM Hazard Factor Data Elements		
CWM Configuration	Table 11	N/A
Source of CWM	Table 12	N/A
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 13	N/A
Ease of Access	Table 14	N/A
Status of Property	Table 15	N/A
Receptors Factor Data Elements		
Population Density	Table 16	N/A
Population Near Hazard	Table 17	N/A
Types of Activities/Structures	Table 18	N/A
Ecological and/or Cultural Resources	Table 19	N/A
Sum		N/A

CHE Module Value	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected CWM Hazard
	Evaluation Pending

Tables 11-19 were not generated because there is no known or suspected CWM hazard at the MRS.

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 21**HHE Module: Groundwater Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value		CHF VALUE	NA
Migratory Pathway Factor			
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Receptor Factor			
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).		H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).		M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

No groundwater samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 22**HHE Module: Surface Water - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to surface water to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

No surface water samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

--

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 23**HHE Module: Sediment - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move		M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

 No sediment samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 24**HHE Module: Surface Water - Ecological Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA

Migratory Pathway Factor

Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).	L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Receptor Factor

Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Alternative Module Ratings

Prioritization No Longer Required

No Known or Suspected Hazard

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

No surface water samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 25**HHE Module: Sediment - Ecological Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H
Potential	potential for receptors to have access to sediment to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF

Sample comments:

 No sediment samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 26

HHE Module: Soil - Data Element Worksheet

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
Lead	5217	400	13.0	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	13.0	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		M	
Migratory Pathway Factor				
Evident	Analytical data or observable evidence indicates that contamination in the soil is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the soil to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		M	
Receptor Factor				
Identified	Identified receptors to have access to soil to which contamination has moved or can move.		H	
Potential	Potential for receptors to have access to soil to which contamination has moved or can move.		M	
Limited	Little or no potential for receptors to have access to soil to which contamination has moved or can move.		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		M	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Soil pathways are complete.

Rationale for Selection of RF:

Soil pathways are complete.

Sample comments:

54 soil samples were collected at the MRA. Lead concentrations ranged from 22.1 mg/kg to 5217 mg/kg. 8 samples exceeded the USEPA Residential Screening Level for lead of 400 mg/kg. 16 samples exceeded the modified action level for lead of 261 mg/kg.

CSE Report Reference (Section, Page #):

5.2.7

Installation: Hancock**MAJCOM:** ANG**MRAID:** SASIB**MRS:** SR001**FFID:****Table 27****Determining the HHE Module Rating**

Media Source	Contaminant Hazard Factor	Migratory Pathway Factor Value	Receptor Factor Value		3-Letter Ratings (Hs-Ms-Ls)		Media Rating (A-G)
Groundwater (Table 21)	NA	NA	NA		NA		NA
Surface Water/Human Endpoint (Table 22)	NA	NA	NA		NA		NA
Sediment/Human Endpoint (Table 23)	NA	NA	NA		NA		NA
Surface Water/Ecological Endpoint (Table 24)	NA	NA	NA		NA		NA
Sediment/Ecological Endpoint (Table 25)	NA	NA	NA		NA		NA
Soil (Table 26)	M	M	M		MMM		D

HHE Ratings (for reference only)

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected MC Hazard
	Evaluation Pending
HHE Module Ratings	D

Installation: Hancock

MAJCOM: ANG

MRAID: SASIB

MRS: SR001

FFID:

Table 28

MRS Priority

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Prioritization No Longer Required		Prioritization No Longer Required		Prioritization No Longer Required	
No Known or Suspected Hazard		No Known or Suspected Hazard		No Known or Suspected Hazard	
Evaluation Pending		Evaluation Pending		Evaluation Pending	
MRS Priority				5	

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table A

MRS Background Information

Munitions Response Site Name: Firing-In Buttress

Component: Air Force

Installation/Property Name: Hancock

Location (City, County, State): Syracuse, Onondaga, NY

Site Name/Project name (Project No.): Firing-In Buttress

Date Information Entered/Updated: 11/9/2011 10:00:46 AM

Point of Contact Name: Brent Lynch

Point of Contact Phone: (315) 233-2111

Project Phase (check only one):

☐ PA	☒ SI	☐ RI	☐ FS	☐ RD
☐ RA	☐ RIP	☐ RC		

Media Evaluated (check all that apply):

☐ Groundwater	☐ Sediment (human receptor)
☒ Surface soil	☐ Surface Water (ecological receptor)
☐ Sediment (ecological receptor)	☐ Surface Water (human receptor)

MRS Summary:

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

The Firing-In Butt is located in the eastern portion of Tract III, south of the northwest-southeast runway. The original MRA was 5.8 acres. The MRA was split based on the modified action level for lead of 261 mg/kg. The new updated acreage for SR002 is 0.1 acres. The area contains dense vegetation.

Description of Pathways for Human and Ecological Receptors:

Lead was detected at this site, soil exposure pathways are considered complete for MC.

No surface water or sediment sampling was conducted.

Surface water and sediment are incomplete pathways for MC.

Description of Receptors (Human and Ecological):

Human receptors include current and future authorized site personnel, contractors, and trespassers. Potential future receptors could also include residential and commercial/industrial workers.

Ecological receptors (plant and animal) exists near and within the Hancock Field ANGB boundaries. Based on the results of the focused SLERA, lead was at concentrations orders of magnitude above the ecological risk screening criterion intended to be protective of soil invertebrates, plants and wildlife. Receptor-specific soil screening levels were also exceeded for plants, herbivorous and insectivorous birds and insectivorous and carnivorous mammals.

Human and ecological receptors at the Firing-In Buttress (SR002) may come in contact with shallow, unconfined groundwater that is released to surface water at the creek

CSE Report Reference (Section, Page #):

GENERAL - 5.3.7/8.2.1.2/8.2.2.2/8.2.3.2/9.5.3/10.3.2.2, LOCATION - 2.1/5.3, POC - 1.3, CONTRACTOR - 1.3

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 1
EHE Module: Munitions Type Data Element Worksheet

Classification	Description	Score
Sensitive	- All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high explosive (HE) grenades, white phosphorus (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions]. - All hand grenades containing energetic filler. - Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	- All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." - All DMM containing a high-explosive filler that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	25
Pyrotechnic (used or damaged)	- All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). - All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	20
High explosive (unused)	- All DMM containing a high explosive filler that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	15
Propellant	- All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). - All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: - Damaged by burning or detonation - Deteriorated to the point of instability.	15
Bulk secondary high explosives, pyrotechnics, or propellant	- All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated. - Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10
Pyrotechnic (not used or damaged)	- All DMM containing a pyrotechnic fillers (i.e., red phosphorous), other than white phosphorous filler, that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	10
Practice	- All UXO that are practice munitions that are not associated with a sensitive fuze. - All DMM that are practice munitions that are not associated with a sensitive fuze and that have not: - Been damaged by burning or detonation - Deteriorated to the point of instability.	5
Riot control	- All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3
Small arms	- All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets) were used or are present on the MRS is required for selection of this category.].	2
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
MUNITIONS TYPE	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 30).	30

Site-specific data used in selection MUNITIONS TYPE classification:

small arms and munitions debris. 3.5 inch HEAT Rocket found during CSE Phase I. One spacer for a 3.5 inch HEAT Rocket and 20mm TP debris also found during CSE Phase II.

CSE Report Reference (Section, Page #): 5.3.7

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 2

EHE Module: Source of Hazard Data Element Worksheet

Classification	Description	Score
Former Range	- The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10
Former Munitions treatment (i.e., OB/OD unit)	- The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	- The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	- The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	- The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	- The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	- The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	- The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	- The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	- The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0
Source of Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	10

Site-specific data characteristics used to select the SOURCE OF HAZARD classification:

small arms and munitions debris. 3.5 inch HEAT Rocket found during CSE Phase I. One spacer for a 3.5 inch HEAT Rocket and 20mm TP debris also found during CSE Phase II.

CSE Report Reference (Section, Page #): 5.3.7

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 3

EHE Module: Information on the Location of Munitions Data Element Worksheet

Classification	Description	Score
Confirmed surface	- Physical evidence indicates that there are UXO or DMM on the surface of the MRS - Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	- There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	- There is historical evidence indicating that UXO or DMM may be present at the MRS.	5
Subsurface, physical constraint	- There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2
Small arms range (regardless of location)	- The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
Location of Munitions	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 25).	10

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

Small arms and munitions debris located near revetment structure/ impact berm. One spacer for a 3.5 inch HEAT Rocket and 20mm TP debris also found during CSE Phase II.

CSE Report Reference (Section, Page #): 5.3.7

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 4

EHE Module: Ease of Access Data Element Worksheet

Classification	Description	Score
No barrier	- There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	- There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	- There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	- There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0
Ease of Access	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	0

Site-specific characteristics used to select the EASE OF ACCESS classification:

CSE Report Reference (Section, Page #): 5.3/ 5.3.6.1/5.3.6.2/U.S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 5

EHE Module: Status of Property Data Element Worksheet

Classification	Description	Score
Non-DoD control	- The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0
Status of Property	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the EASE OF ACCESS classification:

CSE Report Reference (Section, Page #): 5.3.7

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 6

EHE Module: Population Density Data Element Worksheet

Classification	Description	Score
> 500 persons per square mile	- There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100- 500 persons per square mile	- There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	- There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1
Population Density	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics that helped select the POPULATION DENSITY classification

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/ 5.3.6.1/5.3.6.2/U.S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 7

EHE Module: Population Near Hazard Data Element Worksheet

Classification	Description	Score
26 or more inhabited structures	- There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25 inhabited structures	- There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15 inhabited structures	- There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10 inhabited structures	- There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5 inhabited structures	- There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0 inhabited structures	- There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Population Near Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the POPULATION NEAR HAZARD classification:

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/ 5.3.6.1/5.3.6.2/U.S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 8

EHE Module: Types of Activities/Structures Data Element Worksheet

Classification	Description	Score
Residential, educational, or subsistence	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	- There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1
Types of Activities/Structures	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/ 5.3.6.1/5.3.6.2/U.S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Worksheet

Classification	Description	Score
Ecological and cultural resources present	- There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	- There are ecological resources present on the MRS.	3
Cultural resources present	- There are cultural resources present on the MRS.	3
No ecological or cultural resources present	- There are no ecological resources or cultural resources present on the MRS.	0
Ecological and/or Cultural Resources	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the ECOLOGICAL AND/OR CULTURAL RESOURCES classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/ 5.3.6.1/5.3.6.2/U.S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 10

Determining the EHE Module Rating

Source		Score
Explosive Hazard Factor Data Elements		
Munitions Type	Table 1	30
Source of Hazard	Table 2	10
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 3	10
Ease of Access	Table 4	0
Status of Property	Table 5	0
Receptors Factor Data Elements		
Population Density	Table 6	5
Population Near Hazard	Table 7	5
Types of Activities/Structures	Table 8	5
Ecological and/or Cultural Resources	Table 9	0
Sum		65

EHE Module Value	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected Explosive Hazard
	Evaluation Pending

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 20

Determining the CHE Module Rating

Source		Score
CWM Hazard Factor Data Elements		
CWM Configuration	Table 11	N/A
Source of CWM	Table 12	N/A
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 13	N/A
Ease of Access	Table 14	N/A
Status of Property	Table 15	N/A
Receptors Factor Data Elements		
Population Density	Table 16	N/A
Population Near Hazard	Table 17	N/A
Types of Activities/Structures	Table 18	N/A
Ecological and/or Cultural Resources	Table 19	N/A
Sum		N/A

CHE Module Value	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected CWM Hazard
	Evaluation Pending

Tables 11-19 were not generated because there is no known or suspected CWM hazard at the MRS.

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 21**HHE Module: Groundwater Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value		CHF VALUE	NA
Migratory Pathway Factor			
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Receptor Factor			
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).		H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).		M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

No groundwater samples were collected during CSE Phase II field activities.

CSE Report Reference (Section, Page #):

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Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 22**HHE Module: Surface Water - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to surface water to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation because there was no surface water or sediment present within the MRS.

CSE Report Reference (Section, Page #):

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Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 23**HHE Module: Sediment - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		NA	
<u>Migratory Pathway Factor</u>				
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
<u>Receptor Factor</u>				
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H	
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move		M	
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

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Rationale for Selection of RF:

--

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation because there was no surface water or sediment present within the MRS.

CSE Report Reference (Section, Page #):

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Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 24

HHE Module: Surface Water - Ecological Data Element Worksheet

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA

Migratory Pathway Factor

Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).	L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Receptor Factor

Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).	NA

Alternative Module Ratings

Prioritization No Longer Required

No Known or Suspected Hazard

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation because there was no surface water or sediment present within the MRS.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 25**HHE Module: Sediment - Ecological Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		NA	
<u>Migratory Pathway Factor</u>				
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
<u>Receptor Factor</u>				
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H	
Potential	potential for receptors to have access to sediment to which contamination has moved or can move.		M	
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Rationale for Selection of RF

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation because there was no surface water or sediment present within the MRS.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 26

HHE Module: Soil - Data Element Worksheet

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
Lead	585	400	1.5	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	1.5	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		L	
Migratory Pathway Factor				
Evident	Analytical data or observable evidence indicates that contamination in the soil is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the soil to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		L	
Receptor Factor				
Identified	Identified receptors to have access to soil to which contamination has moved or can move.		H	
Potential	Potential for receptors to have access to soil to which contamination has moved or can move.		M	
Limited	Little or no potential for receptors to have access to soil to which contamination has moved or can move.		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		L	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Lead was detected at this site, soil exposure pathways are considered complete.Given the presence of a small creek running through the site, surface water and sediment are a potentially complete exposure pathway for MC.

Rationale for Selection of RF:

Lead was detected at this site, soil exposure pathways are considered complete.Given the presence of a small creek running through the site, surface water and sediment are a potentially complete exposure pathway for MC.

Sample comments:

26 soil samples were collected at the MRA. Lead results ranged from < LOD to 585 mg/kg.2 samples exceeded the USEPA Residential Screening Level for lead of 400 mg/kg.3 samples exceeded the modified action level for lead of 261 mg/kg.

CSE Report Reference (Section, Page #):

5.3.7/8.2.1.2/8.2.2/8.2.3.2/9.5.3/10.3.2.2

Installation: Hancock**MAJCOM:** ANG**MRAID:** FIB**MRS:** SR002**FFID:****Table 27****Determining the HHE Module Rating**

Media Source	Contaminant Hazard Factor	Migratory Pathway Factor Value	Receptor Factor Value		3-Letter Ratings (Hs-Ms-Ls)		Media Rating (A-G)
Groundwater (Table 21)	NA	NA	NA		NA		NA
Surface Water/Human Endpoint (Table 22)	NA	NA	NA		NA		NA
Sediment/Human Endpoint (Table 23)	NA	NA	NA		NA		NA
Surface Water/Ecological Endpoint (Table 24)	NA	NA	NA		NA		NA
Sediment/Ecological Endpoint (Table 25)	NA	NA	NA		NA		NA
Soil (Table 26)	L	L	L		LLL		G

HHE Ratings (for reference only)

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected MC Hazard
	Evaluation Pending
HHE Module Ratings	G

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002

FFID:

Table 28

MRS Priority

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Prioritization No Longer Required		Prioritization No Longer Required		Prioritization No Longer Required	
No Known or Suspected Hazard		No Known or Suspected Hazard		No Known or Suspected Hazard	
Evaluation Pending		Evaluation Pending		Evaluation Pending	
MRS Priority				5	

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table A

MRS Background Information

Munitions Response Site Name: Firing-In Buttress

Component: Air Force

Installation/Property Name: Hancock

Location (City, County, State): Syracuse, Onondaga, NY

Site Name/Project name (Project No.): Firing-In Buttress

Date Information Entered/Updated: 11/9/2011 10:01:02 AM

Point of Contact Name: Brent Lynch

Point of Contact Phone: (315) 233-2111

Project Phase (check only one):

☐ PA	☒ SI	☐ RI	☐ FS	☐ RD
☐ RA	☐ RIP	☐ RC		

Media Evaluated (check all that apply):

☐ Groundwater	☐ Sediment (human receptor)
☒ Surface soil	☐ Surface Water (ecological receptor)
☐ Sediment (ecological receptor)	☐ Surface Water (human receptor)

MRS Summary:

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

The Firing-In Butt is located in the eastern portion of Tract III, south of the northwest-southeast runway. The original MRA was 5.8 acres. The MRA was split based on the modified action level for lead of 261 mg/kg. The new updated acreage for SR002a is 5.7 acres. SR002a is recommended for NFA. The area contains dense vegetation.

Description of Pathways for Human and Ecological Receptors:

Lead was detected at this site, soil exposure pathways are considered complete.

There is a small creek running through the site. The Phase II soil sampling results do not suggest that surface water and sediments in the north branch of Ley Creek have received contamination, because the lone sampling location exceeding human health screening criteria is located approximately 250 to 300 ft from the creek, and all soil samples collected adjacent to the creek contained lead concentrations less than the 95th percentile background concentration. Surface water and sediment are an incomplete pathway for MC.

Shallow, unconfined groundwater is released to surface water at the creek. Groundwater pathways are potentially complete.

Description of Receptors (Human and Ecological):

Human receptors include current and future authorized site personnel, contractors, and trespassers. Potential future receptors could also include residential and commercial/industrial workers.

Ecological receptors (plant and animal) exists near and within the Hancock Field ANGB boundaries. Based on the results of the focused SLERA, lead was at concentrations orders of magnitude above the ecological risk screening criterion intended to be protective of soil invertebrates, plants and wildlife. Receptor-specific soil screening levels were also exceeded for plants, herbivorous and insectivorous birds and insectivorous and carnivorous mammals.

CSE Report Reference (Section, Page #):

GENERAL - 5.3.7/8.2.1.2/8.2.2.2/8.2.3.2/9.5.3/10.3.2.2, LOCATION - 2.1/5.3, POC - 1.3, CONTRACTOR - 1.3

Installation: Hancock**MAJCOM:** ANG**MRAID:** FIB**MRS:** SR002a**FFID:****Table 1****EHE Module: Munitions Type Data Element Worksheet**

Classification	Description	Score
Sensitive	- All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high explosive (HE) grenades, white phosphorus (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions]. - All hand grenades containing energetic filler. - Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	- All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." - All DMM containing a high-explosive filler that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	25
Pyrotechnic (used or damaged)	- All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). - All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	20
High explosive (unused)	- All DMM containing a high explosive filler that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	15
Propellant	- All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). - All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: - Damaged by burning or detonation - Deteriorated to the point of instability.	15
Bulk secondary high explosives, pyrotechnics, or propellant	- All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated. - Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10
Pyrotechnic (not used or damaged)	- All DMM containing a pyrotechnic fillers (i.e., red phosphorous), other than white phosphorous filler, that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	10
Practice	- All UXO that are practice munitions that are not associated with a sensitive fuze. - All DMM that are practice munitions that are not associated with a sensitive fuze and that have not: - Been damaged by burning or detonation - Deteriorated to the point of instability.	5
Riot control	- All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3
Small arms	- All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets) were used or are present on the MRS is required for selection of this category.].	2
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
MUNITIONS TYPE	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 30).	2

Site-specific data used in selection MUNITIONS TYPE classification:

small arms debris**CSE Report Reference (Section, Page #):**

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 2

EHE Module: Source of Hazard Data Element Worksheet

Classification	Description	Score
Former Range	- The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10
Former Munitions treatment (i.e., OB/OD unit)	- The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	- The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	- The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	- The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	- The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	- The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	- The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	- The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	- The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0
Source of Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	1

Site-specific data characteristics used to select the SOURCE OF HAZARD classification:

small arms debris

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 3

EHE Module: Information on the Location of Munitions Data Element Worksheet

Classification	Description	Score
Confirmed surface	- Physical evidence indicates that there are UXO or DMM on the surface of the MRS - Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	- Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. - Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	- There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	- There is historical evidence indicating that UXO or DMM may be present at the MRS.	5
Subsurface, physical constraint	- There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2
Small arms range (regardless of location)	- The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.].	1
Evidence of no munitions	- Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0
Location of Munitions	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 25).	1

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

small arms debris located near Ley Creek

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 4

EHE Module: Ease of Access Data Element Worksheet

Classification	Description	Score
No barrier	- There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	- There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	- There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	- There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0
Ease of Access	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 10).	0

Site-specific characteristics used to select the EASE OF ACCESS classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/5.3.6.1/5.3.6.2/ U. S. Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 5

EHE Module: Status of Property Data Element Worksheet

Classification	Description	Score
Non-DoD control	- The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	- The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0
Status of Property	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the EASE OF ACCESS classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

he Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 6

EHE Module: Population Density Data Element Worksheet

Classification	Description	Score
> 500 persons per square mile	- There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100- 500 persons per square mile	- There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	- There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1
Population Density	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific characteristics that helped select the POPULATION DENSITY classification

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/5.3.6.1/5.3.6.2/ U. S Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 7

EHE Module: Population Near Hazard Data Element Worksheet

Classification	Description	Score
26 or more inhabited structures	- There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25 inhabited structures	- There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15 inhabited structures	- There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10 inhabited structures	- There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5 inhabited structures	- There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0 inhabited structures	- There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Population Near Hazard	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the POPULATION NEAR HAZARD classification:

Hancock Field is located at the Syracuse hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

he Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/5.3.6.1/5.3.6.2/ U. S. Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 8

EHE Module: Types of Activities/Structures Data Element Worksheet

Classification	Description	Score
Residential, educational, or subsistence	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	- Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	- There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1
Types of Activities/Structures	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	5

Site-specific data characteristics used to select the LOCATION OF MUNITIONS classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/5.3.6.1/5.3.6.2/ U. S. Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Worksheet

Classification	Description	Score
Ecological and cultural resources present	- There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	- There are ecological resources present on the MRS.	3
Cultural resources present	- There are cultural resources present on the MRS.	3
No ecological or cultural resources present	- There are no ecological resources or cultural resources present on the MRS.	0
Ecological and/or Cultural Resources	DIRECTIONS: Record the single highest score from above in the box to the right (maximum score = 5).	0

Site-specific characteristics used to select the ECOLOGICAL AND/OR CULTURAL RESOURCES classification:

Hancock Field is located at the Syracuse Hancock International Airport. It is located approximately five miles north of the City of Syracuse, in Onondaga County. According to the U.S Census, there are approximately 579 persons per square mile in Onondaga County (U.S. Census, 2010).

The Firing-in Buttress structure is intact but there are no other buildings in the MRA. This area is located in an undeveloped area of Hancock Field ANGB. Within a two mile radius of this MRA there are over 26 inhabited buildings, including an educational facility, a church, a hospital, commercial buildings, and parks.

CSE Report Reference (Section, Page #): 5.3/5.3.6.1/5.3.6.2/ U. S. Census Bureau

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 10

Determining the EHE Module Rating

Source		Score
Explosive Hazard Factor Data Elements		
Munitions Type	Table 1	2
Source of Hazard	Table 2	1
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 3	1
Ease of Access	Table 4	0
Status of Property	Table 5	0
Receptors Factor Data Elements		
Population Density	Table 6	5
Population Near Hazard	Table 7	5
Types of Activities/Structures	Table 8	5
Ecological and/or Cultural Resources	Table 9	0
Sum		19

EHE Module Value	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected Explosive Hazard
	Evaluation Pending

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 20

Determining the CHE Module Rating

Source		Score
CWM Hazard Factor Data Elements		
CWM Configuration	Table 11	N/A
Source of CWM	Table 12	N/A
Accessibility Factor Data Elements		
Information on Location of Munitions	Table 13	N/A
Ease of Access	Table 14	N/A
Status of Property	Table 15	N/A
Receptors Factor Data Elements		
Population Density	Table 16	N/A
Population Near Hazard	Table 17	N/A
Types of Activities/Structures	Table 18	N/A
Ecological and/or Cultural Resources	Table 19	N/A
Sum		N/A

CHE Module Value	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected CWM Hazard
	Evaluation Pending

Tables 11-19 were not generated because there is no known or suspected CWM hazard at the MRS.

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 21**HHE Module: Groundwater Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
Migratory Pathway Factor			
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Receptor Factor			
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).		H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).		M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

No groundwater samples collected during the CSE Phase II.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 22**HHE Module: Surface Water - Human Endpoint Data Element Worksheet**

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors to have access to surface water to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

--

Rationale for Selection of RF:

--

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation pending outcome of the Phase II CSE soil sampling, as described in Section 4 of the work plan. The Phase II soil sampling results do not suggest that surface water and sediments in the north branch of Ley Creek have received contamination, because the lone sampling location exceeding human health screening criteria is located approximately 250 to 300 ft from the creek, and all soil samples collected adjacent to the creek contained lead concentrations less than the 95th percentile background concentration.

CSE Report Reference (Section, Page #):

--

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 23

HHE Module: Sediment - Human Endpoint Data Element Worksheet

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		NA	
Migratory Pathway Factor				
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Receptor Factor				
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H	
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move		M	
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation pending outcome of the Phase II CSE soil sampling, as described in Section 4 of the work plan. The Phase II soil sampling results do not suggest that surface water and sediments in the north branch of Ley Creek have received contamination, because the lone sampling location exceeding human health screening criteria is located approximately 250 to 300 ft from the creek, and all soil samples collected adjacent to the creek contained lead concentrations less than the 95th percentile background concentration.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 24

HHE Module: Surface Water - Ecological Data Element Worksheet

Contaminant	Maximum Concentration (ug/L)	Comparison Value (ug/L)	Ratios
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
100 > CHF > 2	M (Medium)		
2 > CHF	L (Low)		
CHF Value	CHF VALUE		NA
<u>Migratory Pathway Factor</u>			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.		H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to geological structures or physical controls).		L
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA
<u>Receptor Factor</u>			
Identified	Identified receptors have access to surface water to which contamination has moved or can move.		H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.		M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.		L
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA
Alternative Module Ratings		Prioritization No Longer Required	
		No Known or Suspected Hazard	

Rationale for Selection of MPF:

Rationale for Selection of RF:

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation pending outcome of the Phase II CSE soil sampling, as described in Section 4 of the work plan. The Phase II soil sampling results do not suggest that surface water and sediments in the north branch of Ley Creek have received contamination, because the lone sampling location exceeding human health screening criteria is located approximately 250 to 300 ft from the creek, and all soil samples collected adjacent to the creek contained lead concentrations less than the 95th percentile background concentration.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Worksheet

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	No Data	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		NA	
Migratory Pathway Factor				
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Receptor Factor				
Identified	Identified receptors to have access to sediment to which contamination has moved or can move.		H	
Potential	potential for receptors to have access to sediment to which contamination has moved or can move.		M	
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		NA	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Rationale for Selection of RF

Sample comments:

Surface water and sediment samples were not collected during the Phase II CSE investigation pending outcome of the Phase II CSE soil sampling, as described in Section 4 of the work plan. The Phase II soil sampling results do not suggest that surface water and sediments in the north branch of Ley Creek have received contamination, because the lone sampling location exceeding human health screening criteria is located approximately 250 to 300 ft from the creek, and all soil samples collected adjacent to the creek contained lead concentrations less than the 95th percentile background concentration.

CSE Report Reference (Section, Page #):

Installation: Hancock

MAJCOM: ANG

MRAID: FIB

MRS: SR002a

FFID:

Table 26

HHE Module: Soil - Data Element Worksheet

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
Lead	27	400	0.1	
CHF Scale	CHF Value	Contamination Hazard Factor (CHF)	0.1	
CHF > 100	H (High)	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$		
100 > CHF > 2	M (Medium)			
2 > CHF	L (Low)			
CHF Value	CHF VALUE		L	
Migratory Pathway Factor				
Evident	Analytical data or observable evidence indicates that contamination in the soil is present at, moving toward, or has moved to a point of exposure.		H	
Potential	Contamination in soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		M	
Confined	Information indicates a low potential for contaminant migration from the source via the soil to a potential point of exposure (possibly due to geological structures or physical controls).		L	
Migratory Pathway Factor	The single highest value from above in the box to the right (maximum value = H).		L	
Receptor Factor				
Identified	Identified receptors to have access to soil to which contamination has moved or can move.		H	
Potential	Potential for receptors to have access to soil to which contamination has moved or can move.		M	
Limited	Little or no potential for receptors to have access to soil to which contamination has moved or can move.		L	
Receptor Factor	The single highest value from above in the box to the right (maximum value = H).		L	
Alternative Module Ratings		Prioritization No Longer Required		
		No Known or Suspected Hazard		

Rationale for Selection of MPF:

Lead was detected at this site, soil exposure pathways are considered complete.

Rationale for Selection of RF:

Lead was detected at this site, soil exposure pathways are considered complete.

Sample comments:

All samples were below the USEPA Residential Screening Level for lead of 400mg/ kg.

All samples were also below the modified action level for lead of 261 mg/kg.

CSE Report Reference (Section, Page #):

5.3.7/8.2.1.2

Installation: Hancock**MAJCOM:** ANG**MRAID:** FIB**MRS:** SR002a**FFID:****Table 27****Determining the HHE Module Rating**

Media Source	Contaminant Hazard Factor	Migratory Pathway Factor Value	Receptor Factor Value		3-Letter Ratings (Hs-Ms-Ls)		Media Rating (A-G)
Groundwater (Table 21)	NA	NA	NA		NA		NA
Surface Water/Human Endpoint (Table 22)	NA	NA	NA		NA		NA
Sediment/Human Endpoint (Table 23)	NA	NA	NA		NA		NA
Surface Water/Ecological Endpoint (Table 24)	NA	NA	NA		NA		NA
Sediment/Ecological Endpoint (Table 25)	NA	NA	NA		NA		NA
Soil (Table 26)	L	L	L		LLL		G

HHE Ratings (for reference only)

Combination	Rating
HHH	A
HHM	B
HHL HMM	C
HML MMM	D
HLL MML	E
MLL	F
LLL	G
Alternative Module Ratings	Prioritization No Longer Required
	No Known or Suspected MC Hazard
	Evaluation Pending
HHE Module Ratings	G

Installation: Hancock	MRAID: FIB	MRS: SR002a
MAJCOM: ANG		
FFID:		

Table 28

MRS Priority

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Prioritization No Longer Required		Prioritization No Longer Required		Prioritization No Longer Required	
No Known or Suspected Hazard		No Known or Suspected Hazard		No Known or Suspected Hazard	
Evaluation Pending		Evaluation Pending		Evaluation Pending	
MRS Priority				8	

Appendix J

RACER Worksheets

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COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

City: Syracuse

State: NY

County: Onondaga

Site Name: Small Arms and Shooting-In Buttress

SITE DIMENSIONS:

Acreage: 1.9

Length (Feet): 135

Width (Feet): 250

Perimeter (Feet): 760

SITE DIMENSIONS REFERENCES:

Section, Page #: 5.2

CONTAMINANTS OF CONCERN:

- | | |
|---|--|
| ☐ Acids/caustics | ☐ Ordnance (not residual) |
| ☐ Asbestos | ☐ Ordnance (residual) |
| ☐ Fuels | ☐ Pesticides |
| ☐ SVOCs | ☒ Metals |
| ☐ VOCs | ☐ Low Level Radioactive |
| ☐ PCBs | ☐ Other* |

*Description of other:

CONTAMINANTS OF CONCERN REFERENCES:

Section:

5.2.2/5.2.7

Page:

RANGE TYPES:

- | | |
|--|--|
| ☐ Air to Air | ☐ OB/OD |
| ☐ Air to Ground | ☐ Mortar |
| ☐ Artillery | ☐ Multiple/combined Use |
| ☐ Bombing | ☐ Rifle Grenade, Anti-tank Rocket |
| ☐ Burial Pits | |
| ☐ Guided Missiles | ☒ Small Arm |
| ☐ Hand Grenade | ☐ Other |

*Description of other:

RANGE TYPES REFERENCES:

Section:

5.2

Page:

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

ORDNANCE TYPES:

- | | |
|--|---|
| ☐ Bombs, high explosive | ☐ Mortars |
| ☐ Bombs (WP, Incendiary, Photoflash) | ☐ Aerial Rockets (Live) |
| ☐ Bombs, Practice | ☐ Aerial Rockets, Practice |
| ☐ Hand Grenades, Live | ☐ Guided missile |
| ☐ Hand Grenades, Practice | ☐ Pyrotechnics |
| ☐ Ground Rockets, Rifle Grenades, Live | ☒ Small Arms |
| ☒ Ground Rockets, Rifle Grenades, Practice | ☐ Landmines |
| ☐ Medium Caliber (20mm, 25mm, 30mm) | ☐ Demolition Materials |
| ☐ Large Caliber (37mm and larger) | ☐ Other* |

*Description of other:

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.2.7

ANOMALY DENSITY:

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

AREA OF CONTAMINATION:

Depth to base of contamination (feet):

Depth to groundwater contamination (feet):

Depth to water table (feet): 3

AREA OF CONTAMINATION REFERENCES:

Section, Page #: 5.2.1

TYPE OF AQUIFER:

UNCONFINED

SOIL TYPE:

Sand-Silt Mixture/Sand-Clay Mixture

TOPOGRAPHY:

Flat

VEGETATION TYPE:

Heavy shrubs with trees

AQUIFER, SOIL, TOPOGRAPHY, VEGETATION INFORMATION REFERENCES:

Section, Page #: 3.4/3.5

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

IMPACTED MEDIA:

- | | |
|--|--|
| ☒ Surface soil | ☐ Surface water |
| ☒ Subsurface | ☐ Sediments |
| ☐ Groundwater | |

IMPACTED MEDIA REFERENCES:

Section, Page #: 5.2.7/13.5.1/14.1

TYPICAL SAFETY LEVEL USED AT THE SITE: D

SAFETY LEVEL REFERENCES:

Section, Page #: N/A

ADDITIONAL INFORMATION THAT MAY INFLUENCE COST:

ADDITIONAL INFORMATION REFERENCES:

Section, Page #: N/A

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

City: Syracuse

State: NY

County: Onondaga

Site Name: Small Arms Range and Shooting-In Buttress

SITE DIMENSIONS:

Acreage: 1.8

Length (Feet): 345

Width (Feet): 540

Perimeter (Feet): 1623

SITE DIMENSIONS REFERENCES:

Section, Page #: 5.2

CONTAMINANTS OF CONCERN:

- | | |
|---|--|
| ☐ Acids/caustics | ☐ Ordnance (not residual) |
| ☐ Asbestos | ☐ Ordnance (residual) |
| ☐ Fuels | ☐ Pesticides |
| ☐ SVOCs | ☐ Metals |
| ☐ VOCs | ☐ Low Level Radioactive |
| ☐ PCBs | ☒ Other* |

*Description of other: NFA

CONTAMINANTS OF CONCERN REFERENCES:

Section:

13.5.1/14.1

Page:

RANGE TYPES:

- | | |
|--|--|
| ☐ Air to Air | ☐ OB/OD |
| ☐ Air to Ground | ☐ Mortar |
| ☐ Artillery | ☐ Multiple/combined Use |
| ☐ Bombing | ☐ Rifle Grenade, Anti-tank Rocket |
| ☐ Burial Pits | |
| ☐ Guided Missiles | ☒ Small Arm |
| ☐ Hand Grenade | ☒ Other |

*Description of other: NFA

RANGE TYPES REFERENCES:

Section:

5.2

Page:

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

ORDNANCE TYPES:

- | | |
|--|---|
| ☐ Bombs, high explosive | ☐ Mortars |
| ☐ Bombs (WP, Incendiary, Photoflash) | ☐ Aerial Rockets (Live) |
| ☐ Bombs, Practice | ☐ Aerial Rockets, Practice |
| ☐ Hand Grenades, Live | ☐ Guided missile |
| ☐ Hand Grenades, Practice | ☐ Pyrotechnics |
| ☐ Ground Rockets, Rifle Grenades, Live | ☒ Small Arms |
| ☒ Ground Rockets, Rifle Grenades, Practice | ☐ Landmines |
| ☐ Medium Caliber (20mm, 25mm, 30mm) | ☐ Demolition Materials |
| ☐ Large Caliber (37mm and larger) | ☒ Other* |

*Description of other: see additional information at OTHER tab, NFA

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.2.7

ANOMALY DENSITY:

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

AREA OF CONTAMINATION:

Depth to base of contamination (feet):

Depth to groundwater contamination (feet):

Depth to water table (feet): 3

AREA OF CONTAMINATION REFERENCES:

Section, Page #: 5.2.1

TYPE OF AQUIFER:

UNCONFINED

SOIL TYPE:

Sand-Silt Mixture/Sand-Clay Mixture

TOPOGRAPHY:

Flat

VEGETATION TYPE:

Heavy shrubs with trees

AQUIFER, SOIL, TOPOGRAPHY, VEGETATION INFORMATION REFERENCES:

Section, Page #: 3.4/3.5

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

IMPACTED MEDIA:

- | | |
|---------------------------------------|--|
| ☐ Surface soil | ☐ Surface water |
| ☐ Subsurface | ☐ Sediments |
| ☐ Groundwater | |

IMPACTED MEDIA REFERENCES:

Section, Page #: 13.5.1/14.1

TYPICAL SAFETY LEVEL USED AT THE SITE: D

SAFETY LEVEL REFERENCES:

Section, Page #: N/A

ADDITIONAL INFORMATION THAT MAY INFLUENCE COST:

Ordnance types found - 40 mm practice grenade and debris, 1 smoke canister and debris, and debris from an offensive riot control grenade were found during visual survey.

ADDITIONAL INFORMATION REFERENCES:

Section, Page #: N/A

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

City: Syracuse

State: NY

County: Onondaga

Site Name: Firing-In Buttress

SITE DIMENSIONS:

Acreage: 0.1

Length (Feet): 250

Width (Feet): 135

Perimeter (Feet): 760

SITE DIMENSIONS REFERENCES:

Section, Page #: 5.3

CONTAMINANTS OF CONCERN:

- | | |
|---|--|
| ☐ Acids/caustics | ☐ Ordnance (not residual) |
| ☐ Asbestos | ☐ Ordnance (residual) |
| ☐ Fuels | ☐ Pesticides |
| ☐ SVOCs | ☒ Metals |
| ☐ VOCs | ☐ Low Level Radioactive |
| ☐ PCBs | ☐ Other* |

*Description of other:

CONTAMINANTS OF CONCERN REFERENCES:

Section:

5.3.7

Page:

RANGE TYPES:

- | | |
|--|--|
| ☐ Air to Air | ☐ OB/OD |
| ☐ Air to Ground | ☐ Mortar |
| ☐ Artillery | ☐ Multiple/combined Use |
| ☐ Bombing | ☐ Rifle Grenade, Anti-tank Rocket |
| ☐ Burial Pits | |
| ☐ Guided Missiles | ☐ Small Arm |
| ☐ Hand Grenade | ☒ Other |

*Description of other: Firing-In Buttress/Bore-Sight Range

RANGE TYPES REFERENCES:

Section:

5.3.7

Page:

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

ORDNANCE TYPES:

- | | |
|--|---|
| ☐ Bombs, high explosive | ☐ Mortars |
| ☐ Bombs (WP, Incendiary, Photoflash) | ☐ Aerial Rockets (Live) |
| ☐ Bombs, Practice | ☐ Aerial Rockets, Practice |
| ☐ Hand Grenades, Live | ☐ Guided missile |
| ☐ Hand Grenades, Practice | ☐ Pyrotechnics |
| ☐ Ground Rockets, Rifle Grenades, Live | ☒ Small Arms |
| ☒ Ground Rockets, Rifle Grenades, Practice | ☐ Landmines |
| ☒ Medium Caliber (20mm, 25mm, 30mm) | ☐ Demolition Materials |
| ☐ Large Caliber (37mm and larger) | ☐ Other* |

*Description of other:

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.3.7

ANOMALY DENSITY:

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

AREA OF CONTAMINATION:

Depth to base of contamination (feet):

Depth to groundwater contamination (feet):

Depth to water table (feet): 3

AREA OF CONTAMINATION REFERENCES:

Section, Page #: 5.3

TYPE OF AQUIFER:

UNCONFINED

SOIL TYPE:

Sand-Silt Mixture/Sand-Clay Mixture

TOPOGRAPHY:

Flat

VEGETATION TYPE:

Heavy shrubs with trees

AQUIFER, SOIL, TOPOGRAPHY, VEGETATION INFORMATION REFERENCES:

Section, Page #: 3.4/3.5

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

IMPACTED MEDIA:

- | | |
|--|--|
| ☒ Surface soil | ☐ Surface water |
| ☒ Subsurface | ☐ Sediments |
| ☐ Groundwater | |

IMPACTED MEDIA REFERENCES:

Section, Page #: 5.3.7

TYPICAL SAFETY LEVEL USED AT THE SITE: D

SAFETY LEVEL REFERENCES:

Section, Page #: N/A

ADDITIONAL INFORMATION THAT MAY INFLUENCE COST:

ADDITIONAL INFORMATION REFERENCES:

Section, Page #: N/A

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

Installation: Hancock

City: Syracuse

State: NY

County: Onondaga

Site Name: Firing-In Buttress

SITE DIMENSIONS:

Acreage: 5.7

Length (Feet): 540

Width (Feet): 345

Perimeter (Feet): 1623

SITE DIMENSIONS REFERENCES:

Section, Page #: 5.3

CONTAMINANTS OF CONCERN:

- | | |
|---|--|
| ☐ Acids/caustics | ☐ Ordnance (not residual) |
| ☐ Asbestos | ☐ Ordnance (residual) |
| ☐ Fuels | ☐ Pesticides |
| ☐ SVOCs | ☐ Metals |
| ☐ VOCs | ☐ Low Level Radioactive |
| ☐ PCBs | ☒ Other* |

*Description of other: NFA

CONTAMINANTS OF CONCERN REFERENCES:

Section:

5.3.7

Page:

RANGE TYPES:

- | | |
|--|--|
| ☐ Air to Air | ☐ OB/OD |
| ☐ Air to Ground | ☐ Mortar |
| ☐ Artillery | ☐ Multiple/combined Use |
| ☐ Bombing | ☐ Rifle Grenade, Anti-tank Rocket |
| ☐ Burial Pits | |
| ☐ Guided Missiles | ☐ Small Arm |
| ☐ Hand Grenade | ☒ Other |

*Description of other: Firing-In Buttress/Bore-Sight Range, NFA

RANGE TYPES REFERENCES:

Section:

5.3

Page:

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

ORDNANCE TYPES:

- | | |
|---|---|
| ☐ Bombs, high explosive | ☐ Mortars |
| ☐ Bombs (WP, Incendiary, Photoflash) | ☐ Aerial Rockets (Live) |
| ☐ Bombs, Practice | ☐ Aerial Rockets, Practice |
| ☐ Hand Grenades, Live | ☐ Guided missile |
| ☐ Hand Grenades, Practice | ☐ Pyrotechnics |
| ☐ Ground Rockets, Rifle Grenades, Live | ☒ Small Arms |
| ☐ Ground Rockets, Rifle Grenades, Practice | ☐ Landmines |
| ☐ Medium Caliber (20mm, 25mm, 30mm) | ☐ Demolition Materials |
| ☐ Large Caliber (37mm and larger) | ☒ Other* |

*Description of other: NFA

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.3.7

ANOMALY DENSITY:

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

AREA OF CONTAMINATION:

Depth to base of contamination (feet):

Depth to groundwater contamination (feet):

Depth to water table (feet): 3

AREA OF CONTAMINATION REFERENCES:

Section, Page #: 5.3

TYPE OF AQUIFER:

UNCONFINED

SOIL TYPE:

Sand-Silt Mixture/Sand-Clay Mixture

TOPOGRAPHY:

Flat

VEGETATION TYPE:

Heavy shrubs with trees

AQUIFER, SOIL, TOPOGRAPHY, VEGETATION INFORMATION REFERENCES:

Section, Page #: 3.4/3.5

COMPREHENSIVE SITE EVALUATION: RACER DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

IMPACTED MEDIA:

- | | |
|---------------------------------------|--|
| ☐ Surface soil | ☐ Surface water |
| ☐ Subsurface | ☐ Sediments |
| ☐ Groundwater | |

IMPACTED MEDIA REFERENCES:

Section, Page #: 5.3.7/13.2/14.1

TYPICAL SAFETY LEVEL USED AT THE SITE: D

SAFETY LEVEL REFERENCES:

Section, Page #: N/A

ADDITIONAL INFORMATION THAT MAY INFLUENCE COST:

ADDITIONAL INFORMATION REFERENCES:

Section, Page #: N/A

Appendix K

EESOH-MIS Worksheets

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COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

City: Syracuse

State: NY

County: Onondaga

Site Name: Small Arms and Shooting-In Buttress

Site Description:

The Small Arms Range and Shooting-In Butt (SR001) is located in the south-central portion of Tract II. SR001 was originally 3.7 acres. The MRA was spilt based on the modified action level for lead of 261 mg/kg and presence of 40mm practice grenade debris. The new updated acreage for SR001 is 1.9 acres. The area consists of vacant land with remnants of small arms facilities.

GENERAL INFORMATION REFERENCES:

Section, Page #: 5.2.7/8.2.1.2/8.2.2.2/8.2.3.2/9.4.3/10.3.1.2

POINT OF CONTACT INFORMATION

Last Name: Lynch

Address: 4715 Hewes Avenue

First Name: Brent

City: Syracuse

Organization: Hancock Field ANGB

State: NY

Phone #: (315) 233-2111

Zip: 39507

Email: Brent.Lynch@ang.af.mil

POINT OF CONTACT REFERENCES:

Section, Page #: 1.3

LOCATION: City: Syracuse
State: NY
County: Onondaga

Latitude: 43.117838
Longitude: -76.08839

LOCATION REFERENCES:

Section, Page #: 2.1/5.2

AREA:

Acreage confirmed as containing UXO: 0

Total Acreage: 1.9

Acreage suspected or potentially containing UXO: 0

Acreage confirmed as NOT containing UXO: 0.6

AREA REFERENCES:

Section, Page #: 5.2

CLASSIFICATION:

☐ Testing

☒ Small Arms Range

☒ Training

☐ Skeet Range

☐ Treatment OBOD RCRA

☐ Waste Military Munitions

☐ Disposal RCRA

☐ Other*

☐ Buffer Area

CLASSIFICATION REFERENCES:

Section: 5.2

Page:

*Description of other: PAH

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

RANGE TYPES:

- ☐ Air to Air ☐ Air to land ☒ Land to land ☐ Other*
☐ Air to water ☐ Land to air ☐ Land to water

*Description of other:

RANGE/SITE TYPES REFERENCES:

Section, Page #: 5.2

ORDNANCE TYPES AND RELATED ANOMALY DENSITY:

Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density	Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density
Medium/Large Caliber (20 mm and larger) ☐	☐		Demolition charges ☐	☐	
Explosive grenades (hand or rifle) ☐	☐		Military dynamite ☐	☐	
Explosive landmine ☐	☐		Less sensitive explosives (Ammonium Nitrate, etc.) ☐	☐	
Explosive rockets ☐	☐		Solid or liquid propellants ☐	☐	
Guided Missiles ☐	☐		Toxic chem. agents (choking, nerve, blood, blister) ☐	☐	
Explosive detonators ☐	☐		War gas identification sets ☐	☐	
Blasting caps ☐	☐		Radiological ordnance (e.g., depleted Uranium) ☐	☐	
Practice grenades (with spotting charges) ☐	☐		Riot control agents (vomiting, tear) ☐	☐	
Practice landmines (with spotting charges) ☐	☐		Bombs (explosive) ☐	☐	
Small arms complete round (.22-.50 cal) ☐	☐		Bombs (practice) ☐	☐	
Small arms, expended ☒	☐	MEDIUM	Fuses, Boosters, Bursters ☐	☐	
Practice ordnance (without spotting charges) ☐	☐		Flares, signals, & simulators (other than white phos.) ☐	☐	
White phosphorous ☐	☐		Torpedoes/Sea Mines ☐	☐	
Incendiary material ☐	☐		Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.) ☐	☐	
Primary or initiating explosives ☐	☐				

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.2.2/5.2.7/12.6.1

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

GENERAL MEDIA:

Predominant Soil Type: Other

Predominant Topography: Flat

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

Predominant Vegetation: Heavy shrubs and trees

GENERAL MEDIA REFERENCES:

Section, Page #: 3.4

GROUNDWATER:

Potential for contamination of drinking water: UNKNOWN

Depth to Groundwater (feet): 3

Is the MRS located above a drinking water aquifer? NO

Sole source aquifer? No

GROUNDWATER REFERENCES:

Section, Page #: 3.5

ARCHAEOLOGICAL/ECOLOGICAL:

Threatened or endangered species present? ☐ Yes ☒ N

Archaeological or cultural sites present? ☐ Yes ☒ N

ARCHAEOLOGICAL/ECOLOGICAL REFERENCES:

Section: 5.2.8

WETLANDS:

Are there any wetland areas associated with this site? NO

If yes, please list acreage:

WETLANDS REFERENCES:

Section, Page #: 3.3

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

ENVIRONMENTAL RESPONSE:

Have environmental response activities been initiated/conducted on this MRS? ☐ Yes ☒ No

If yes, what is the scope of the response activities?

☐ Past practices

☐ Chemical contamination

☐ Current practices

☐ Ordnance and explosives, including UXO

If yes, what is the status of the response activities?

☐ Data collection

☐ Investigation

☐ Response/remedial action

☐ Monitoring

☐ Close out

☐ Operation and maintenance

If yes, is contamination monitoring (i.e., groundwater sampling and analysis) needed?

If yes, under what authority were/are response actions conducted?

ENVIRONMENTAL RESPONSE REFERENCES:

Section, Page #: N/A

UXO RESPONSE:

What types of UXO response actions have been initiated/conducted on the site?

☒ None

☐ Emergency response actions

☐ UXO response actions associated with ERP activities

☐ Unknown

☐ Routine range clearance/maintenance

☐ Non-time-critical removal actions with Engineering Evaluation/Cost Analysis

☐ Other*

☐ Time-critical removal actions

*Please specify other:

UXO RESPONSE REFERENCES:

Section: N/A

Page:

LAND USE RESTRICTIONS:

☐ No public access

☒ Unrestricted public access

☐ Limited public access

☐ Restricted public access

ACCESS CONTROLS:

☒ No controls

☐ Locked gates

☐ Access signs

☐ Log book

☐ Fencing

☐ Security patrol

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001

Installation: Hancock

TRANSFERRED OR TRANSFERRING RANGES:

For transferred and transferring ranges, what is the nature of the transfer?

Lease to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Ownership transfer to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Additional reasons:

- ☐ Lease termination
- ☐ Revocation of withdrawn land
- ☐ Other***

***Please specify:

LAND USE, ACCESS CONTROL, TRANSFERRED/TRANSFERRING RANGES REFERENCES:

Section, Page #: 5.2.3/5.2.4/5.2.5

LAND USE INTEREST:

- | | |
|--|--|
| ☒ DOD | ☐ Public sector |
| ☐ Federal agency | ☐ Tribal |
| ☒ State government | ☐ Other**** |
| ☐ Local government | |

****Please specify:

LAND USE INTEREST REFERENCES:

Section, Page #: 5.2.5

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

City: Syracuse

State: NY

County: Onondaga

Site Name: Small Arms Range and Shooting-In Buttress

Site Description:

The Small Arms Range and Shooting-In Butt is located in the south-central portion of Tract II. SR001 was originally 3.7 acres. The MRA was spilt based on the modified action level for lead of 261 mg/kg and the and presence of 40mm practice grenade debris. The new updated acreage for SR001a is 1.8 acres. SR001a is recommended for NFA.

The southern portion of the area extends beyond the Tract II boundary and onto land currently owned by the City of Syracuse. The majority of the site is situated in Tract II, which is part of installation property. The area consists of vacant land with remnants of small arms facilities.

GENERAL INFORMATION REFERENCES:

Section, Page #: 5.2.7/8.2.1.2/8.2.2.2/8.2.3.2/9.4.3/10.3.1.2

POINT OF CONTACT INFORMATION

Last Name: Lynch

Address: 4715 Hewes Avenue

First Name: Brent

City: Syracuse

Organization: Hancock Field ANGB

State: NY

Phone #: (315) 233-2111

Zip: 39507

Email: Brent.Lynch@ang.af.mil

POINT OF CONTACT REFERENCES:

Section, Page #: 1.3

LOCATION: City: Syracuse
State: NY
County: Onondaga

Latitude: 43.117838

Longitude: -76.08839

LOCATION REFERENCES:

Section, Page #: 2.1/5.2

AREA:

Acreage confirmed as containing UXO: 0

Total Acreage: 1.8

Acreage suspected or potentially containing UXO: 0

Acreage confirmed as NOT containing UXO: 1.8

AREA REFERENCES:

Section, Page #: 5.2

CLASSIFICATION:

CLASSIFICATION REFERENCES:

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

- | | |
|--|--|
| ☐ Testing | ☒ Small Arms Range |
| ☐ Training | ☐ Skeet Range |
| ☐ Treatment OBOD RCRA | ☐ Waste Military Munitions |
| ☐ Disposal RCRA | ☒ Other* |
| ☐ Buffer Area | |

Section: 5.2

Page:

*Description of other: NFA

RANGE TYPES:

- | | | | |
|---------------------------------------|--------------------------------------|--|--|
| ☐ Air to Air | ☐ Air to land | ☒ Land to land | ☒ Other* |
| ☐ Air to water | ☐ Land to air | ☐ Land to water | |

*Description of other: NFA

RANGE/SITE TYPES REFERENCES:

Section, Page #: 5.2

ORDNANCE TYPES AND RELATED ANOMALY DENSITY:

Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density	Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density
Medium/Large Caliber (20 mm and larger) ☐	☐		Demolition charges ☐	☐	
Explosive grenades (hand or rifle) ☐	☐		Military dynamite ☐	☐	
Explosive landmine ☐	☐		Less sensitive explosives (Ammonium Nitrate, etc.) ☐	☐	
Explosive rockets ☐	☐		Solid or liquid propellants ☐	☐	
Guided Missiles ☐	☐		Toxic chem. agents (choking, nerve, blood, blister) ☐	☐	
Explosive detonators ☐	☐		War gas identification sets ☐	☐	
Blasting caps ☐	☐		Radiological ordnance (e.g., depleted Uranium) ☐	☐	
Practice grenades (with spotting charges) ☐	☐		Riot control agents (vomiting, tear) ☐	☐	
Practice landmines (with spotting charges) ☐	☐		Bombs (explosive) ☐	☐	
Small arms complete round (.22-.50 cal) ☐	☐		Bombs (practice) ☐	☐	
Small arms, expended ☒	☐	LOW	Fuses, Boosters, Burstern ☐	☐	
Practice ordnance (without spotting charges) ☐	☐		Flares, signals, & simulators (other than white phos.) ☐	☐	
White phosphorous ☐	☐		Torpedoes/Sea Mines ☐	☐	
Incendiary material ☐	☐		Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.) ☐	☐	
Primary or initiating explosives ☐	☐				

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.2.2/5.2.7/12.6.1

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

GENERAL MEDIA:

Predominant Soil Type: Other

Predominant Topography: Flat

Predominant Vegetation: Heavy shrubs and trees

GENERAL MEDIA REFERENCES:

Section, Page #: 3.4

GROUNDWATER:

Potential for contamination of drinking water: UNKNOWN

Depth to Groundwater (feet): 3

Is the MRS located above a drinking water aquifer? NO

Sole source aquifer? No

GROUNDWATER REFERENCES:

Section, Page #: 3.5

ARCHAEOLOGICAL/ECOLOGICAL:

Threatened or endangered species present? ☐ Yes ☒ N

Archaeological or cultural sites present? ☐ Yes ☒ N

ARCHAEOLOGICAL/ECOLOGICAL REFERENCES:

Section: 5.2.8

WETLANDS:

Are there any wetland areas associated with this site? NO

If yes, please list acreage:

WETLANDS REFERENCES:

Section, Page #: 3.3

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

ENVIRONMENTAL RESPONSE:

Have environmental response activities been initiated/conducted on this MRS? ☐ Yes ☒ No

If yes, what is the scope of the response activities?

☐ Past practices

☐ Chemical contamination

☐ Current practices

☐ Ordnance and explosives, including UXO

If yes, what is the status of the response activities?

☐ Data collection

☐ Investigation

☐ Response/remedial action

☐ Monitoring

☐ Close out

☐ Operation and maintenance

If yes, is contamination monitoring (i.e., groundwater sampling and analysis) needed?

If yes, under what authority were/are response actions conducted?

ENVIRONMENTAL RESPONSE REFERENCES:

Section, Page #: N/A

UXO RESPONSE:

What types of UXO response actions have been initiated/conducted on the site?

☒ None

☐ Emergency response actions

☐ UXO response actions associated with ERP activities

☐ Unknown

☐ Routine range clearance/maintenance

☐ Non-time-critical removal actions with Engineering Evaluation/Cost Analysis

☐ Other*

☐ Time-critical removal actions

*Please specify other:

UXO RESPONSE REFERENCES:

Section: N/A

Page:

LAND USE RESTRICTIONS:

☐ No public access

☒ Unrestricted public access

☐ Limited public access

☐ Restricted public access

ACCESS CONTROLS:

☒ No controls

☐ Locked gates

☐ Access signs

☐ Log book

☐ Fencing

☐ Security patrol

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: SASIB

MRS: SR001a

Installation: HANCOCK

TRANSFERRED OR TRANSFERRING RANGES:

For transferred and transferring ranges, what is the nature of the transfer?

Lease to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Ownership transfer to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Additional reasons:

- ☐ Lease termination
- ☐ Revocation of withdrawn land
- ☐ Other***

***Please specify:

LAND USE, ACCESS CONTROL, TRANSFERRED/TRANSFERRING RANGES REFERENCES:

Section, Page #: 5.2.3/5.2.4/5.2.5

LAND USE INTEREST:

- | | |
|--|--|
| ☒ DOD | ☐ Public sector |
| ☐ Federal agency | ☐ Tribal |
| ☒ State government | ☐ Other**** |
| ☒ Local government | |

****Please specify:

LAND USE INTEREST REFERENCES:

Section, Page #: 5.2.3/5.2.4/5.2.5

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

City: Syracuse

State: NY

County: Onondaga

Site Name: Firing-In Buttress

Site Description:

The Firing-In Butt is located in the eastern portion of Tract III, south of the northwest-southeast runway. The original MRA was 5.8 acres. The MRA was spilt based on the modified action level for lead of 261 mg/kg. The new updated acreage for SR002 is 0.1 acres. The area contains dense vegetation.

GENERAL INFORMATION REFERENCES:

Section, Page #: 5.3.7/8.2.1.2/8.2.2.2/8.2.3.2/9.5.3/10.3.2.2

POINT OF CONTACT INFORMATION

Last Name: Lynch

Address: 4715 Hewes Avenue

First Name: Brent

City: Syracuse

Organization: Hancock ANGB

State: NY

Phone #: (315) 233-2111

Zip: 39507

Email: Brent.Lynch@ang.af.mil

POINT OF CONTACT REFERENCES:

Section, Page #: 1.3

LOCATION: City: Syracuse
State: NY
County: Onondaga

Latitude: 43.103995
Longitude: -76.092145

LOCATION REFERENCES:

Section, Page #: 2.1/5.3

AREA:

Acreage confirmed as containing UXO: 0

Total Acreage: 0.1

Acreage suspected or potentially containing UXO: 0

Acreage confirmed as NOT containing UXO: 0.1

AREA REFERENCES:

Section, Page #: 5.3.7

CLASSIFICATION:

- | | |
|--|---|
| ☐ Testing | ☐ Small Arms Range |
| ☐ Training | ☐ Skeet Range |
| ☐ Treatment OBOD RCRA | ☐ Waste Military Munitions |
| ☐ Disposal RCRA | ☒ Other* |
| ☐ Buffer Area | |

CLASSIFICATION REFERENCES:

Section: 5.3

Page:

*Description of other: Firing-In Buttress/Bore-sight range

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

RANGE TYPES:

- ☐ Air to Air
 ☐ Air to land
 ☒ Land to land
 ☐ Other*

☐ Air to water
 ☐ Land to air
 ☐ Land to water

*Description of other:

RANGE/SITE TYPES REFERENCES:

Section, Page #: 5.3

ORDNANCE TYPES AND RELATED ANOMALY DENSITY:

Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density	Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density
Medium/Large Caliber (20 mm and larger) ☒	☐	LOW	Demolition charges ☐	☐	
Explosive grenades (hand or rifle) ☐	☐		Military dynamite ☐	☐	
Explosive landmine ☐	☐		Less sensitive explosives (Ammonium Nitrate, etc.) ☐	☐	
Explosive rockets ☒	☐	LOW	Solid or liquid propellants ☐	☐	
Guided Missiles ☐	☐		Toxic chem. agents (choking, nerve, blood, blister) ☐	☐	
Explosive detonators ☐	☐		War gas identification sets ☐	☐	
Blasting caps ☐	☐		Radiological ordnance (e.g., depleted Uranium) ☐	☐	
Practice grenades (with spotting charges) ☐	☐		Riot control agents (vomiting, tear) ☐	☐	
Practice landmines (with spotting charges) ☐	☐		Bombs (explosive) ☐	☐	
Small arms complete round (.22-.50 cal) ☐	☐		Bombs (practice) ☐	☐	
Small arms, expended ☒	☐	LOW	Fuses, Boosters, Bursters ☐	☐	
Practice ordnance (without spotting charges) ☐	☐		Flares, signals, & simulators (other than white phos.) ☐	☐	
White phosphorous ☐	☐		Torpedoes/Sea Mines ☐	☐	
Incendiary material ☐	☐		Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.) ☐	☐	
Primary or initiating explosives ☐	☐				

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.3.7.1/6.1

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

GENERAL MEDIA:

Predominant Soil Type: Sand-Silt/Sand-Clay

Predominant Topography: Flat

Predominant Vegetation: Heavy shrubs and trees

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

GENERAL MEDIA REFERENCES:

Section, Page #: 3.4

GROUNDWATER:

Potential for contamination of drinking water: UNKNOWN

Depth to Groundwater (feet): 3

Is the MRS located above a drinking water aquifer? NO

Sole source aquifer? No

GROUNDWATER REFERENCES:

Section, Page #: 3.5/5.3

ARCHAEOLOGICAL/ECOLOGICAL:

Threatened or endangered species present? ☐ Yes ☒ N

Archaeological or cultural sites present? ☐ Yes ☒ N

ARCHAEOLOGICAL/ECOLOGICAL REFERENCES:

Section: 5.3.8

WETLANDS:

Are there any wetland areas associated with this site? NO

If yes, please list acreage:

WETLANDS REFERENCES:

Section, Page #: 3.3

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

ENVIRONMENTAL RESPONSE:

Have environmental response activities been initiated/conducted on this MRS? ☐ Yes ☒ No

If yes, what is the scope of the response activities?

☐ Past practices

☐ Chemical contamination

☐ Current practices

☐ Ordnance and explosives, including UXO

If yes, what is the status of the response activities?

☐ Data collection

☐ Investigation

☐ Response/remedial action

☐ Monitoring

☐ Close out

☐ Operation and maintenance

If yes, is contamination monitoring (i.e., groundwater sampling and analysis) needed?

If yes, under what authority were/are response actions conducted?

ENVIRONMENTAL RESPONSE REFERENCES:

Section, Page #: N/A

UXO RESPONSE:

What types of UXO response actions have been initiated/conducted on the site?

☒ None

☐ Emergency response actions

☐ UXO response actions associated with ERP activities

☐ Unknown

☐ Routine range clearance/maintenance

☐ Non-time-critical removal actions with Engineering Evaluation/Cost Analysis

☐ Other*

☐ Time-critical removal actions

*Please specify other:

UXO RESPONSE REFERENCES:

Section: N/A

Page:

LAND USE RESTRICTIONS: ☒ No public access ☐ Unrestricted public access
☐ Limited public access
☐ Restricted public access

ACCESS CONTROLS: ☐ No controls ☐ Locked gates
☐ Access signs ☐ Log book
☒ Fencing ☐ Security patrol

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002

Installation: Hancock

TRANSFERRED OR TRANSFERRING RANGES:

For transferred and transferring ranges, what is the nature of the transfer?

Lease to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Ownership transfer to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Additional reasons:

- ☐ Lease termination
- ☐ Revocation of withdrawn land
- ☐ Other***

***Please specify:

LAND USE, ACCESS CONTROL, TRANSFERRED/TRANSFERRING RANGES REFERENCES:

Section, Page #: 5.3.4/5.3.5

LAND USE INTEREST:

- | | |
|---|--|
| ☒ DOD | ☐ Public sector |
| ☐ Federal agency | ☐ Tribal |
| ☐ State government | ☐ Other**** |
| ☐ Local government | |

****Please specify:

LAND USE INTEREST REFERENCES:

Section, Page #:

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG FFID: MRAID: FIB MRS: SR002a
Installation: Hancock

City: Syracuse State: NY County: Onondaga

Site Name: Firing-In Buttress

Site Description:

The Firing-In Butt is located in the eastern portion of Tract III, south of the northwest-southeast runway. The original MRA was 5.8 acres. The MRA was spilt based on the modified action level for lead of 261 mg/kg. The new updated acreage for SR002a is 5.7 acres. SR002a is recommended for NFA. The area contains dense vegetation.

GENERAL INFORMATION REFERENCES:

Section, Page #: 5.3.7/8.2.1.2/8.2.2.2/8.2.3.2/9.5.3/10.3.2.2

POINT OF CONTACT INFORMATION

Last Name: <u>Lynch</u>	Address: <u>4715 Hewes Avenue</u>
First Name: <u>Brent</u>	City: <u>Syracuse</u>
Organization: <u>Hancock ANGB</u>	State: <u>NY</u>
Phone #: <u>(315) 233-2111</u>	Zip: <u>39507</u>
Email: <u>Brent.Lynch@ang.af.mil</u>	

POINT OF CONTACT REFERENCES:

Section, Page #: 1.3

LOCATION:	City: <u>Syracuse</u>	Latitude: <u>43.103995</u>
	State: <u>NY</u>	Longitude: <u>-76.092145</u>
	County: <u>Onondaga</u>	

LOCATION REFERENCES:

Section, Page #: 2.1/5.3

AREA:	Acreage confirmed as containing UXO: <u>0</u>
Total Acreage: <u>5.7</u>	Acreage suspected or potentially containing UXO: <u>0</u>
	Acreage confirmed as NOT containing UXO: <u>5.7</u>

AREA REFERENCES:

Section, Page #: 5.3.7

CLASSIFICATION:

- | | |
|--|---|
| ☐ Testing | ☐ Small Arms Range |
| ☐ Training | ☐ Skeet Range |
| ☐ Treatment OBOD RCRA | ☐ Waste Military Munitions |
| ☐ Disposal RCRA | ☐ Other* |
| ☐ Buffer Area | |

CLASSIFICATION REFERENCES:

Section: 5.3

Page:

*Description of other: Firing-In Buttress/Bore-sight range, NFA

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

Installation: Hancock

RANGE TYPES:

- ☐ Air to Air
 ☐ Air to land
 ☒ Land to land
 ☒ Other*
- ☐ Air to water
 ☐ Land to air
 ☐ Land to water

*Description of other: NFA

RANGE/SITE TYPES REFERENCES:

Section, Page #: 5.3

ORDNANCE TYPES AND RELATED ANOMALY DENSITY:

Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density	Ordnance Types (check all that apply)	Contaminant is a Chemical residue of munitions?	Density
Medium/Large Caliber (20 mm and larger) ☐	☐		Demolition charges ☐	☐	
Explosive grenades (hand or rifle) ☐	☐		Military dynamite ☐	☐	
Explosive landmine ☐	☐		Less sensitive explosives (Ammonium Nitrate, etc.) ☐	☐	
Explosive rockets ☐	☐		Solid or liquid propellants ☐	☐	
Guided Missiles ☐	☐		Toxic chem. agents (choking, nerve, blood, blister) ☐	☐	
Explosive detonators ☐	☐		War gas identification sets ☐	☐	
Blasting caps ☐	☐		Radiological ordnance (e.g., depleted Uranium) ☐	☐	
Practice grenades (with spotting charges) ☐	☐		Riot control agents (vomiting, tear) ☐	☐	
Practice landmines (with spotting charges) ☐	☐		Bombs (explosive) ☐	☐	
Small arms complete round (.22-.50 cal) ☐	☐		Bombs (practice) ☐	☐	
Small arms, expended ☒	☐	LOW	Fuses, Boosters, Bursters ☐	☐	
Practice ordnance (without spotting charges) ☐	☐		Flares, signals, & simulators (other than white phos.) ☐	☐	
White phosphorous ☐	☐		Torpedoes/Sea Mines ☐	☐	
Incendiary material ☐	☐		Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.) ☐	☐	
Primary or initiating explosives ☐	☐				

ORDNANCE TYPES REFERENCES:

Section, Page #: 5.3.7

ANOMALY DENSITY REFERENCES:

Section, Page #: N/A

GENERAL MEDIA:

Predominant Soil Type: Sand-Silt/Sand-Clay

Predominant Topography: Flat

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

Installation: Hancock

Predominant Vegetation: Heavy shrubs and trees

GENERAL MEDIA REFERENCES:

Section, Page #: 3.4/3.5

GROUNDWATER:

Potential for contamination of drinking water: UNKNOWN

Depth to Groundwater (feet): 3

Is the MRS located above a drinking water aquifer? NO

Sole source aquifer? No

GROUNDWATER REFERENCES:

Section, Page #: 3.5/5.3

ARCHAEOLOGICAL/ECOLOGICAL:

Threatened or endangered species present? ☐ Yes ☒ N

Archaeological or cultural sites present? ☐ Yes ☒ N

ARCHAEOLOGICAL/ECOLOGICAL REFERENCES:

Section: 5.3.8

WETLANDS:

Are there any wetland areas associated with this site? NO

If yes, please list acreage:

WETLANDS REFERENCES:

Section, Page #: 3.3

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

Installation: Hancock

ENVIRONMENTAL RESPONSE:

Have environmental response activities been initiated/conducted on this MRS? ☐ Yes ☒ No

If yes, what is the scope of the response activities?

☐ Past practices

☐ Chemical contamination

☐ Current practices

☐ Ordnance and explosives, including UXO

If yes, what is the status of the response activities?

☐ Data collection

☐ Investigation

☐ Response/remedial action

☐ Monitoring

☐ Close out

☐ Operation and maintenance

If yes, is contamination monitoring (i.e., groundwater sampling and analysis) needed?

If yes, under what authority were/are response actions conducted?

ENVIRONMENTAL RESPONSE REFERENCES:

Section, Page #: N/A

UXO RESPONSE:

What types of UXO response actions have been initiated/conducted on the site?

☐ None

☐ Emergency response actions

☐ UXO response actions associated with ERP activities

☐ Unknown

☐ Routine range clearance/maintenance

☐ Non-time-critical removal actions with Engineering Evaluation/Cost Analysis

☐ Other*

☐ Time-critical removal actions

*Please specify other:

UXO RESPONSE REFERENCES:

Section: N/A

Page:

LAND USE RESTRICTIONS: ☒ No public access ☐ Unrestricted public access
☐ Limited public access
☐ Restricted public access

ACCESS CONTROLS: ☐ No controls ☐ Locked gates
☐ Access signs ☐ Log book
☒ Fencing ☐ Security patrol

COMPREHENSIVE SITE EVALUATION: AFRIMS DATA

MAJCOM: ANG

FFID:

MRAID: FIB

MRS: SR002a

Installation: Hancock

TRANSFERRED OR TRANSFERRING RANGES:

For transferred and transferring ranges, what is the nature of the transfer?

Lease to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Ownership transfer to:

- ☐ Federal agency
- ☐ State government
- ☐ Local government
- ☐ Private entity
- ☐ Tribal

Additional reasons:

- ☐ Lease termination
- ☐ Revocation of withdrawn land
- ☐ Other***

***Please specify:

LAND USE, ACCESS CONTROL, TRANSFERRED/TRANSFERRING RANGES REFERENCES:

Section, Page #: 5.3.4/5.3.5

LAND USE INTEREST:

☒ DOD

☐ Public sector

☐ Federal agency

☐ Tribal

☐ State government

☐ Other****

☐ Local government

****Please specify:

LAND USE INTEREST REFERENCES:

Section, Page #: N/A

Appendix L

Public Participation

Page blank intentionally

Military Munitions Response Program Comprehensive Site Evaluation Phase II

February 2012

The Air National Guard

- Is dedicated to protecting human health and the environment by making MRAs safe to reuse.
- Is developing the MMRP by maximizing efficiencies and lessons learned from 20 years of environmental restoration experience.
- Will prioritize MRAs according to environmental, health and safety considerations; current and future planned resource use; and site attributes

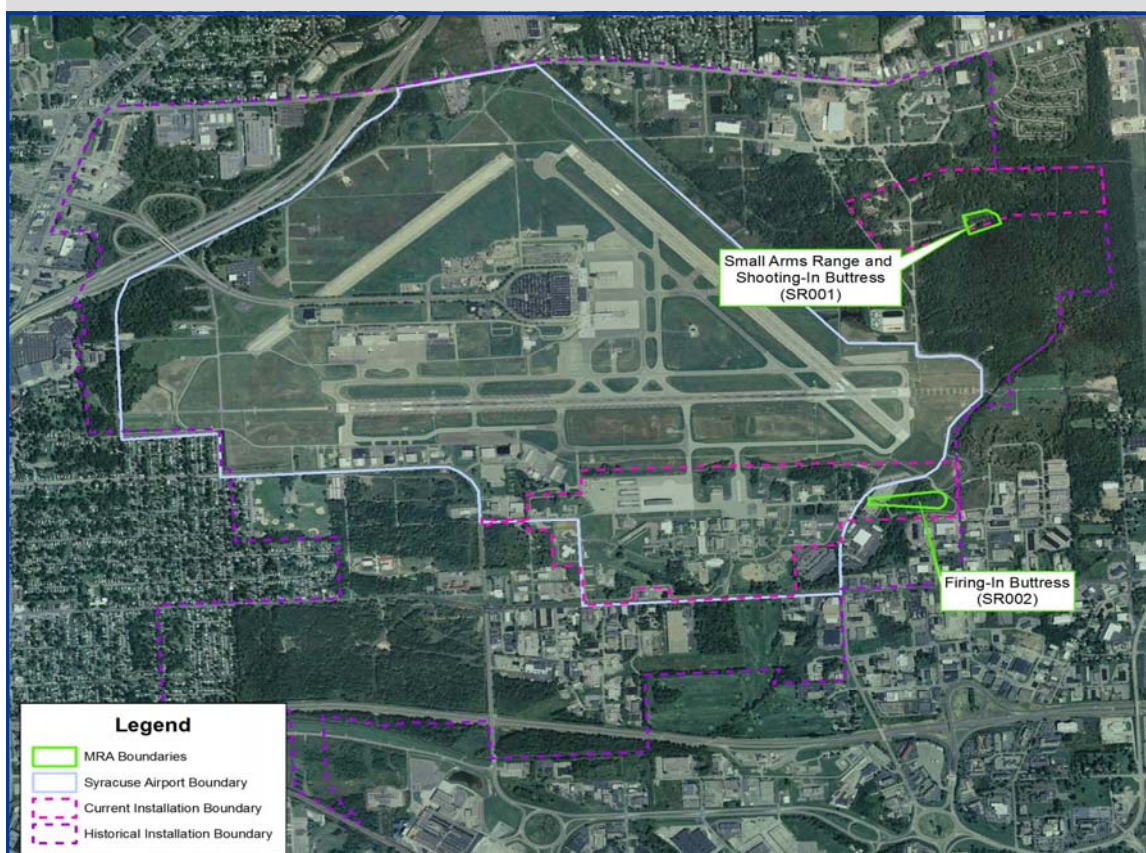
The Air National Guard is utilizing the Comprehensive Site Evaluation (CSE) Phase I and II process developed by the Air Force to serve as the initial munitions response action of its Military Munitions Response Program (MMRP). The goal of the CSE is to obtain sufficient decision making with regard to effectively managing its Munitions Response Areas (MRAs), while protecting human health and the environment. The CSE Phase II is analogous to a CERCLA Site Inspection (SI).

The CSE is an inclusive approach that investigates explosive safety issues created by the potential presence of Munitions and Explosives of Concern (MEC), as well as the environmental hazards posed by the potential presence of Munitions Constituents (MC). The CSE also addresses hazardous wastes, pollutants, and Potential Contaminants of Concern (PCOCs) when these items are present at an MRA.

The Air National Guard views the CSE as the first step in the performance-based, knowledge-driven approach for the MMRP. This approach focuses on achieving end results as opposed to meeting artificial milestones. The Air National Guard will continue to solicit stakeholder participation throughout the CSE process.

The Hancock Field ANGB CSE Phase I Final Report was issued in September 2009. The CSE Phase II was initiated thereafter. CSE Phase II activities included work plan preparation; visual surveys; X-ray Fluorescence (XRF) analysis of soils; report preparation; public participation support; and administrative record updates. The CSE Phase II field activities were completed in September 2010.

Hancock Field ANGB Munitions Response Areas



Acronyms:

ANGB	-Air National Guard Base
CERCLA	-Comprehensive Environmental Response Compensation and Liability Act
CSE	-Comprehensive Site Evaluation
CSM	-Conceptual Site Model
EESOH-MIS	-Enterprise Environmental, Safety & Occupational Health Management Information System
EPA	-Environmental Protection Agency
MC	-Munitions Constituent
MEC	-Munitions and Explosives of Concern
MMRP	-Military Munitions Response Program
MRA	-Munitions Response Area
MRSP	-Munitions Response Site Prioritization Protocol
NFA	-No Further Action
PCOC	-Potential Contaminant of Concern
SAR	-Small Arms Range
SI	-Site Investigation
USAF	-U.S. Air Force
XRF	-X-ray Fluorescence

FOR MORE INFORMATION PLEASE CONTACT:

TSgt Brent Lynch
Installation Environmental Manager
Brent.Lynch@us.af.mil



Visual Survey Results

Visual surveys were completed at the two MRAs in September 2010. The visual surveys were completed to identify munitions debris and significant site features related to historical munitions activities or environmental characteristics.

Approximately 9.5 acres of the two MRAs were covered by visual survey transects. There was no evidence MEC observed on any MRA. There was evidence of small arms activity, small arms debris, and munitions debris observed at the Small Arms Range and Shooting-In Buttress (SR001) and Firing-In Buttress MRAs (SR002).

Soil Sampling Results

Soil sampling was conducted at both of the MRAs. XRF and laboratory lead analysis were completed at the Small Arms Range and Shooting-In Buttress (SR001) and Firing-In Buttress (SR002) to determine if there were potential impacts to soil from small arms range activities. Sample results indicated that lead contamination was found at both MRAs based on the EPA residential regulatory screening level for lead.

CSE Phase II Report

Based on the visual survey and XRF sampling the CSE Phase II Report has been completed and includes:

- Summaries of the MRAs
- Visual survey results
- XRF-sampling analytical results
- Human health and ecological risk screening evaluations
- Conceptual Site Models (CSM) that document the potential hazards, pathways, and receptors
- MRSP ratings to prioritize the MRAs for future actions
- Data for cost estimating and other required program management functions
- Recommendations for No Further Action (NFA) and closure under the ANG MMRP for sites with soil below the regulatory screening levels
- Recommendations for further munitions response actions for sites with soil greater than the regulatory screening levels
- A summary of the MRAs is presented in the Table below:

CSE Phase II Summary of MRAs at Hancock Field ANGB					
MRA Name	MRA Size	MRA Type	Munitions Types	CSE Phase II Results	Recommendations
Small Arms Range and Shooting-In Buttress (SR001)	1.9 acres	SAR	Small arms debris and munitions debris	Eight soil samples exceeded the human health regulatory action levels for lead	Further munitions response
Small Arms Range and Shooting-In Buttress (SR001a)	1.8 acres	SAR	Small arms debris and munitions debris	No soil samples exceeded the human health regulatory action levels for lead	No further munitions response
Firing-In Buttress (SR002)	0.1 acres	Non-SAR	Small arms debris and munitions debris	Two soil sample exceeded the human health regulatory action levels for lead	Further munitions response
Firing-In Buttress (SR002a)	5.7 acres	Non-SAR	Small arms debris and munitions debris	No soil samples exceeded the human health regulatory action levels for lead	No further munitions response