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FINAL PRELIMINARY ASSESSMENT/SITE INSPECTION REPORT MILITARY MUNITIONS RESPONSE PROGRAM SITE UNEXPLODED ORDNANCE 24 (UXO 24) AND INSTALLATION RESTORATION PROGRAM SITE 37 MCB CAMP LEJEUNE NC

10/01/2014

CH2M HILL

Final

Preliminary Assessment/Site Inspection Report Military Munitions Response Program Site UXO-24 and Installation Restoration Program Site 37

Marine Corps Installations East—Marine Corps Base Camp Lejeune North Carolina

Contract Task Order 014

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Executive Summary

This report documents the findings of a preliminary assessment and site inspection (PA/SI) conducted at United States Marine Corps Military Munitions Response Program (MMRP) Site UXO-24 and the Installation Restoration Program (IRP) Site 37. The PA/SI was conducted by CH2M HILL under the Naval Facilities Engineering Command (NAVFAC) Comprehensive Long-Term Environmental Action—Navy (CLEAN) Contract N62470-08-D-1000, Contract Task Order 014.

Site UXO-24 is a 9-acre area located within a portion of Marine Corps Installations East-Marine Corps Base Camp Lejeune (MCIEAST–MCB CAMLEJ) known as Camp Geiger (United States Army Corps of Engineers, 2001). A 4-acre wooded portion of IRP Site 37 overlaps Site UXO-24. The site topography is relatively flat and partially forested.

Ammunition cans containing live small arms ammunition (SAA) were discovered on the ground surface adjacent to small hand dug excavations located east of Building TC-611 in 2010. Following the discovery of these excavations, MCIEAST–MCB CAMLEJ Explosive Ordnance Disposal (EOD) conducted a limited surface sweep of the area and found several additional small hand-dug excavations containing unexpended SAA and one munitions and explosives of concern (MEC) item (Signal, Illumination, Ground, Cluster, M158, unexpended). Based on these discoveries, the site was identified by MCIEAST–MCB CAMLEJ for additional investigation under the MMRP. In addition, pesticides and herbicides were detected in soils at concentrations above screening levels in conjunction with the Site 37 Confirmatory Sampling Assessment (CSA) (Osage of Virginia Inc., 2011), requiring additional assessment activities.

The objectives of the Site UXO-24 PA/SI were to:

- Evaluate the potential presence of MEC and material potentially presenting an explosive hazard (MPPEH).
- Evaluate the potential for unacceptable risk from pesticides and herbicides in soil.

Environmental Investigation Results

In March and April 2010 eight subsurface soil samples were collected at Site 37 as part of the CSA (Osage, 2011). In July 2013, four surface soil and six subsurface soil samples were collected at locations within the portion of Site 37 that overlaps Site UXO-24. Sampling was conducted in accordance with the Site UXO-24 PA/SI Uniform Federal Policy-Sampling and Analysis Plan (UFP-SAP) (CH2M HILL, 2013a). The CSA and PA/SI sampling results are as follows:

- Three chlorinated pesticides were detected in surface soil samples. Dieldrin was the only pesticide detected in surface soil at concentrations that exceeded both the background threshold values (BTV) and at least one regulatory criterion (the North Carolina soil screening level [NC SSL]). No herbicides were detected in surface soil samples.
- Ten pesticides were detected in subsurface soil samples. Dieldrin and 4,4- dichlorodiphenyltrichloroethane (DDT) were the only pesticides detected at concentrations that exceeded both the BTV and NC SSL. Meta-Chlorophenylpiperazine (MCPP) was the only herbicide detected in subsurface soil that exceeded a regulatory criterion (Regional Screening Level [RSL] – Residential).

The human health risk screening and the ecological risk assessment indicated that the concentrations of pesticides and herbicides detected in surface and subsurface soil are not expected to result in unacceptable human health or ecological risks.

MEC Results

The following summary of MEC findings includes the results of the MCIEAST–MCB CAMLEJ EOD initial response and the PA/SI field activities. A total of 15 MEC items were found.

During the Base EOD initial response, one MEC item (Signal, Illumination, Ground, Cluster, M158, unexpended) was discovered in the wooded area east of Building TC-611.

The PA/SI included digital geophysical mapping (DGM) over 100 percent of an approximately 2.5-acre area (approximately 25 percent of site) closest to Building TC-611 in April 2012. The DGM resulted in the identification of 1,512 geophysical anomalies. An intrusive investigation of 989 of the anomalies closest to Building TC-611, covering approximately 2 acres (22 percent of Site UXO-24), was conducted in July and August 2013. The PA/SI intrusive investigation resulted in the discovery of fourteen MEC items:

- Two 40-millimeter (mm) high explosive (HE) projectiles (Projectile, 40-mm, high-explosive dual purpose (HEDP), M430, Unfired)
- One 40-mm projectile (Projectile, 40-mm, White Star Cluster, M58A1, Unfired)
- Eleven fuzes (Fuze, Grenade, M228, Impinged Primers, Unfired)

MEC was found at two locations during the PA/SI field activities: Thirteen MEC items [11 hand grenade fuzes, one M430 High Explosive Dual Purpose (HEDP) projectile, and one M58A1 projectile] were discovered in a buried ammunition can, and one MEC item (M430 HEDP projectile) was found buried in a shallow excavation approximately 13 feet from the ammunition can location.

The sources of the remaining investigated anomalies were primarily debris such as wire, nails, wrenches, pipes, asphalt, automobile parts, and construction debris. Petroleum odors were observed in three excavations during the intrusive investigation, indicating that waste petroleum material may also have been disposed in addition to the other debris uncovered during the intrusive investigation.

An assessment of explosive hazards was conducted to evaluate the relative risks posed to human receptors by MEC and MPPEH potentially present at Site UXO-24. The results of the explosive hazard assessment indicate that the risks associated with the potential presence of MEC/MPPEH are low due to the low probability of encountering MEC/MPPEH combined with the low likelihood of an unintended detonation. There is a low probability of encountering MEC/MPPEH because all MEC/MPPEH items were discovered below ground and ground-disturbing activities at the site are not routinely conducted and are not anticipated in the future. Furthermore, the 100 percent intrusive investigation of the area adjacent to Building TC-611 reduced the likelihood of encountering MEC/MPPEH. If MEC/MPPEH is encountered and is consistent with the types previously discovered, the probability of an unintentional detonation by casual contact or limited intentional contact is low. Even more aggressive contact, such as striking the item or throwing the item, would not likely cause it to function. However, putting the item in a fire or attempting to disassemble the item would likely cause it to function as designed, which could result in serious injury or death. The low likelihood of encountering MEC/MPPEH coupled with the low likelihood of an item functioning due to casual or limited intentional contact combine to indicate that the explosive hazard is low.

Recommendations

Based on the results of the PA/SI, an Expanded Site Investigation (ESI) is recommended to delineate the nature and extent of the waste disposal area. Based on the findings of the ESI, the path forward for the site under the IRP and MMRP will be determined. An Explosives Safety Submission (ESS) Amendment will be needed to conduct additional MEC/MPPEH investigation activities because one MEC item was found that was larger than the contingency Munition with the Greatest Fragmentation Distance (MGFD) in the current ESS. The ESS Amendment should include procedures for construction support for any drainage or utility maintenance.

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Acronyms and Abbreviations

µg/kg	microgram(s) per kilogram
bgs	below ground surface
BTV	background threshold value
CLEAN	Comprehensive Long-Term Environmental Action—Navy
COPC	chemical of potential concern
CSA	confirmatory sampling assessment
CSM	conceptual site model
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DGM	digital geophysical mapping
EcoSSL	ecological soil screening level
EOD	Explosive Ordnance Disposal
ERS	ecological risk screening
ESS	explosives safety submission
ESV	ecological screening value
°F	degree(s) Fahrenheit
HEDP	high explosive dual purpose
HHRS	human health risk screening
HQ	hazard quotient
IAS	Initial Assessment Study
IDW	investigative derived waste
IRP	Installation Restoration Program
LTM	Long Term Monitoring
MC	munitions constituents
MCIEAST-MCB CAMLEJ	Marine Corps Installations East–Marine Corps Base Camp Lejeune
MCPP	meta-Chlorophenylpiperazine
MDAS	material documented as safe
MEC	munitions and explosives of concern
MGFD	Munition with the Greatest Fragmentation Distance
mm	millimeter(s)
MMRP	Military Munitions Response Program
MPPEH	material potentially presenting an explosive hazard
MRP	Munitions Response Program
NAVFAC	Naval Facilities Engineering Command
Navy	United States Navy
NCDENR	North Carolina Department of Environment and Natural Resources
NC SSL	North Carolina soil screening level
Osage	Osage of Virginia
PA/SI	preliminary assessment/site inspection
PCB	polychlorinated biphenyl
PPE	personal protective equipment

QC	quality control
RSL	regional screening level
SAA	small arms ammunition
SVOC	semivolatile organic compound
UFP-SAP	Uniform Federal Policy-Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency
UXO	unexploded ordnance
VOC	volatile organic compound

SECTION 1

Introduction

This report documents the findings of a preliminary assessment/site inspection (PA/SI) conducted at United States Marine Corps Military Munitions Response Program (MMRP) Site UXO-24 and Installation Restoration Program (IRP) Site 37 at Marine Corps Installations East–Marine Corps Base Camp Lejeune (MCIEAST–MCB CAMLEJ) in North Carolina (**Figure 1-1**). CH2M HILL conducted the PA/SI under the Naval Facilities Engineering Command (NAVFAC) Comprehensive Long-Term Environmental Action—Navy (CLEAN) Contract N62470-08-D-1000, Contract Task Order 014.

1.1 Purpose and Objectives

The purpose of the PA/SI was to investigate the sites under the MMRP based on munitions and explosives of concern (MEC), material potentially presenting an explosive hazard (MPPEH), and small arms ammunition (SAA) discovered at the site; and to implement the additional soil assessment recommended in the Site 37 Confirmatory Sampling Assessment (CSA) (Osage, 2011). The objectives of the PA/SI were as follows:

- Evaluate the potential presence of MEC and MPPEH.
- Evaluate the potential for unacceptable risk from pesticides and herbicides in soil.

1.2 Approach

The approach for accomplishing the investigation objectives included:

- Perform a digital geophysical mapping (DGM) survey and intrusive investigation of geophysical anomalies to evaluate the potential presence of MEC and MPPEH.
- Evaluate the concentrations of pesticides and herbicides in surface soil at locations where subsurface soil was sampled during a previous Site 37 investigation.
- Evaluate the concentrations of pesticides and herbicides in surface and subsurface soil samples adjacent to locations where pesticides and herbicides were detected in subsurface soil during a previous Site 37 investigation.
- Conduct human health and ecological risk screenings.

The PA/SI field activities were conducted in accordance with the *Uniform Federal Policy-Sampling and Analysis Plan (UFP-SAP) for Preliminary Assessment/Site Inspection, Unexploded Ordnance (UXO) Site UXO-24, Camp Geiger Burial Area* (CH2M HILL, 2013a); *Explosives Safety Submission (ESS) for Munitions Response Activities, Site UXO-24 Camp Geiger Burial Area (ESS-126)* (CH2M HILL, 2012); and the Munitions Response Program (MRP) master project plans (CH2M HILL, 2008).

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Legend

- UXO-24 Boundary
- Site 37 Boundary
- Highways
- Onslow County
- Installation Boundary

N

0 7,500 15,000 Feet

1 inch = 15,000 feet

Figure 1-1
Base Location Map
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

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SECTION 2

Site Background

Section 2 summarizes regional and site-specific information, including location, site setting, physical characteristics, and history.

2.1 MCIEAST–MCB CAMLEJ Location and Description

MCIEAST–MCB CAMLEJ covers an area of approximately 236 square miles in Onslow County, North Carolina, and is bisected by the New River, which flows in a southeasterly direction toward the Atlantic Ocean (**Figure 1-1**). Construction of MCIEAST–MCB CAMLEJ began in 1941 with the objective of developing the world's most complete amphibious training base.

The current mission of MCIEAST–MCB CAMLEJ is to maintain combat-ready units for expeditionary deployment. MCIEAST–MCB CAMLEJ provides housing, training facilities, logistical support, and administrative supplies for Fleet Marine Force units and other assigned units. The Base and surrounding community are home to an active-duty, dependent, retiree, and civilian population of approximately 170,000 people. Land use surrounding MCIEAST–MCB CAMLEJ is varied. Mainly commercial properties are located along the northern boundary, with a mix of agricultural lands and residential areas located along the eastern and western boundaries of the Base. The southern boundary of MCIEAST–MCB CAMLEJ extends to the New River and Atlantic Ocean.

2.2 Site Setting

Site UXO-24 covers a total area of approximately 9 acres of mostly wooded land east of G Street in the Camp Geiger area of MCIEAST-MCB CAMLEJ (**Figure 2-1**). Site UXO-24 also includes 4 acres of Site 37, the former Camp Geiger Surface Dump. The site is undeveloped, heavily vegetated, bisected by a utility corridor, and bordered to the northeast by the U.S. Highway 17 bypass. A storm water drainage ditch, which flows to an unnamed tributary of Brinson Creek, is present in the southern portion of the site and flows to south.

The land use control (LUC) boundaries of IRP Sites 35 and 36 overlap portions of Site UXO-24 and Site 37. IRP Sites 35 and 36 are monitored as part of the IRP long-term monitoring program, and sentinel downgradient monitoring wells associated with these sites are located within the Site UXO-24 and Site 37 boundaries (**Figure 2-2**).

2.3 Site History

Prior to the 1950s, the site was completely wooded. Between 1950 and 1951, the area was used as a surface dump for items such as wood, tires, and scrap metal. During the late 1950s, this area was partially cleared for the construction of a carpenter shop, lumber rack, and paint shop in the northern portion of the site (**Appendix A**). A CSA was conducted at Site 37 in March 2010 (**Table 2-1**). The investigation included subsurface soil and groundwater sampling activities throughout Site 37. The results of the investigation indicated that pesticides and herbicides are present in subsurface soil at concentrations exceeding screening criteria (Osage, 2011). The sources of pesticides and herbicides at Site 37 are unknown and could potentially be associated with past disposal practices.

In 2010, ammunition cans containing SAA were discovered on the ground surface adjacent to small hand dug excavations located east of Building TC-611. Following the discovery of these excavations, MCIEAST–MCB CAMLEJ Explosive Ordnance Disposal (EOD) conducted a limited surface sweep of the area and found several additional small hand-dug excavations containing unexpended SAA and one MEC item (Signal, Illumination, Ground, Cluster, M158, unexpended).

2.4 Previous Investigations

Table 2-1 provides a summary of previous investigations.

TABLE 2-1
Previous Investigations

Previous Investigation	Activities	Investigation Results
Initial Assessment Study (IAS) (WAR, 1983)	The IAS was conducted to identify potential hazardous sites at MCIEAST-MCB CAMLEJ. No hazardous wastes were reportedly disposed at Site 37.	No further assessment recommended.
Long Term Monitoring (LTM) Annual Report – Site 35,36	Sites 35 and 36 are in the annual MCIEAST-MCB CAMLEJ LTM program. Monitoring wells IR35-MW69IW, IR35-MW41IW, and IR36-GW17 are located within and adjacent to Site UXO-24. IR35-MW69IW is sampled for volatile organic compounds (VOCs) as part of the annual LTM monitoring program; however, monitoring wells IR35-MW41IW and IR36-GW17 are not part of the current LTM sampling program.	Groundwater samples collected from IR35-MW69IW were last collected in 2012 and had no detections except cis-1,2-DCE which was detected below the North Carolina Ground Water Quality Standard (NCGWQS). Groundwater samples from IR35-MW41IW and IR36-GW17 were last collected in 1996 and 1997 and VOCs were not detected at concentrations exceeding the NCGWQS.
EOD Response (2010)	Two ammunition cans containing unexpended SAA were discovered on the ground surface adjacent to a small hand-dug excavation located east of Building TC-611. Following the discovery of the excavation and ammunition, the Base EOD unit conducted a surface sweep of the area and found several small hand-dug excavations containing munitions.	Based on the discovery of MEC and MPPEH, the site was identified by the Base for investigation under the MMRP (Commanding Officer, 2010). The items recovered during the EOD response and the quantities found include the following: - (1) Signal, Illumination, Ground, Cluster M158, unexpended (MEC) - (1) Grenade, Hand, Smoke M18, expended - (1) Cartridge case, 40-milimeter (mm), practice, M212, unexpended - (2,207) 5.56-mm blank round - (33) 9-mm AA12 rounds - (5) 9-mm AA21 rounds - (22) 5.56-mm tracer rounds - (79) 5.56-mm ball rounds - (3) 7.62-mm ball rounds - (16) 7.62-mm blank rounds - (1) 25-mm casing - AK74 blank rounds (quantify unspecified)
Confirmatory Sampling Report (Osage, 2011)	A CSA was conducted to verify the presence or absence of contamination due to the site's former history as a dump. The environmental sampling consisted of: • Collection of 8 subsurface soil samples at a depth of 1 foot to 5 feet below ground surface (bgs) **(Figure 2-2)** • Installation of 3 temporary monitoring wells **(Figure 2-2)** and collection of groundwater samples All samples were analyzed for VOC, semivolatile organic compounds (SVOC), metals, pesticides, herbicides, and polychlorinated biphenyls (PCBs). Human health and ecological risk screenings were performed.	**Subsurface soil sample results:** No PCBS were detected in the soil. VOCs, SVOCs, metals, pesticides, and herbicides were detected at concentrations exceeding Base background levels and other regulatory standards. No human health risks were identified. The ecological risk screening identified the following chemicals of potential concern (COPCs) in subsurface soil: • 4,4'-dichlorodiphenyldichloroethene (4,4'-DDE) • 4,5'-dichlorodiphenyltrichloroethane (4,5'-DDT) • dieldrin • meta-Chlorophenylpiperazine (MCPP) Additional investigation of pesticide and herbicide contamination in site soils was recommended. **Groundwater sample results:** No SVOCs, pesticides, herbicides, or PCBs were detected. VOCs and metals were detected at concentrations exceeding Base background levels and other regulatory standards; however, risk screening results indicate that there are no unacceptable risks to human or ecological receptors.

2.6 Site Geology and Hydrogeology

Shallow sediments underlying the site to a depth of 10 feet bgs consist of fine silty sands and clays. Dark grey to dark brown silty sand and clay, with traces of organic matter and shell hash, were encountered from 10 to 20 feet bgs during previous investigations (Osage, 2011). The depth to groundwater ranged from approximately 4 to 18 feet bgs. The direction of shallow groundwater flow is northeast toward Brinson Creek.

The LUC boundaries established for Sites 35 and 36 overlap the Site UXO-24 and Site 37 boundaries to prevent the use of groundwater from both the surficial and Castle Hayne aquifers (**Figure 2-2**).

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Legend

- Site 37 Boundary
- UXO-24 Boundary
- Jurisdictional Wetlands
- Stream
- Storm Sewer Open Drainage Ditch
- Storm Sewer Line

N

0 100 200 Feet

1 inch = 200 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 2-1
Site Boundaries Map
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

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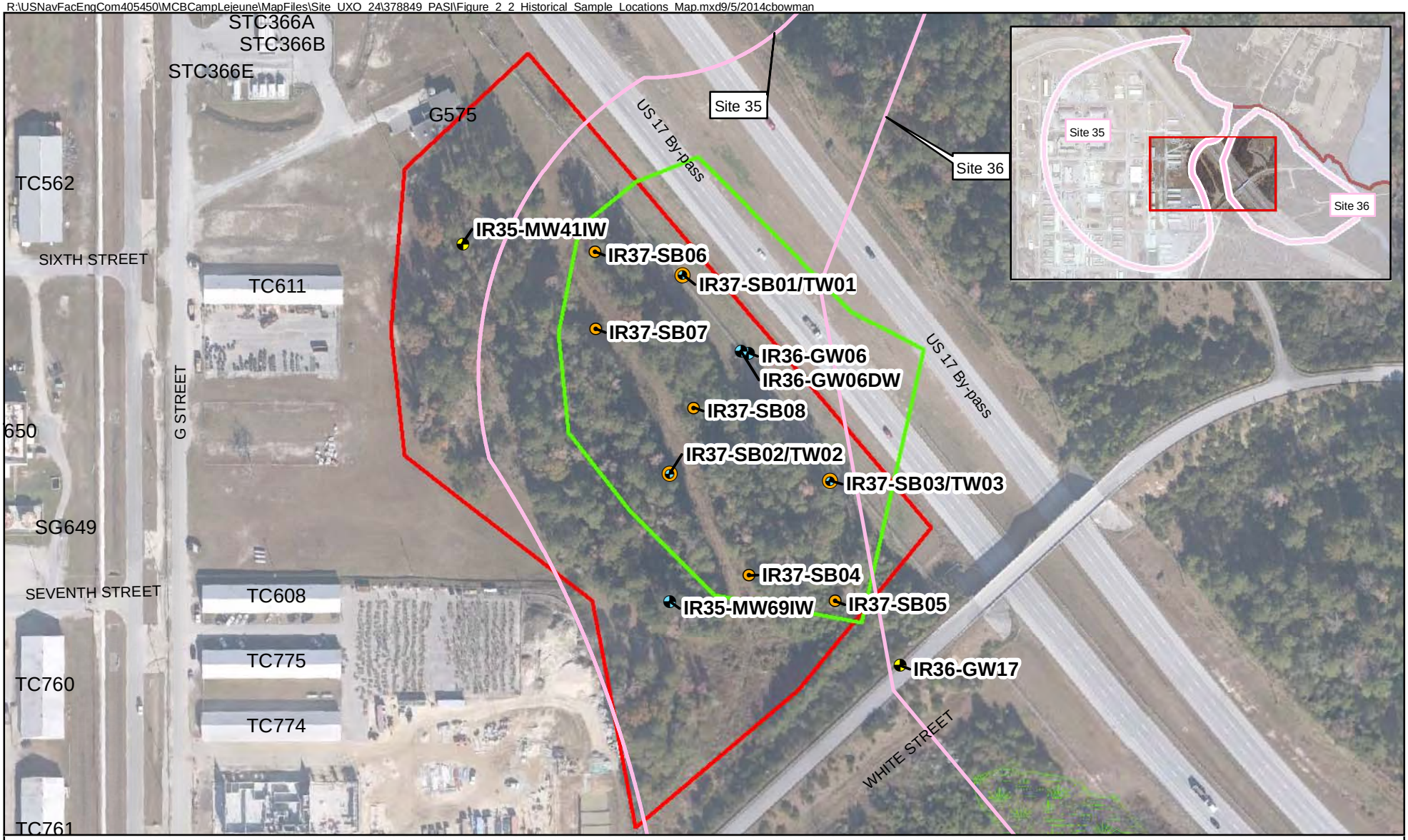

Legend

- Monitoring Well
- Abandoned Monitoring Well
- CSA Soil Sample Location (Osage, 2011)
- CSA Soil/Groundwater Sample Location (Osage, 2011)
- Site 37 Boundary
- UXO-24 Boundary
- Installation Boundary
- Jurisdictional Wetlands

Land Use Control Boundaries

- Aquifer Use Control Boundary

N

0 50 100 200 Feet

1 inch = 200 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 2-2
Previous Sample Locations Map
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

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SECTION 3

Field Investigation Activities

This section presents the PA/SI field activities that were conducted in 2012-2013. The DGM field activities were conducted in April/May 2012 and the remaining PA/SI field investigation activities were conducted in July/August 2013. The technical approach was developed by the MCIEAST–MCB CAMLEJ Tier I Partnering Team, which consists of representatives from the United States Navy (Navy), MCIEAST–MCB CAMLEJ, the U.S. Environmental Protection Agency (USEPA) Region 4, and the North Carolina Department of Environment and Natural Resources (NCDENR).

3.1 Field Investigation Activities Summary

The following field activities were conducted:

- Site preparation and support
  - Vegetation clearance
  - Land surveying
- Environmental Investigation Activities
  - Surface soil sampling
  - Subsurface soil sampling
  - Investigative derived waste management
- Munition Investigation Activities
  - DGM survey
  - MEC intrusive investigation
  - Post-detonation soil sampling

Unexploded ordnance (UXO) technicians qualified in accordance with Department of Defense Explosives Safety Board Technical Paper 18 (Department of Defense Explosives Safety Board, 2004) provided MEC escort and avoidance services during all field investigation activities which included the environmental sampling, surveying, and vegetation clearing (CH2M HILL, 2012).

3.2 Site Preparation and Support

This section describes activities conducted in order to prepare for the environmental sampling, DGM, and intrusive investigation.

3.2.1 Vegetation Clearing

Vegetation clearing was accomplished using a tracked machine equipped with a 5-foot-wide clearing tool, followed by manual removal using loppers, hand saws, or similar tools if necessary. Felled brush and trees were mulched and left on the site. Trees greater than 3 inches in diameter were not removed. Overhanging vines and protruding branches that could interfere with the safe and effective performance of investigation activities were also removed.

3.2.2 Surveying

Land surveying activities were performed by a North Carolina–licensed surveyor to mark the vegetation clearing boundaries and to establish a staked grid system for determining positioning data for the DGM survey. The land surveyor also re-acquired the DGM anomalies for intrusive investigation and marked the locations.

3.3 Environmental Investigation Activities

The PA/SI sampling locations were selected to supplement environmental characterization data collected during the CSA sampling at Site 37 (Osage, 2011).

3.3.1 Surface Soil Sampling

Four surface soil samples were collected using the TR-02-1 sampling method (**Figure 3-1**). Thirty aliquots of soil were randomly collected from a 1-meter by 1-meter area at each sampling location and homogenized in a stainless steel bowl. A portion of the composited sample was then placed into appropriate glass jars for laboratory analysis.

The surface soil samples were packed into coolers with ice and shipped under chain-of-custody control and analyzed for pesticides (SW846 8081A) and herbicides (SW846 8151A).

3.3.2 Subsurface Soil Sampling

Six subsurface soil samples were collected using a hand auger (**Figure 3-1**) from 1 to 5 feet bgs. The subsurface soil was then homogenized in a stainless steel bowl. A portion of the composited sample was placed into appropriate glass jars for laboratory analysis.

The subsurface soil samples were packed into coolers with ice and shipped under chain-of-custody control and analyzed for pesticides (SW846 8081A) and herbicides (SW846 8151A).

3.3.3 Investigation-Derived Waste Management

Investigation-derived waste (IDW) was managed and disposed of in accordance with the Base Waste Management Plan (CH2M HILL, 2013b). IDW generated during field events consisted of decontamination fluids, disposable equipment, and personal protective equipment (PPE). Liquid wastes were placed in labeled 55-gallon drums and staged at the drum locker behind Building TC828 in Camp Geiger. Disposable equipment, including PPE, nitrile gloves, and paper towels, was placed in trash bags and disposed of in an on-Base dumpster.

An IDW sample was collected and analyzed for toxicity characteristic leaching procedure (TCLP SW-846 1311). The IDW generated during the PA/SI field activities was found to be non-hazardous and was disposed offsite.

3.4 Munitions Investigation Activities

3.4.1 Digital Geophysical Mapping

CH2M HILL conducted DGM using an EM61-MK2 instrument over 100 percent of approximately 2.5 acres (approximately 25 percent of the site) to the east of Building TC-611 (**Figure 3-2**) in April/May 2012. The DGM survey area was selected by the Partnering Team based on munitions that were discovered on the ground surface adjacent to small hand dug excavations located east of Building TC-611 in 2010. The objective of the DGM was to identify anomalies indicative of potential subsurface MEC/MPPEH within the survey boundary. Prior to the DGM survey, a North Carolina-licensed professional land surveyor delineated the DGM survey boundary area. Wooden stakes were used to mark 50-by-50-meter grids over the survey area.

The DGM survey identified 1,512 anomalies and 10 saturated response areas (areas with higher concentration of anomalies from potential underground utilities or higher concentration of metal debris/materials). The results of the DGM survey are depicted on **Figure 3-3** and the DGM investigation report is presented in **Appendix B**.

3.4.2 MEC Intrusive Investigation

The following field activities were conducted:

- Reacquisition of the geophysical anomalies identified during the DGM survey for intrusive investigation.
- Manual excavation and identification of the sources of anomalies
- Removal verification by rechecking with the EM61-MK2 to ensure that additional metallic items were not present beneath the removed item followed by excavation backfilling
- Demilitarization of MPPEH
- Intentional demolition of MEC
- Disposal of material documented as safe (MDAS)

- Collection of a post-detonation surface soil sample from inside the detonation location crater

The anomalies closest to Building TC-611 were selected for investigation since the Base EOD found MEC/MPPEH on the ground surface adjacent to small hand dug excavations east of Building TC-611 in 2010. The intrusive investigation focused on 989 of the 1,512 anomalies identified because of their proximity directly behind Building TC-611 (**Figure 3-4**).

Excavation of anomalies was performed to a depth of 2 feet bgs. The EM61-MK2 can reliably detect objects grenade-sized or larger at depths of up to 2 feet bgs. Therefore, excavation of the selected anomalies was performed to a depth of 2 feet bgs based on findings from the initial EOD response that indicated the improper unauthorized disposal of munitions items in shallow hand-dug excavations.

3.4.3 Post-Detonation Soil Sampling

MEC items that were not collected by Base EOD were disposed of by on-site controlled detonation. One post-detonation soil sample was collected using the TR-02-1 sampling method (**Figure 3-1**). Thirty aliquots of soil were randomly collected from a 1-meter by 1-meter area focused at the center of MEC/MPPEH detonation location and homogenized in a stainless steel bowl. A portion of the composited sample was then placed into appropriate glass jars for laboratory analysis.

The post-detonation sample was analyzed for explosives residues (SW-846 USEPA Method 8330), including pentaerythritol tetranitrate and nitroglycerin; perchlorate (SW-846 USEPA Method 6850); and metals (including mercury [SW-846 USEPA Methods 6010C and 7471B]).

3.4.4 Quality Assurance and Quality Control

Each excavation location was checked with the EM61-MK2 as part of the quality control (QC) process. Additional QC inspections were performed by the UXO quality control specialist and consisted of checking 10 percent of the intrusively investigated anomaly locations using an EM61-MK2 to determine if all detectable metallic items had been removed or if not removed, an explanation was provided (such as nail pit that was left in place). Quality assurance/QC removal verification requirements and analysis were followed, as described in the UFP-SAP (CH2M HILL, 2013a). Both of the QC seed items buried onsite during the DGM activities were recovered.

R:\USNAVFACENGCOM405450\MCBCAMPLEJEUNE\MAPFILES\SITE_UXO_24\378849_PASI\FIGURE_3_1_SAMPLE_LOCATIONS.MXD CBOWMAN 9/5/2014 1:32:15 PM

Legend

- Post-Detonation Sample
- PA/SI Subsurface Soil Sample Locations
- CSA Subsurface Soil Sample Locations
- CSA Subsurface and PA/SI Surface Soil Sample Locations
- Site 37 Boundary
- Jurisdictional Wetlands
- UXO-24 Boundary

N

0 100 200 Feet

1 inch = 200 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 3-1
Sample Locations
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL.

R:\USNAVFACENGCOM405450\MCBCAMPLEJEUNE\MAPFILES\SITE_UXO_24\378849_PASI\FIGURE_3_2_DGM_INVESTIGATION_AREA.MXD BMAILHES 7/11/2014 11:58:55 AM

Legend

- UXO-24 Boundary
- DGM Survey Area
- Jurisdictional Wetlands

N

0 100 200 Feet

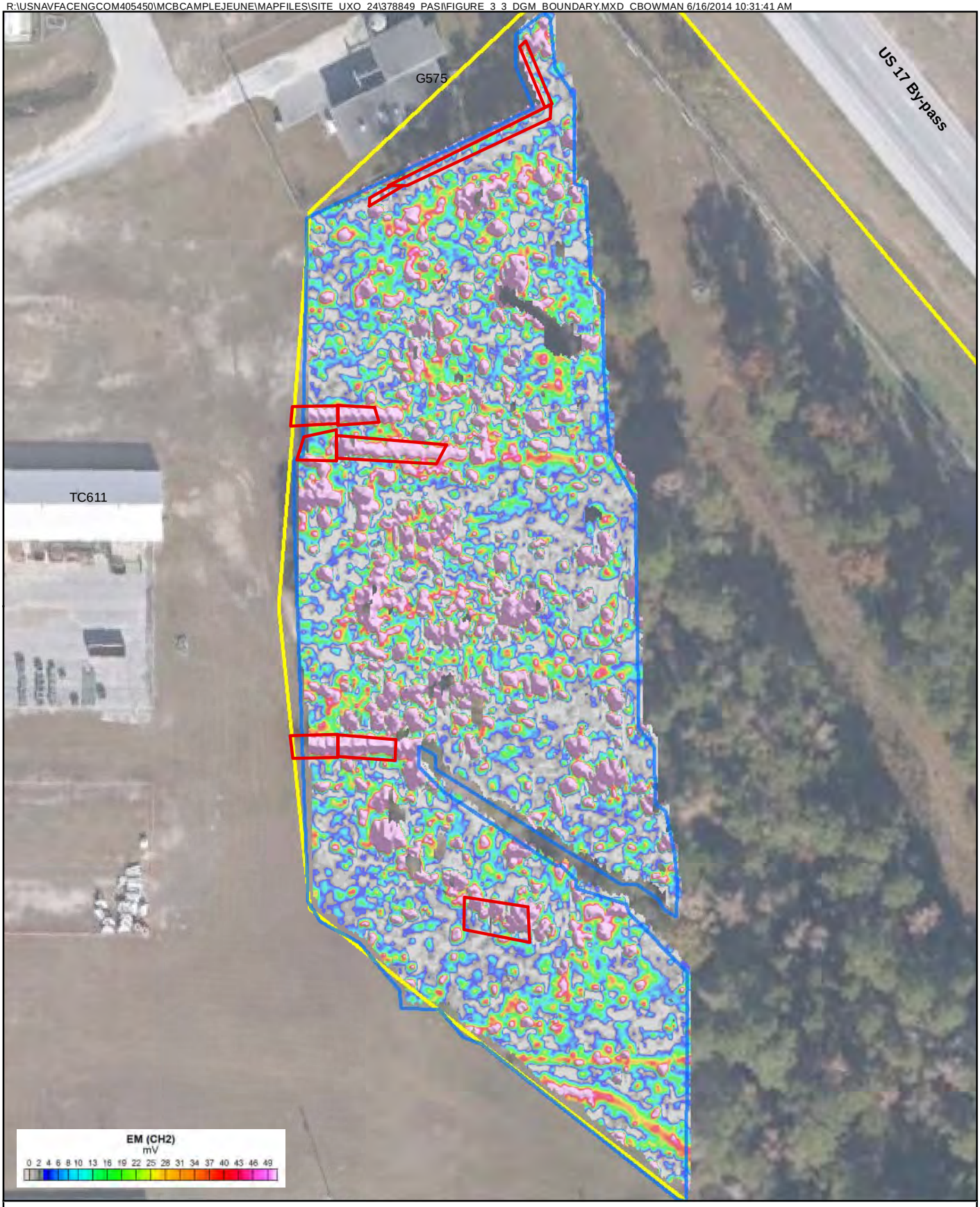
1 inch = 200 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 3-2
DGM Investigation Area
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL.

R:\USNAVFACENGCOM405450\MCBCAMPLEJEUNE\MAPFILES\SITE_UXO_24\378849_PASI\FIGURE_3_3_DGM_BOUNDARY.MXD CBOWMAN 6/16/2014 10:31:41 AM



Legend

- DGM Boundary
- UXO-24 SRA Boundary
- UXO-24 Boundary
- Jurisdictional Wetlands

Note:
SRA - Saturated Response Area

N

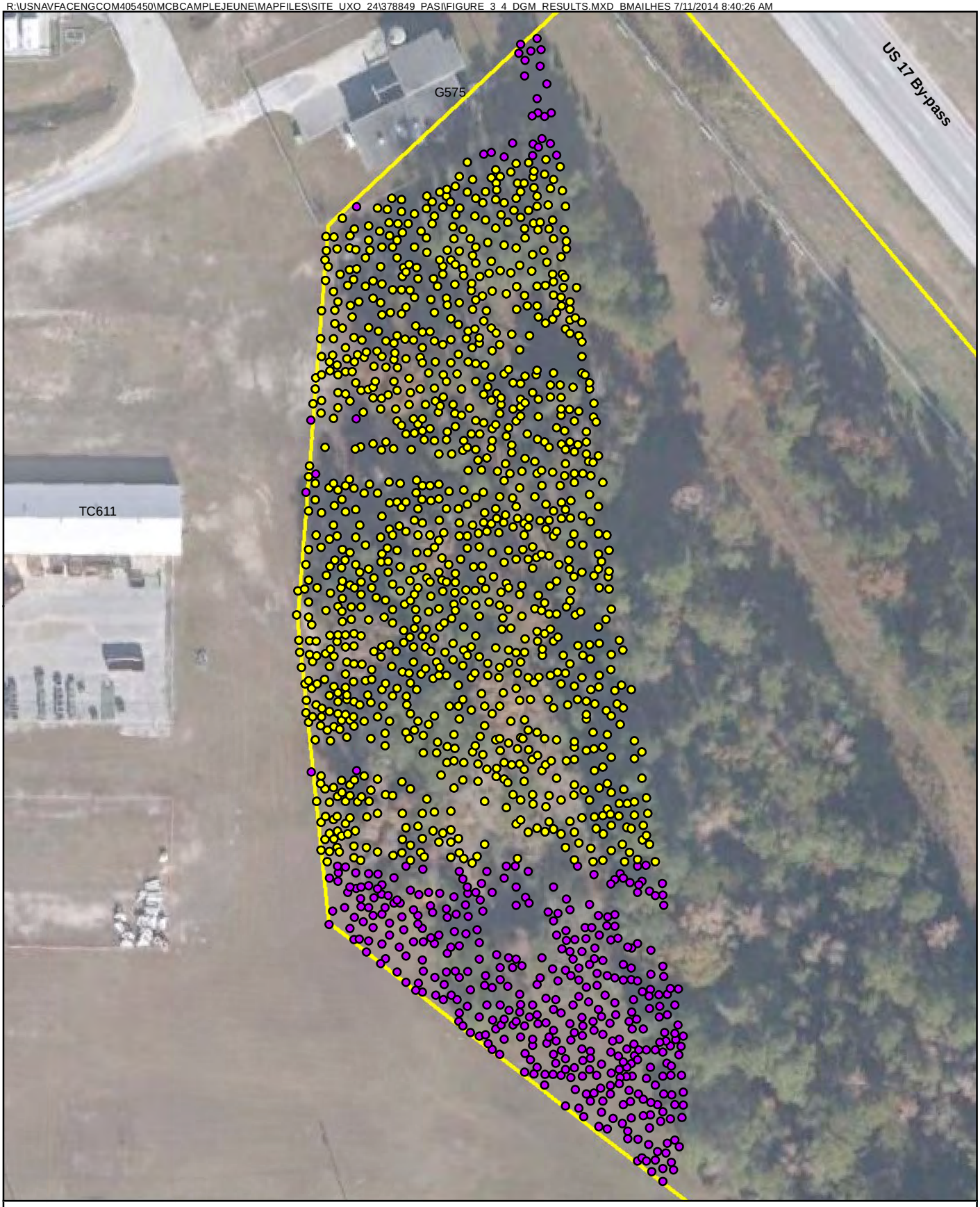
0 40 80 Feet

1 inch = 80 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 3-3
DGM Results
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL.



Legend

- Uninvestigated Anomaly
- Investigated Anomaly
- UXO-24 Boundary
- Jurisdictional Wetlands

N

0 40 80 Feet

1 inch = 80 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 3-4
Anomaly Map
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL.

SECTION 4

Field Investigation Results

This section provides a summary of the environmental sampling results and the MEC and MPPEH found to date.

4.1 Environmental Investigation Results

The CSA recommended additional investigation of pesticides and herbicides in site soils. Therefore, the following subsections summarize the soil analytical results from the pesticides and herbicides sampling conducted during the CSA and PA/SI.

The analytical results for surface and subsurface soil samples are provided in **Appendix C**. Following validation of the laboratory analytical data, soil samples were screened against the background threshold values (BTVs) for developed areas (combined soil type), North Carolina soil screening levels (NC SSLs), and Adjusted USEPA regional screening levels (RSLs) for industrial and residential soil (USEPA, 2011). The RSLs based on noncarcinogenic effects were divided by 10 to account for exposure to multiple constituents. The RSLs based on carcinogenic effects were used as presented in the USEPA RSL table.

4.1.1 Surface Soil

During the PA/SI, four surface soil samples were collected to evaluate the presence of pesticides and herbicides at locations where subsurface soil concentrations from CSA samples exceeded screening criteria. Surface soil samples were not collected from these locations during the CSA. Three chlorinated pesticides (4,4'-DDE, 4-4'-DDT, and dieldrin) were detected in surface soil samples. Dieldrin was the only pesticide detected at concentrations that exceeded both the BTV and NC SSL (**Table 4-1**). No herbicides were detected.

TABLE 4-1

Surface Soil Exceedances

Analyte	Frequency of Detection (No. detected / No. analyzed)	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Location of Maximum Concentration	Screening Criteria (µg/kg)		Frequency of Exceedances
Dieldrin	3/4	1.2 J	3.5 J	MR24-IS02	BTV	1.26	3
					NC SSL	0.81	3

µg/kg = micrograms per kilogram

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

4.1.2 Subsurface Soil

During the CSA, eight subsurface soil samples were collected and pesticides and herbicides were detected. Therefore, six subsurface soil samples were collected during the PA/SI to further evaluate the lateral concentrations of pesticides and herbicides.

Ten pesticides (4,4-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, aldrin, endosulfan II, endosulfan sulfate, endrin aldehyde, endrin ketone, and gamma-chlordane) were detected in subsurface soil samples. Dieldrin and 4,4-DDT were the only pesticides detected at concentrations that exceeded both the BTV and NC SSL. MCPP was the only herbicide detected that exceeded a regulatory criterion (RSL – Residential Adjusted). The maximum concentrations of the analytes that exceeded the BTV and NC SSL were detected in samples collected for the CSA. The results of the PA/SI samples surrounding these locations indicate that the soil samples with the highest concentrations appear to be isolated. **Table 4-2** summarizes the subsurface soil exceedances from the CSA and PA/SI.

TABLE 4-2
Subsurface Soil Exceedances

Analyte	Frequency of Detection (# detected / # analyzed)	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Location of Maximum Concentration	Screening Criteria (µg/kg)		Frequency of Exceedances
Dieldrin	6/14	0.82 J	18 J	IR37-SB06	BTV	1.61	4
					NC SSL	0.81	6
4,4-DDT	9 /14	0.23 J	430	IR37-SB05	BTV	4.5	3
					NC SSL	340	1
MCPP	1/14	5,100 J	10,000	IR37-SB04	RSL Residential Adjusted	6,100	1

4.2 Munitions Investigation Results

A total of 15 MEC items (**Table 4-3**) have been discovered within Site UXO-24 to date: one item during the Base EOD response in 2010 and 14 items during this PA/SI. During this PA/SI, 13 MEC items were found within a buried ammunition can at one location, and one item was found 13 feet to the southeast of the ammunition can. Two of the MEC items (unfired M430 40-mm high explosive dual purpose [HEDP] cartridges) had a larger maximum fragmentation distance than the contingency munition with the greatest fragmentation distance (MGFD), which was specified in the ESS (CH2M HILL, 2012) as a 25-mm M792 projectile, and were disposed by Base EOD. Demolition of the remaining MEC items was conducted by on-site controlled detonation.

There were no detections of explosives residues in the post detonation soil sample and no metals exceeded both the BTV and at least one other regulatory criterion.

A total of 3,786 MPPEH items (**Table 4-4**) have been discovered within Site UXO-24 to date: 2,368 items during the Base EOD response in 2010 and 1,418 items during this PA/SI. All of the MPPEH items were found in the wooded area located behind Building TC-611 with no discernible pattern and were predominantly comprised of SAA.

Following the 100 percent inspection and 100 percent re-inspection of MPPEH and its documentation as MDAS, the MDAS was placed in a 55-gallon drum and disposed of at a qualified smelter/recycler. A copy of the DD Form 1348-1A for this material can be found in **Appendix E**. SAA recovered during the intrusive investigation were disposed as hazardous waste and the disposal manifest is included in **Appendix E.**

The intrusive investigation area was also found to contain wide-spread cultural debris including wire, nails, wrenches, pipes, asphalt, automobile parts, and construction debris. Petroleum odors were observed in three excavations during the intrusive investigation, indicating that waste petroleum material may also have been disposed in addition to the other debris uncovered during the intrusive investigation (**Figure 4-1**). The cultural debris was not removed during the intrusive investigation.

TABLE 4-3
Summary of MEC Items Found

Item Class	Description	Quantity	Total
Projectiles	Projectile, 40-mm, HEDP, M430, Unfired	2	3
	Projectile, 40-mm, White Star Cluster, M58A1, Unfired	1	
Pyrotechnic, Screening, and marking Devices	Signal, Illumination, Ground, Cluster, M158, unexpended	1	1
Fuzes	Fuze, Grenade, M228, Impinged Primers, Unfired	11	11
	Total MEC Items		**15**

TABLE 4-4
Summary of MPPEH Items Found

Item Class	Description	Quantity	Total
Grenade	Grenade, Hand, Smoke, M18, expended	1	5
	Grenade, Hand, Practice, M69	3	
	Grenade, Hand, Smoke, M83	1	
Projectile	Projectile, 40-mm, Practice, M385A1, Inert	1	1
Cartridges	Cartridge, 40-mm, Practice, M385A1, Inert	1	3
	25-mm cartridge casing	1	
	Cartridge casing, 40-mm, practice, M212, unexpended	1	
Small Arms	Various small arms cartridge casings, unfired	1,402	3,777
	Expended cartridge cases of various calibers, small arms	10	
	5.56-mm blank round	2,207	
	9-mm AA12 round	33	
	9-mm AA21 rounds	5	
	5.56-mm tracer rounds	22	
	5.56-mm ball rounds	79	
	7.62-mm ball rounds	3	
	7.62-mm blank rounds	16	
	Total MPPEH Items		**3,786**

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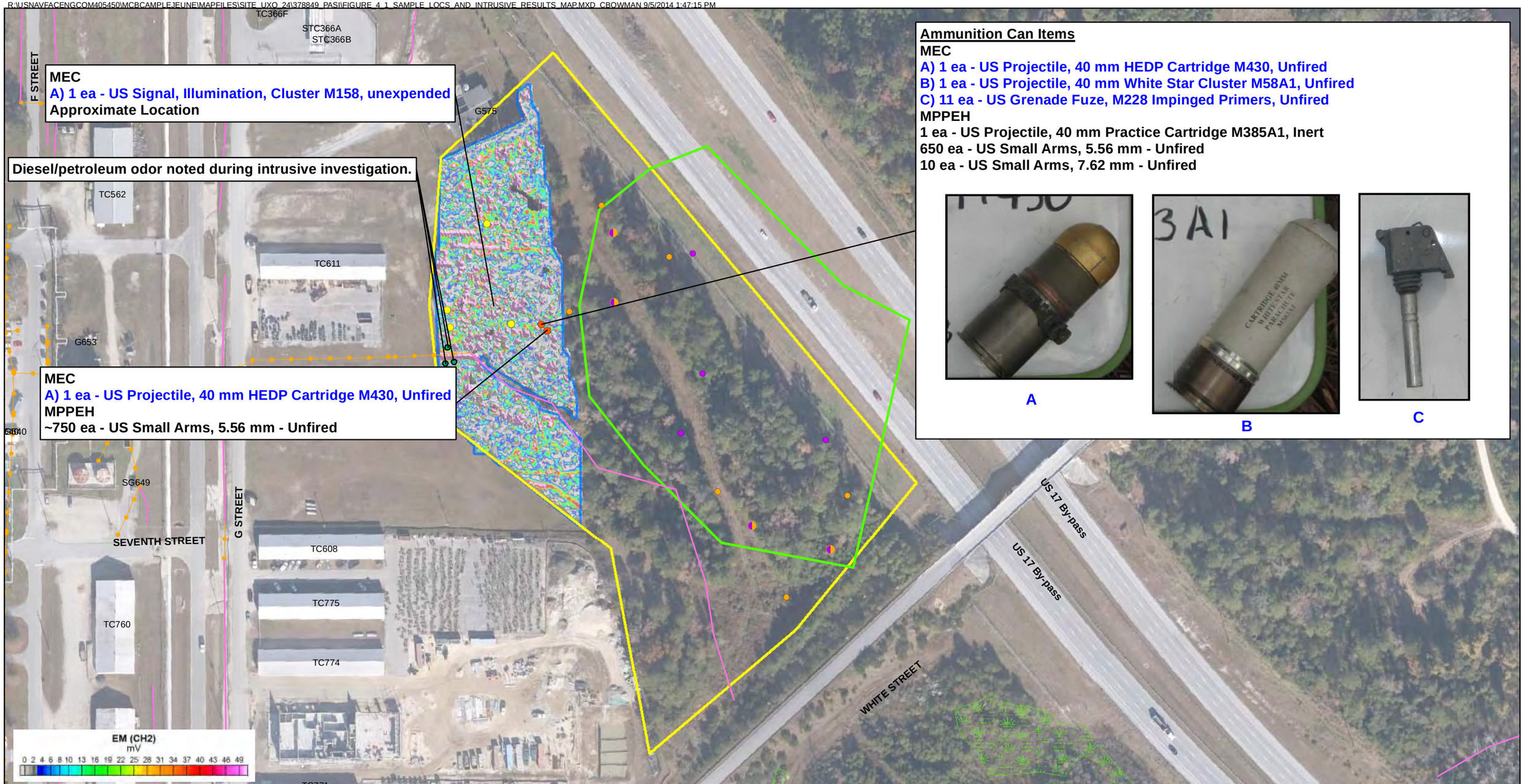

Legend

- MEC Item Locations
- MPPEH Item Locations
- PA/SI Subsurface Soil Sample Locations
- CSA Subsurface Soil Sample Locations
- CSA Subsurface and UXO-24 PA/SI Surface Soil Sample Locations
- Site 37 Boundary
- Jurisdictional Wetlands
- UXO-24 Boundary
- DGM Boundary
- Storm Sewer Open Drainage Line
- Storm Sewer Line

N

0 100 200 Feet

1 inch = 150 feet

Imagery: © 2013 Google
Modifications have been made.

Figure 4-1
UXO-24 Sample Locations and Intrusive Results
Site UXO-24 PA/SI
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL.

SECTION 5

Human Health Risk Evaluation

Human health risk evaluations were performed to assess the potential for unacceptable human health risks associated with exposure to soil and MEC/MPPEH.

5.1 Human Health Risk Screening

5.1.1 Sample Summary

The following is a summary of the soil samples included in the human health risk screening (HHRS):

- **Surface soil –** Four surface soil samples were collected at depths ranging from 0 to 1 feet bgs. The surface soil samples were analyzed for pesticides and herbicides.
- **Subsurface soil –** Fourteen subsurface soil samples were collected at depths ranging from 1 to 5 feet bgs. The subsurface soil samples were analyzed for pesticides and herbicides.
- **Post-detonation –** One composite surface soil sample was collected from 0 to 1 feet bgs from a controlled detonation area. The post-detonation surface soil sample was analyzed for explosives residues, perchlorate, and metals**.**

The eight subsurface soil samples collected by Osage in 2010 were also analyzed for VOCs, SVOCs, PCBs, and metals. However, the CSA (Osage, 2011) determined there were no potential unacceptable human health or ecological risks associated with these analytes, and therefore, they were not further evaluated in this report.

The data included in the HHRS were all validated, with the exception of the post-detonation surface soil sample. All data were evaluated to determine the reliability of the data for use in the HHRS. A review of the data identified the following criteria for usability:

- Estimated values flagged with a J qualifier were treated as detected concentrations.
- For duplicate samples, the maximum concentration between the two samples was used as the sample concentration.

5.1.2 Methodology

The HHRS was conducted in two steps using a risk ratio technique (Navy, 2000). COPCs identified in Step 1 were evaluated in Step 2. The two-step screening process is described in the following paragraphs.

5.1.2.1. Step 1

The maximum detected concentrations were compared to USEPA residential RSLs (USEPA, 2014). RSLs based on noncarcinogenic effects are based on a hazard quotient (HQ) of 0.1 to account for exposure to multiple constituents. RSLs based on carcinogenic endpoints are based on a carcinogenic risk of 1×10^{-6}. Residential soil RSLs are more conservative (that is, lower) than industrial soil RSLs and are therefore protective of all potential receptors (for example, military personnel, trespassers/visitors, residents, industrial workers, and construction workers). The soil data were also compared to the BTVs for combined soil types in developed areas (CH2M HILL, 2011c). The NC SSLs (NCDENR, 2014) are shown in the Step 1 soil screening tables; however, they were not used to identify COPCs in the HHRS. If the detected concentration exceeded the RSL and background concentration, the constituent was identified as a COPC and carried forward to Step 2.

In addition to comparing the detected concentrations to the screening levels, the detection limits for nondetected analytes were compared to the screening levels. Nondetected analytes with detection limits exceeding the screening level were not identified as COPCs to carry forward to Step 2, but are discussed in the following paragraph to evaluate the potential for underestimating the total risks.

5.1.2.2. Step 2

For analytes identified as COPCs in Step 1, a corresponding risk level was calculated using the following equation:

$$\textit{corresponding risk level} = \frac{\textit{concentration} \times \textit{acceptable risk level}}{\textit{RSL}}$$

The concentration is the maximum detected concentration (the same concentration that was used in Step 1). The acceptable risk level is 1 for noncarcinogens and 10^{-6} for carcinogens. RSLs for noncarcinogens are based on an HQ of 1, instead of the HQ of 0.1 used in Step 1.

Corresponding risk levels for each analyte within a medium were summed to calculate the cumulative corresponding carcinogenic risk (for carcinogens) and cumulative corresponding hazard index (for noncarcinogens). If the cumulative corresponding carcinogenic risk was greater than 5×10^{-5}, or the cumulative corresponding hazard index was greater than 0.5, the anayltes contributing to the values were retained as COPCs.

5.1.3 Surface Soil Risk Screening

Table F.1, **Appendix F,** presents the risk-based screening evaluation for surface soil. As shown in Table F.1, **Appendix F**, none of the detected constituents were identified as COPCs for evaluation in Step 2. Exposure to surface soil is not expected to result in any unacceptable human health risks.

5.1.4 Subsurface Soil Risk Screening

Tables F.2 and F.2a, **Appendix F**, present the risk-based screening and risk ratio evaluation for subsurface soil. As shown in Table F.2, **Appendix F**, MCPP exceeded the first step of the screening and was selected as a COPC for evaluation in Step 2. Based on Step 2 of the screening process, MCPP was eliminated as a COPC for subsurface soil. Exposure to subsurface soil is not expected to result in any unacceptable human health risks.

5.1.5 Controlled Detonation Soil Risk Screening

Table F.3, **Appendix F**, presents the risk-based screening evaluation for soil samples associated with the controlled detonation. As shown in Table F.3, **Appendix F**, no detected COPCs were retained for evaluation in Step 2. Exposure to soil within the area of the controlled detonation is not expected to result in any unacceptable human health risks.

5.1.6 Comparison of Detection Limits for Nondetected Analytes to Screening Levels

Constituents that were not detected in any of the samples within a medium were not carried through the risk assessment. However, the maximum detection limits for the nondetected constituents were compared to the COPC screening criteria. The following are the results:

Surface Soil

The detection limits of the nondetected analytes did not exceed the screening levels.

Subsurface Soil

One herbicide (pentachlorophenol) had a detection limit that exceeded the screening levels; however, the detection limits were generally within an order of magnitude of the screening level or NC SSL.

Controlled Detonation Surface Soil

Only thallium had a detection limit that exceeded screening levels; however, the detection limit was within an order of magnitude of the screening value and NC SSL.

5.2 Evaluation of Explosive Hazards

5.2.1 Methodology

An assessment of explosive hazards was conducted to evaluate the relative risks posed to human receptors by MEC and MPPEH potentially present at Site UXO-24. In order for MEC or MPPEH to result in a human injury or

casualty, there must exist the presence of MEC, a human receptor in contact with, or near the MEC, and an event to cause the functioning of the MEC.

In order to assess the likelihood of an explosive injury occurring, the following three types of factors were evaluated:

- Site Factors—These factors address site-specific features that impact the likelihood that a human receptor may come into contact with MEC/MPPEH, or be within close enough proximity to MEC/MPPEH to be injured during an explosive event. Site factors include physical features related to accessibility of the site.
- Human Factors—These factors address the likelihood that a human receptor would come into contact with or be in close proximity to MEC/MPPEH. Human factors include the number of people accessing the site, the frequency and duration of access, and the activities conducted while onsite.
- MEC Factors—These factors address whether an explosive event is likely to occur if contact is made with MEC or MPPEH and the severity of the explosive event if one were to occur. MEC factors include type, sensitivity, location, density, and depth.

5.2.2 Results

5.2.2.1. Site Factors

Site UXO-24 is located within the Camp Geiger area of MCIEAST-MCB CAMLEJ. The site is wooded with a drainage ditch and a utility corridor bisecting the site. Site access is restricted by the Base security fence along U.S. Highway 17 bypass, although the site is not separately enclosed and therefore potentially accessible from within the Base. Access to portions of the site is limited by heavy vegetation.

5.2.2.2. Human Factors

The entire area is accessible, but only certain portions of the site, mainly the utility corridor, are being accessed. Since most of the site is wooded, there is little human activity. Casual site visitors could enter or pass through the site; however, this would be limited because the site is located near the U.S. Highway 17 bypass and operational buildings. Some Base personnel work in Building TC-611 to the northwest of the site, but responsibilities of the workers do not require them to venture into the wooded area. Site workers could access portions of the site as they work on the drainage ditch or the utility lines.

Although Base personnel from the adjacent buildings may access the wooded areas and site workers could potentially encounter MEC/MPPEH during ground disturbing activities, the potential for human contact with MEC/MPPEH was significantly reduced by the 100 percent intrusive investigation conducted in the wooded area adjacent to Building TC-611 where the improper disposal of MEC/MPPEH was presumed to have occurred. Additionally, all MEC/MPPEH items were discovered beneath the surface, and are likely the result of the improper disposal in small hand dug excavations, resulting in a low probability of unintentionally finding an item on the surface.

5.2.2.3. Munitions and Explosives of Concern Factors

Two of the MEC items were high-explosive-filled, two were pyrotechnic marking devices, and eleven were practice-grenade fuzes. The M430 HE and the M58A1 projectiles were in the unarmed condition and the probability of them functioning by casual or limited intentional contact is low. Attempting to disassemble or placing the M430 HE and M58A1 projectiles in a fire may cause a detonation to occur. It should be noted that if the M430 HE projectiles were in the armed condition, then detonation by casual contact could occur, and there would be a high probability of death for anyone in close proximity. If someone was holding the M58A1 projectile when it functioned, serious burns may result. If a person encounters an unfired intact signal illumination ground M158 and fires the device, serious injury would likely to occur to any person who the device may be pointed at, especially in close proximity. The M228 fuzes are also not likely to function, except by very aggressive contact or placing them in a fire. If someone was holding a fuze when it functioned, minor to moderate burns and blast wounds may occur.

5.3 Summary

The results of the HHRS indicate that there are no unacceptable risks to human health associated with exposure to surface and subsurface soil. The results of the explosives hazard assessment indicate that the risks associated with exposure to MEC/MPPEH are low due to the low probability of encountering MEC/MPPEH combined with the low likelihood of an unintended detonation. There is a low probability of encountering MEC/MPPEH because, although Base personnel from the adjacent buildings may access the wooded areas, all MEC/MPPEH items were discovered below ground surface and were judged to result from improper and unauthorized disposal in small hand dug excavations. Furthermore, the intrusive investigation of the area adjacent to Building TC-611 reduced the likelihood of encountering MEC/MPPEH. If MEC/MPPEH were encountered and were consistent with the types previously discovered, the probability of an unintentional detonation by casual contact or limited intentional contact is low. Even more aggressive contact, such as striking the item or throwing the item would not likely cause it to function. However, putting the item in a fire or attempting to disassemble the item would likely cause it to function as designed, which could result in serious injury or death.

SECTION 6

Ecological Risk Screening

An ecological risk screening (ERS) was conducted to evaluate the potential risks associated with exposure to site media by potential current and future receptor populations.

6.1 Sample Summary

Data evaluated in the ERS are outlined in Section 5.1.1. The data were evaluated to determine the reliability of the data for use in the ERS. A review of the data identified the following criteria for usability:

- Estimated values flagged with a J qualifier were treated as detected concentrations.
- Values flagged with a U qualifier (not detected), were not evaluated in the ERS since nondetected constituents are not expected to pose a risk to ecological receptors.
- For duplicate samples, the maximum concentration between the two samples was used as the sample concentration.
- Macronutrients in soil (calcium, magnesium, potassium, and sodium) were not evaluated since they are not considered to result in any unacceptable ecological risk.

6.2 Screening Methodology

For each medium (surface soil, subsurface soil, and post-detonation soil), maximum and arithmetic mean (when able to be calculated) concentrations of chemicals (that is, exposure concentrations) were compared to ecological screening values (ESVs) intended to be protective of ecological receptors. HQs were calculated by dividing the exposure concentrations by the ESVs. When an ESV value was not available for a detected analyte, a supplemental screening value from published literature was used, as available. The ecological checklist in **Appendix G** identifies the terrestrial habitats onsite.

The USEPA ecological soil screening levels (EcoSSL) (USEPA, 2011) were preferentially selected over Region 4 values (USEPA, 2001). When no EcoSSL was available for a constituent, the Region 4 value was selected.

Maximum concentrations of metals in surface and subsurface soil were also compared to the surface and subsurface soil BTVs for developed areas (combined soil types) (CH2M HILL, 2011c). The BTV represents a 95/95 upper tolerance limit, which is an upperbound (with 95 percent confidence) of the background 95th percentile. If the maximum concentration was less than the BTV, the analyte was considered to be consistent with background and not a site-related contaminant.

6.3 Results

The ERS screening results for surface soil, subsurface, and the post-detonation soil are summarized below and in **Appendix H**, Tables H-1 through H-3, respectively.

6.3.1 Surface Soil

Of the detected analytes with available ESVs or supplemental screening values, total DDT (sum of 4,4'-dichlorodiphenyldichloroethane (DDD), 4,4'-DDE, and 4,4'-DDT in each sample) had a maximum-based HQ greater than one (HQ = 1.52; Table H-1 in **Appendix H**). However, 4,4'-DDD was not detected and both 4,4-DDE and 4,4'-DDT concentrations were consistent with background. As a result, the analytes are not expected to pose significant risk to ecological receptors.

6.3.2 Subsurface Soil

Of the detected analytes with available ESVs or supplemental screening values, total DDT and dieldrin had maximum-based HQs greater than one (Table H-2 in **Appendix H**).

Of the 14 subsurface samples collected between 2010 and 2013, only two samples contained total DDT at concentrations greater than the ESV. Samples collected from IR37-SB05 and IR37-SB02 were collected from a depth of 1 to 3 feet in 2010 and contained total DDT at concentrations of 619 µg/kg and 32 µg/kg, respectively. None of the subsurface soil samples collected in 2013 contained total DDT at concentrations greater than the ESV (21 µg/kg). Only 2 of 14 subsurface soil samples exceeded the ESV; therefore, the extent of elevated total DDT is considered limited. Additionally, the ESV is based on birds, and because the concentrations are located deeper than 1 foot bgs, it is unlikely that birds would be exposed to the soils. Consequently, risk from total DDT is not likely to pose a significant risk to ecological receptors.

Dieldrin had a maximum-based HQ greater than one (HQ = 3.30). While the maximum concentration (collected in 2010 from location IR37-SB06) exceeds the background value, the mean HQ is less than one (HQ = 0.67). Additionally, because surface soil and subsurface soil samples collected in 2013 all had concentrations less than the ESV and the sample collected from location IR37-SB06 was from a depth of 1 to 3 feet bgs, dieldrin is not likely to pose significant risk to ecological receptors.

MCPP was detected in 3 of 8 samples collected in 2010, but does not have an ESV or supplemental screening value. The samples in 2010 were all collected at depths from 1 to 3 feet bgs. MCPP was not detected in any of the surface soil or subsurface soil samples collected in 2013. Based on a review of several sources (USEPA, 2010; EXTOXNET, 1996; Kegley et al., 2010), it is not clear that the detected concentrations would pose a significant risk to ecological receptors. Additionally, because MCPP was only detected in a small number of samples and the spatial extent is limited, risk is considered low.

6.3.3 Post-Detonation Soil Sample

Of the detected analytes with available ESVs, aluminum and iron had maximum-based HQs greater than one (HQ = 27 and HQ = 8.35, respectively). However, both chemicals were consistent with the surface soil BTV (Table H-3 of **Appendix H**). As a result, the analytes are not expected to pose significant risk to ecological receptors.

6.4 Summary

Constituents in surface and subsurface soil are not expected to pose a significant risk to ecological receptor populations. In addition, none of the constituents from the detonation of the MEC are expected to pose a significant risk to ecological receptors.

SECTION 7

Conclusions and Recommendations

This section presents conclusions and provides recommendations for Site UXO-24 and Site 37.

7.1 Conclusions

The following are conclusions based on the findings from the investigations conducted to date:

- Potential unacceptable ecological risks were previously identified from exposure to pesticides and herbicides in soil in the CSA. Based on the additional data collected during this PA/SI, dieldrin was the only pesticide detected above screening and background levels and the risk screenings results indicated that exposure to soil does not pose unacceptable risks to human or ecological receptors.
- Wide-spread debris was encountered throughout the approximately 2-acre area of the intrusive investigation, confirming that the site is a former waste disposal area. Petroleum odors were observed in 3 locations, indicating that waste petroleum material may also have been disposed in addition to the other debris.
- The MEC and MPPEH items found are not reflective of historical site usage or range activities since MEC/ MPPEH were never used at the site. However, improper and unauthorized disposal of MEC/MPPEH in small hand dug excavations has been documented in the wooded area adjacent to Building TC-611.
- The probability of contact with MEC and MPPEH is low, primarily because the items found were located beneath the ground surface. Furthermore, the potential for human contact with MEC/MPPEH was significantly reduced by the intrusive investigation of the area adjacent to Building TC-611. If MEC/MPPEH were encountered and were consistent with the types previously discovered, the probability of an unintentional detonation by casual contact or limited intentional contact is low. Even more aggressive contact, such as striking the item or throwing the item would not likely cause it to function. However, putting the item in a fire or attempting to disassemble the item would likely cause it to function as designed, which could result in serious injury or death.

7.2 Recommendations

Based on the conclusions, an Expanded Site Investigation is recommended to delineate the nature and extent of the waste disposal area. Based on the findings, the path forward for the site under the IRP and MMRP will be determined. An ESS Amendment will be needed to conduct the additional investigation activities based on the MEC item found that was larger than the contingency MGFD. The ESS Amendment should include procedures for construction support for any drainage or utility maintenance.

SECTION 8

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Appendix A
Archival Records Search Report

Archival Records Search Report
UXO-24 Camp Geiger Burial Area

Marine Corps Installations East—Marine Corps Base Camp Lejeune
North Carolina

Contract Task Order 014

October 2014

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Mid-Atlantic

Under the

NAVFAC CLEAN 1000 Program
Contract N62470-08-D-1000

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2.2.2 Camp Geiger Operational History 2
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A-16 Camp Geiger 1951
A-17 Camp Geiger 1974

Acronyms and Abbreviations

CSA	Confirmatory Site Assessment
EOD	Explosive Ordnance Disposal
ERS	Ecological Risk Screening
HHRS	Human Health Risk Screening
GySgt	Gunnery Sergeant
IR	Installation Restoration
Lt	Lieutenant
MC	munitions constituents
MCIEAST-MCB CAMLEJ	Marine Corps Installations East–Marine Corps Base Camp Lejeune
MCPP	2-(2-Methyl-4-chlorophenoxy) propionic acid
MEC	munitions and explosives of concern
mm	millimeter(s)
Osage	Osage of Virginia
PA/SI	preliminary assessment/site inspection
PCB	polychlorinated biphenyl
SVOC	semivolatile organic compound
VOC	volatile organic compound
WWII	World War II

1 Introduction

An archival records review was completed in support of a Preliminary Assessment and Site Inspection (PA/SI) at Site UXO-24, Camp Geiger Burial Area. Site UXO-24 encompasses approximately 9 acres in Camp Geiger, located near Marine Corps Air Station New River (**Figure A-1**), which is a part of Marine Corps Installations East-Marine Corps Base Camp Lejeune (MCIEAST–MCB CAMLEJ). The objectives of the PA/SI are to:

- Evaluate the potential presence of munitions and explosives of concern (MEC) and material potentially presenting an explosive hazard (MPPEH).
- Evaluate the potential for unacceptable risk from pesticides and herbicides in soil.

This archival records search report has been prepared to provide a narrative of the historical activities at Site UXO-24 that may have resulted in environmental contamination from MEC or munitions constituents (MC).

1.1 Objective

The archival records search consisted of an investigative review of existing information about the site and its surrounding area, with an emphasis on obtaining information from personnel and historical resources that might indicate a potentially hazardous release to the environment.

1.2 Scope

The scope of this archive search includes:

- A review of existing information about the site (including maps, drawings, and reports, and interviews with MCIEAST-MCB CAMLEJ personnel)
- Collection of additional information about the site

A complete list of the resources identified and investigated for this report is provided in **Attachment 1**.

2 Site Information

2.1 Facility Information

MCIEAST–MCB CAMLEJ is located on the Atlantic coast in Onslow County, North Carolina. MCIEAST–MCB CAMLEJ occupies 153,000 acres, including more than 450 miles of roads, approximately 6,800 buildings and facilities, and 14 miles of beach on the Atlantic Ocean for amphibious training. Approximately 14,000 acres of land have been developed for administrative, maintenance, logistics, and personnel support facilities. Originally established in 1941, the Base is home to several tenant commands, including the II Marine Expeditionary Force, 2nd Marine Division, and 2nd Marine Logistics Group, two Navy commands, one Coast Guard command, and several Marine Corps formal schools. MCIEAST–MCB CAMLEJ supports a total population of approximately 170,000 people, including active-duty military and dependents, retirees, and civilian employees.

2.2 Ownership and Operational History

2.2.1 Ownership History

The history of the land now occupied by MCIEAST–MCB CAMLEJ is documented primarily through land records and maps. Following the start of World War II (WWII), the War Department began purchasing tracts of land in 1941 from local residents to meet the need for an East Coast amphibious training facility. Before occupation by the Marine Corps, the land had been occupied by white and African-American communities and farms since the Colonial era. The land contained plantation houses, cabins, farm buildings, tobacco barns, stores, and various cemeteries (Global Security, 2014).

The initial land transferred to the government was acquired in 14 separate transactions between April and October 1941 and totaled 173.8 square miles or 111,155 acres, consisting of 85,155 land acres and about 26,000 acres under water (Loftfield, 1981; Louis Berger Group, 2002). The individual tracts of land were grouped into various “areas” for consolidation.

2.2.2 Camp Geiger Operational History

Camp Geiger contains the School of Infantry (formerly known as Infantry Training Regiment), which is composed of two training battalions - the Infantry Training Battalion and the Marine Combat Training Battalion. Marines are trained in the following military occupational specialties: marine rifleman, machine gunner, mortarman, assaultman, or antitank guided missileman. (Louis Berger Group, 2002)

The Camp Geiger area was originally used during WWII to house the 1st Marine Division. From 1941 to 1942, the area was known as the Tent Camps and consisted of approximately 2,000 tents, located in the area adjacent to Site UXO-24. The Tent Camps consisted of 6-man canvas tents, 20 feet square, arranged in blocks on a grid-like street pattern, and 14-man “huts” made from sheets of compressed cellulose called Homosote (Global Security, 2014). By the end of WWII, corrugated steel Quonset huts replaced most of the tents, but the Homosote huts remained until the early 1950s when all huts were removed (Global Security, 2014).

2.2.3 Site UXO-24 Operational History

Site UXO-24 covers a total area of approximately 9 acres of mostly wooded land east of G Street within Camp Geiger (**Figure A-1**). Site UXO-24 also includes 4 acres of Installation Restoration (IR) Site 37, the former Camp Geiger Surface Dump.

Site Description and History

Site UXO-24 is in a wooded area behind warehouse buildings and a motor pool on the eastern edge of Camp Geiger. The boundaries for Site UXO-24 and IR Site 37 overlap (**Figure A-2**). Buried ammunitions have been encountered at Site UXO-24 in 2010. Currently the area is divided by a power line easement. IR Site 37 is the Camp Geiger Surface Area Dump, which operated between 1950 and 1951. Additional information can be found in the discussion of IR Site 37 below.

The current nearby buildings, listed in order from north to south, are: TC-569 (demolished), TC-611, TC-608, TC-775, TC-774, TC-771, and TC-773 (**Figure A-1**). MCIEAST–MCB CAMLEJ existing conditions

maps, dated between 1944 and 2005, were reviewed. Maps of Camp Geiger were not available for all years in this range; however, the maps that were available provided a timeline of building construction and removal. Legends associated with each map provided details on what each building was used for. **Table A-1** summarizes the addition, change in use, or removal of buildings surrounding Site UXO-24 as shown on the historical maps, as well as the map year, purpose of the building, and a reference to the appropriate figure provided in this report.

Based on the review of the MCIEAST–MCB CAMLEJ existing conditions maps, many construction changes took place in the area surrounding Site UXO-24 between 1944 and 2005. **Figures A-3** through **A-14** shows these changes in construction around Site UXO-24. Based on these maps, the only buildings that were constructed inside of the Site UXO-24 boundary were Buildings TC-605, TC-623, and S-TC-624, which were a carpenter shop, paint shop, and lumber rack, respectively. These buildings were located in the northern portion of the site boundary. The maps show that the paint shop and lumber rack were removed before 1959, and the carpenter shop was removed before 1963.

Site UXO-24 and surrounding areas are visible on aerial photographs from 1948 and 1974. The photos from 1948 and 1951 (**Figure A-15 and A-16**) shows the area of Site UXO-24 as mostly wooded, with trails cutting through the trees. It also appears that there is a cleared or partially cleared area just outside the eastern portion of the site. The 1974 photograph (**Figure A-17**) shows a clearing within the wooded area of Site UXO-24, also on the east portion of the site.

Historical Range Review

A review of historical range overlay maps (Plates 1-22) from the *Draft Range Identification and Preliminary Range Assessment* (United States Army Corps of Engineers, 2000) indicated that no ranges have existed near Site UXO-24.

Ordnance Disposal behind Building TC-611

On March 19, 2010, two ammunition cans containing live small arms ammunition were discovered on the ground surface adjacent to a small hand-dug excavation located behind building TC-611 (**Figure A-1**). Following the discovery of the excavation and ammunition, the Base EOD unit conducted a limited surface sweep of the area, and found several small hand-dug excavations containing unexpended munitions, including:

- Grenade, Hand: Smoke, M18
- Signal, Illumination, Ground: Cluster, Red Star, M158
- Cartridge, 40-MM, Practice, M781.

A subsequent limited search of the remaining wooded area located the following items:

- (2,207) 5.56 millimeter (mm) blank rounds
- (33) 9 mm AA12 rounds
- (5) 9 mm AA21 rounds
- (22) 5.56 mm tracer rounds
- (79) 5.56 mm ball rounds
- (3) 7.62 mm ball rounds
- (16) 7.62 mm blank rounds
- 25 mm casing

- AK74 blank rounds (quantity unspecified)

Based upon the discovery of material potentially presenting an explosive hazard (MPPEH) and small arms ammunition at the site, the site was identified by the Base for investigation under MMRP (Commanding Officer, 2010).

IR Site 37

IR Site 37 is the Camp Geiger Surface Area Dump. **Figure A-2** shows the boundary of IR Site 37 and Site UXO-24. The surface area dump was used between 1950 and 1951 for the disposal of wastes such as motor parts, garbage, and wood (Osage of Virginia [Osage], 2011). The surface area dump covers approximately 4 acres and consists of wooded area divided by a power line easement. The northeast border of the site extends into the U.S. Highway 17 bypass.

IR Site 37 was initially identified in the Base's Initial Assessment Study (Water and Air Research Inc., 1983). Based on the initial lack of evidence of hazardous substances present at the site, further assessment was not recommended (Osage, 2010). In March 2010, Osage conducted confirmatory sampling at the site to validate the original "no further assessment" recommendation for the site. During the investigation, surface debris that included rubber tires, tiles, and scrap steel was observed. The investigation involved the collection of eight subsurface soil and three groundwater samples, and all samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), target analyte list metals, pesticides, polychlorinated biphenyls (PCBs), and herbicides.

The sampling results indicated that pesticides, metals, and herbicides were present in subsurface soils across the site. Two pesticides (4,4'-DDT and dieldrin) and two metals (chromium and iron) exceeded the North Carolina Hazardous Waste Section Soil Screening Levels, and the metals exceeded Base background levels. One herbicide 2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP) and three additional metals (aluminum, chromium, and iron) exceeded the U.S. Environmental Protection Agency's Adjusted Residential Soil Regional Screening Levels, and these metals also exceeded the Base background levels. PCBs were the only constituent group not detected in any of the subsurface soil samples. VOCs and SVOCs were detected, although no concentrations exceeded screening criteria. In groundwater samples, iron was the only target analyte to be detected above Base background and North Carolina groundwater water quality standards. SVOCs, pesticides, herbicides, and PCBs were not detected in any groundwater samples. One VOC (p-isopropyltoluene) was detected at a concentration of 5.2 micrograms per liter; no criteria screening are available.

A Human Health Risk Screening (HHRS) and an Ecological Risk Screening (ERS) were conducted using data from the IR Site 37 Confirmatory Site Assessment (CSA). The ERS identified 4,4'-dichlorodiphenyldichloroethene (DDE), 4,4'-DDT, dieldrin, and MCPP as contaminants of potential concern (COPCs) in subsurface soil. No COPCs were identified for groundwater. The HHRS concluded that there were no potential unacceptable human health risks from exposure to subsurface soil or groundwater.

The CSA investigation report recommended that IR Site 37 remain closed and that ecological risks be further evaluated concurrently with the investigation of Site UXO-24, including assessment of pesticides and herbicides in surface and subsurface soils.

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TABLE A-1
Summary of Buildings and Structures near Site UXO-24

Existing Conditions Map	Buildings Appearing on Maps*	Building Use	Figure
1944	TC-470 TC-471 TC-472 TC-770 TC-771 Sewage Pumping Station No. 8	Motor Storage Shed Motor Storage shed Incinerator Open shed warehouse Open shed warehouse	Figure A-3
1947	TC-473 TC-474 TC-569 TC-572 TC-608 TC-609 TC-611 TC-773 TC-774 TC-775 TC-606	All warehouses, except for TC-606 (100,000 gallon elevated water tank)	Figure A-4
1948	TC-861 TC-862 TC-863 TC-864 TC-952	All warehouses	Figure A-5
1951	TC-470 (change in use) TC-471 (change in use)	Warehouse Carpenter shop	Figure A-6
1953	TC-610 TC-865	Toilet Toilet	Figure A-7

TABLE A-1
Summary of Buildings and Structures near Site UXO-24

Existing Conditions Map	Buildings Appearing on Maps*	Building Use	Figure
1954	TC-495 TC-609 (change in use)	Quonset Hut Dispatcher office and ordnance shop radio shop	Figure A-8
1957	TC-605 S-TC-620 TC-622 TC-623 S-TC-624 TC-474 (change in use) TC-609 (change in use) TC-862 (change in use) TC-864 (change in use) TC-495 (removed)	Carpenter Shop Grease Rack Paint Locker Paint Shop Lumber Rack Shop Shop Shop Shop	Figure A-9
1959	TC-952 (change in use) TC-623 (removed) S-TC-624 (removed) TC-472 (removed)	Motor Transport Warehouse	Figure A-10
1963	S-TC-625 S-TC-626 S-TC-776 S-TC-868 TC-771 (change in use) TC-773 (change in use) TC-774 (change in use) TC-862 (change in use) TC-864 (change in use) TC 605 (removed)	Shed Shed Dispatcher's shed Grease rack Combat vehicle maintenance facility Combat vehicle maintenance facility Combat vehicle maintenance facility Combat vehicle maintenance facility Combat vehicle maintenance facility	Figure A-11

TABLE A-1
Summary of Buildings and Structures near Site UXO-24

Existing Conditions Map	Buildings Appearing on Maps*	Building Use	Figure
1979	TC-98 S-TC-777 TC-470 (change in use) TC-471 (change in use) TC-473 (change in use) TC-474 (change in use) TC-569 (change in use) TC-572 (change in use) TC-608 (change in use) TC-771 (change in use) TC-773 (change in use) TC-774 (change in use) TC-775 (change in use) TC-952 (change in use) S-TC-625 (removed) S-TC-626 (removed)	Storage Grease Rack Other General Warehouse General Warehouse General Warehouse Other Other Other PW/Maintenance Shop Auto Vehicle Maintenance Facility Other Other Combat vehicle maintenance facility	Figure A-12
1984	S-TC-346 S-TC-865 S-TC-872 S-TC-873 S-TC-874 TC-863 (removed)	Not available Not available Not available Not available Not available	Figure A-13
2005	S-TC-768 S-TC-785 S-TC-859 S-TC-868 TC-610 (removed) TC-609 (removed) TC-606 (removed) TC-770 (removed) S-777 (removed) TC-862 (removed) TC-98 (removed) S-TC-346 (removed)	Not available Not available Not available Not available	Figure A-14

*Buildings are only listed the year they appear, unless there was a change in use or the building was removed.

Figures

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_1_CAMP_GEIGER_BURIAL_AREA.MXD BMAILHES 9/5/2014 9:40:48 AM

Legend

UXO-24 Boundary

Installation Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-1
Camp Geiger Burial Area Site Map
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

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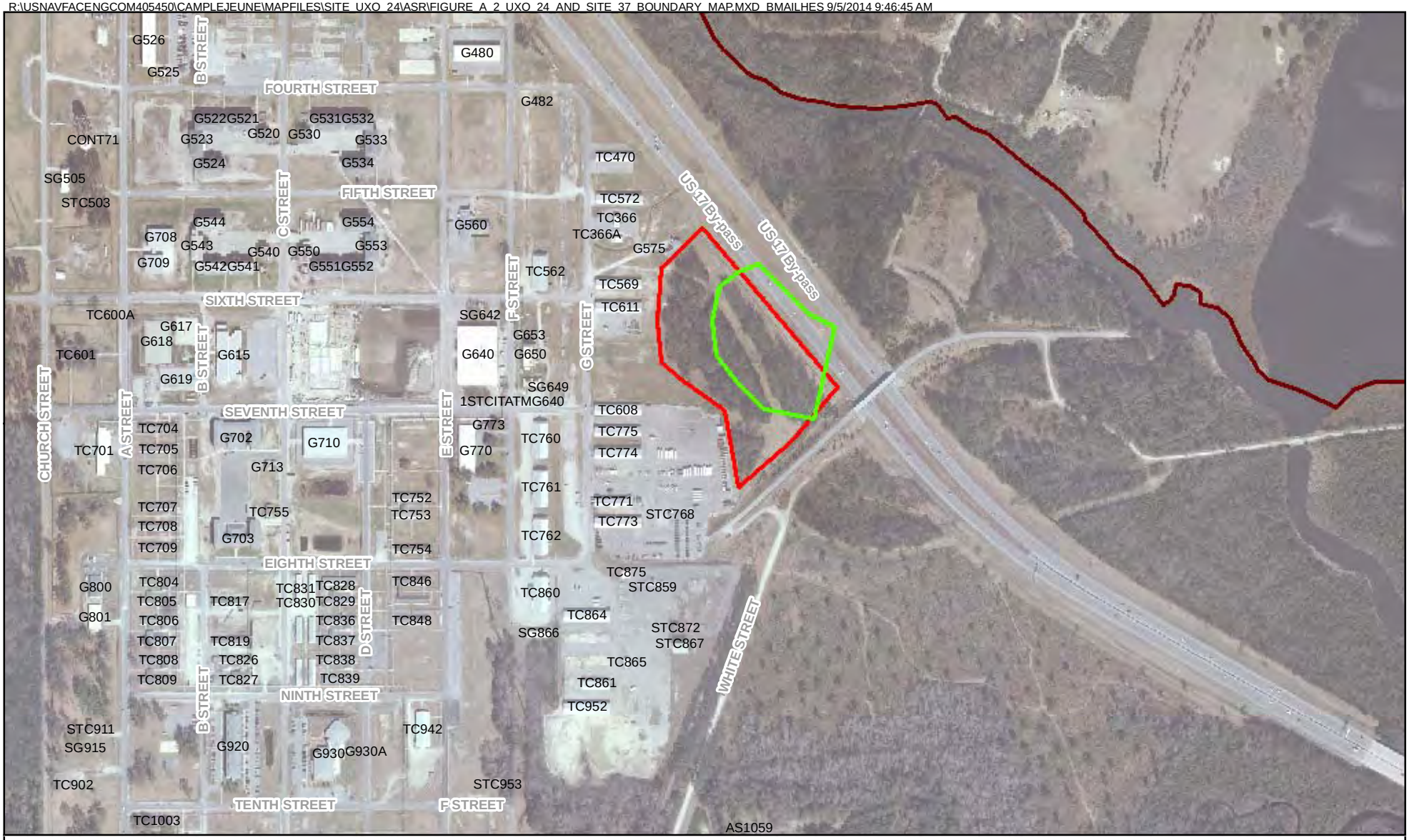

Legend

- Site 37 Boundary
- UXO-24 Boundary
- Installation Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-2
UXO 24 and IR Site 37 Boundaries Map
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

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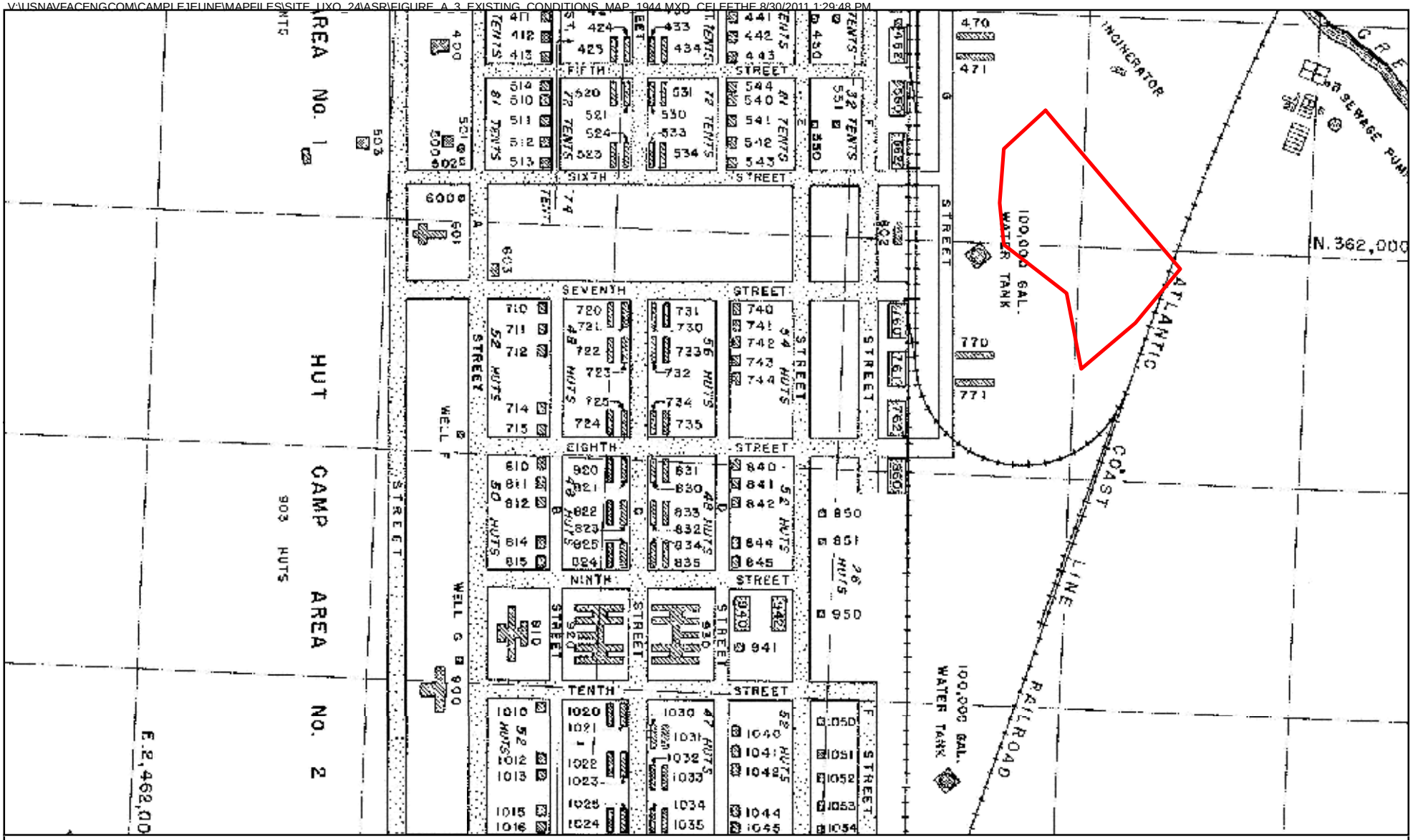

Legend

UXO-24 Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-3
Existing Conditions Map 1944
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

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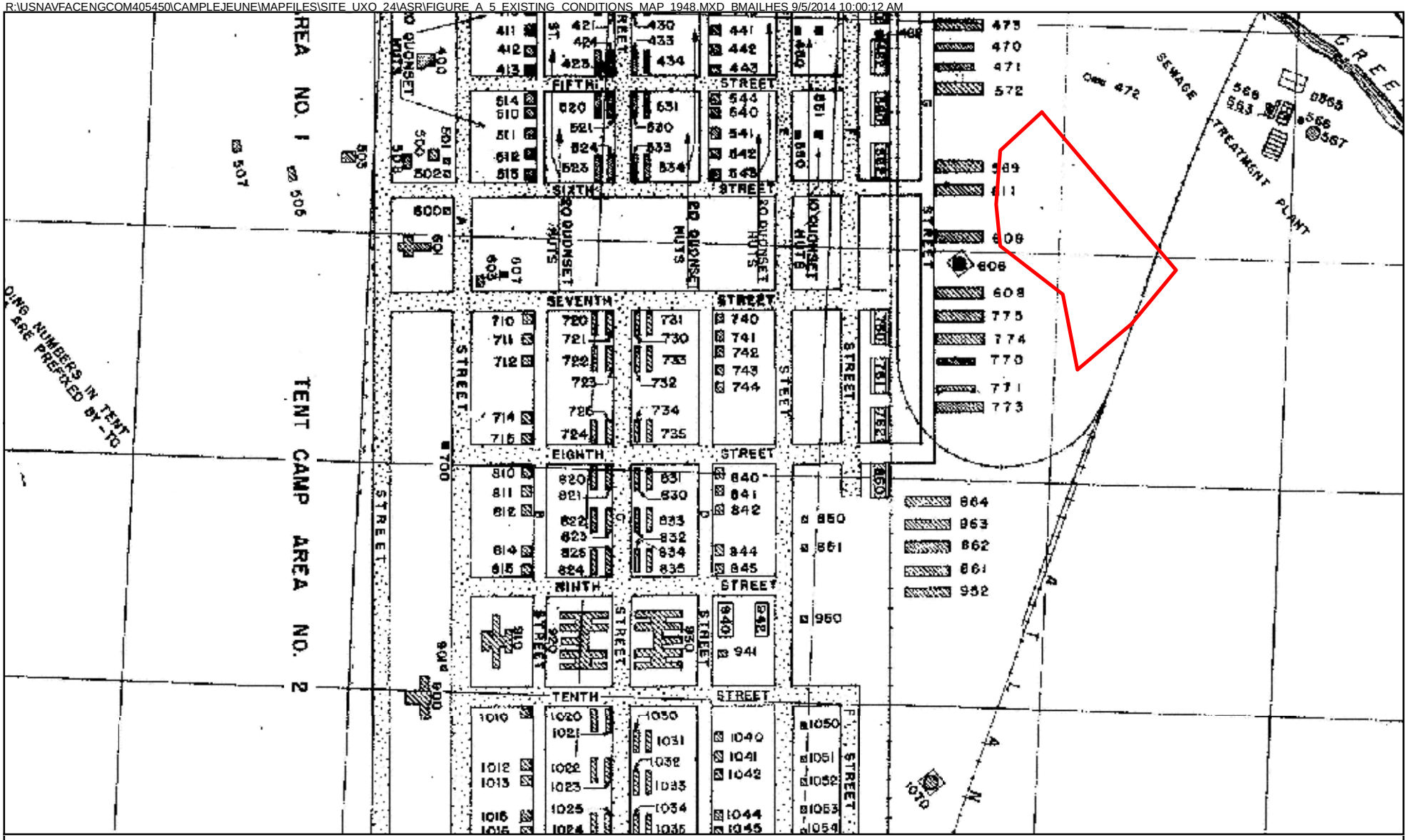

Legend

UXO-24 Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-5
Existing Conditions Map 1948
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

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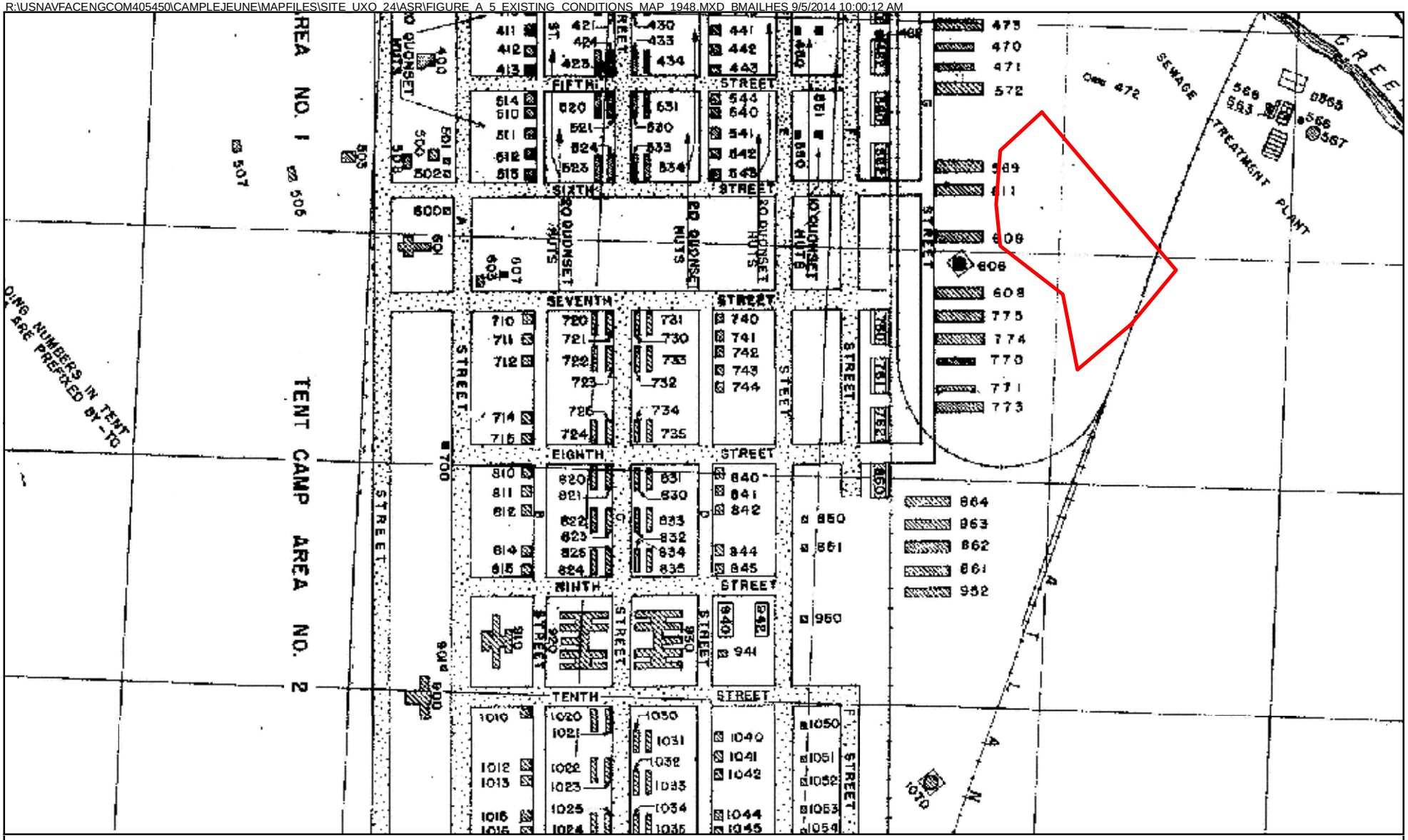

Legend

UXO-24 Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-5
Existing Conditions Map 1948
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

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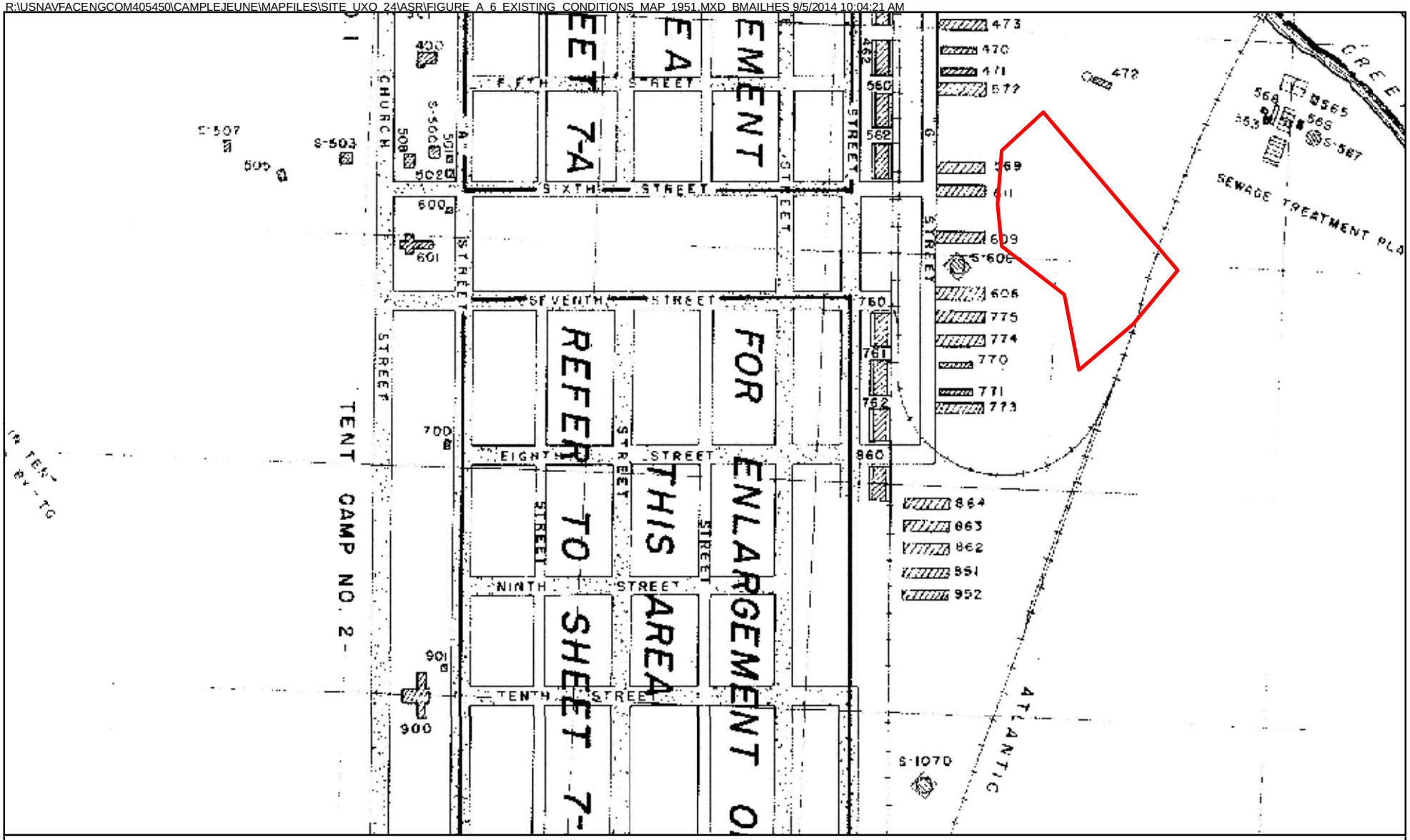


Legend

UXO-24 Boundary

N

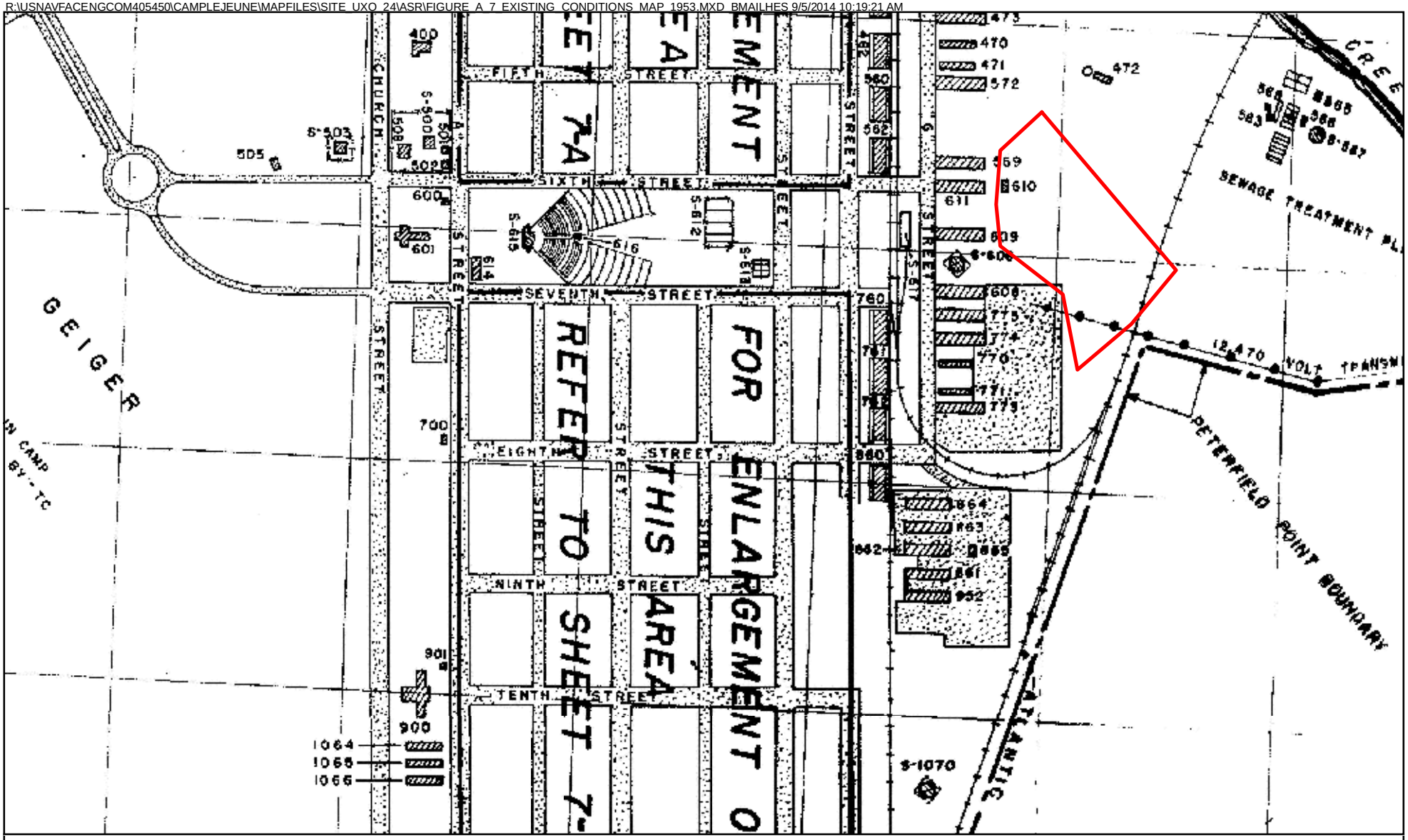
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-6
Existing Conditions Map 1951
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_7_EXISTING_CONDITIONS_MAP_1953.MXD BMAILHES 9/5/2014 10:19:21 AM



Legend

UXO-24 Boundary

N

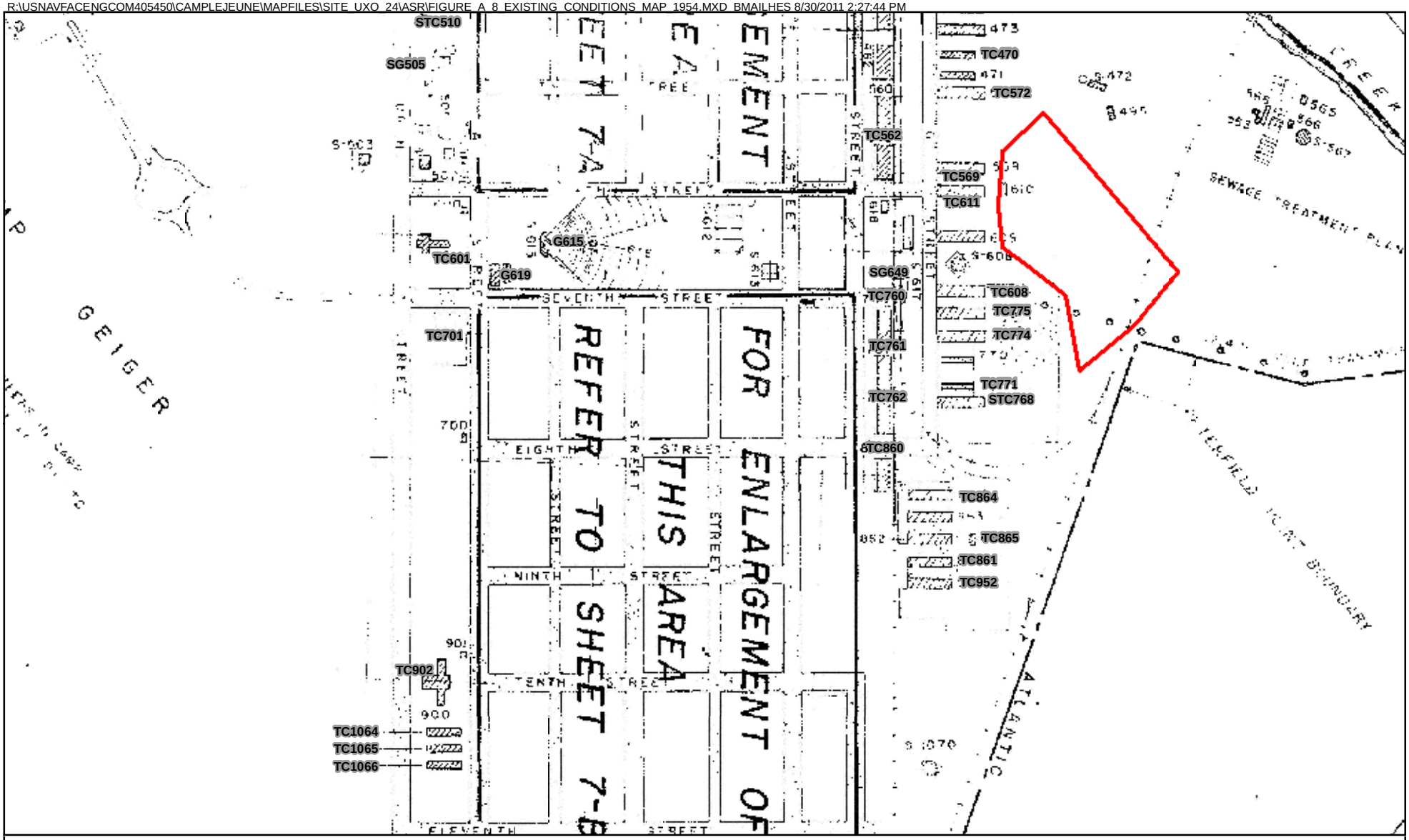
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-7
Existing Conditions Map 1953
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_8_EXISTING_CONDITIONS_MAP_1954.MXD BMAILHES 8/30/2011 2:27:44 PM



Legend

UXO-24 Boundary

N

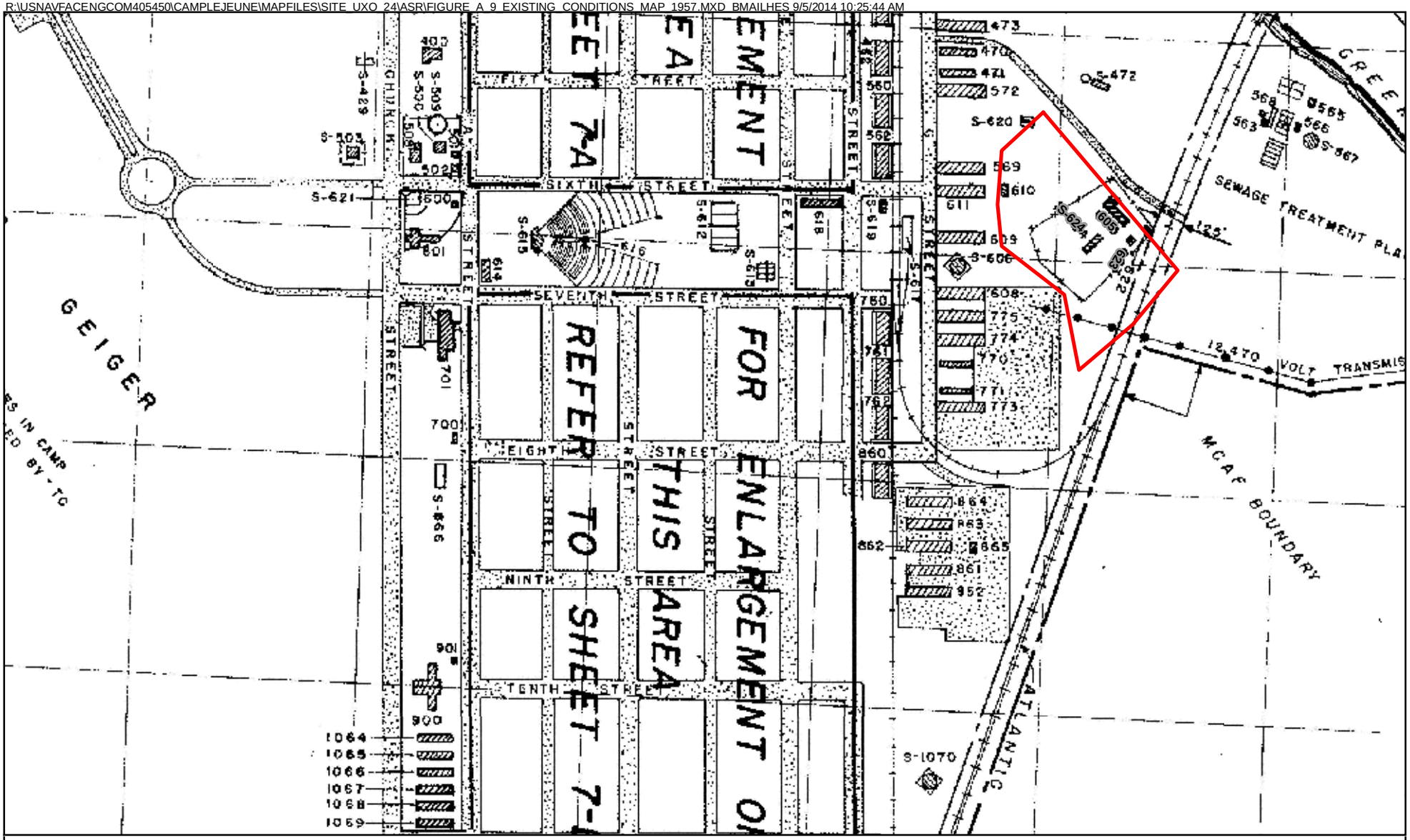
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-8
Existing Conditions Map 1954
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_9_EXISTING_CONDITIONS_MAP_1957.MXD BMAILHES 9/5/2014 10:25:44 AM



Legend

UXO-24 Boundary

N

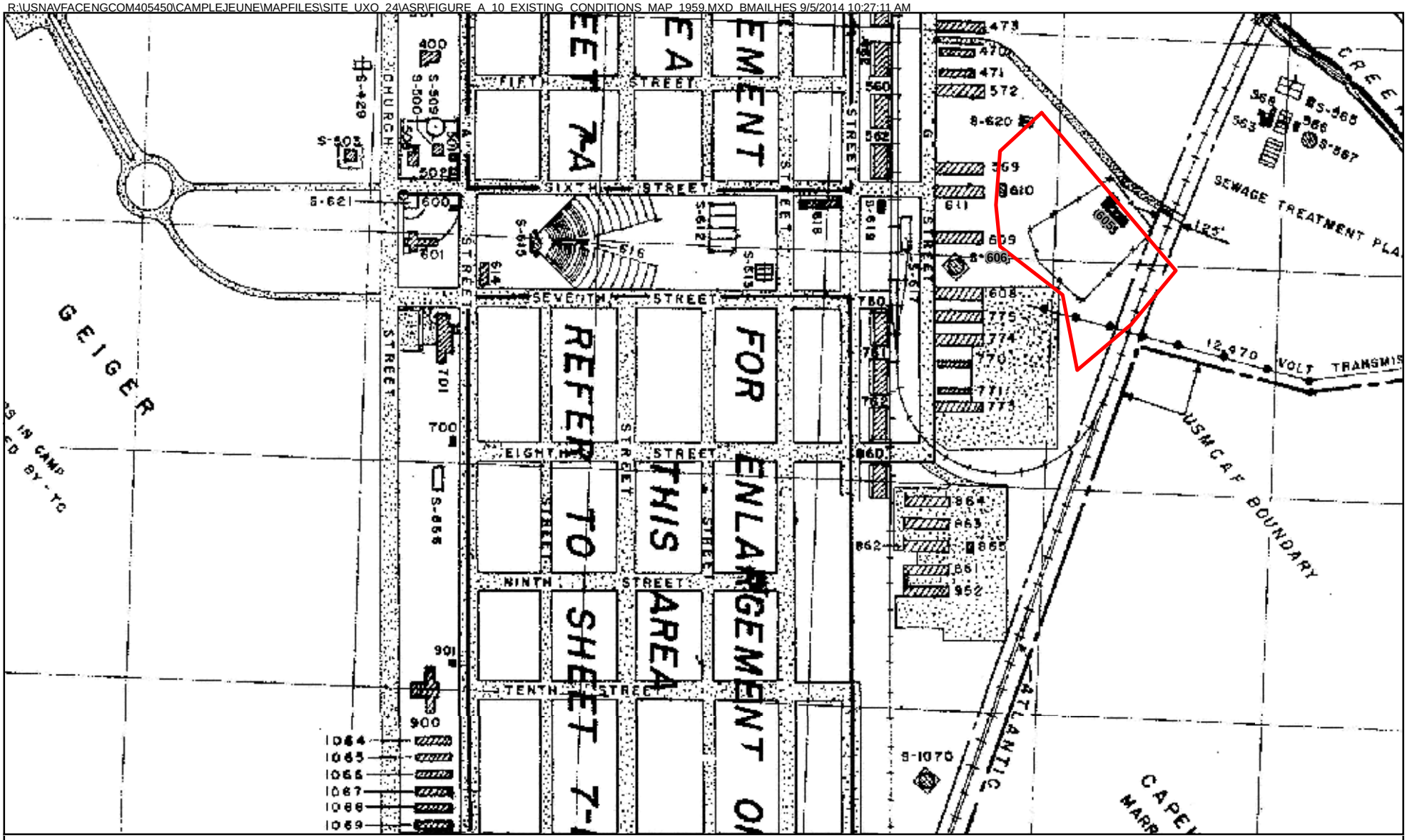
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-9
Existing Conditions Map 1957
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_10_EXISTING_CONDITIONS_MAP_1959.MXD BMAILHES 9/5/2014 10:27:11 AM



Legend

UXO-24 Boundary

N

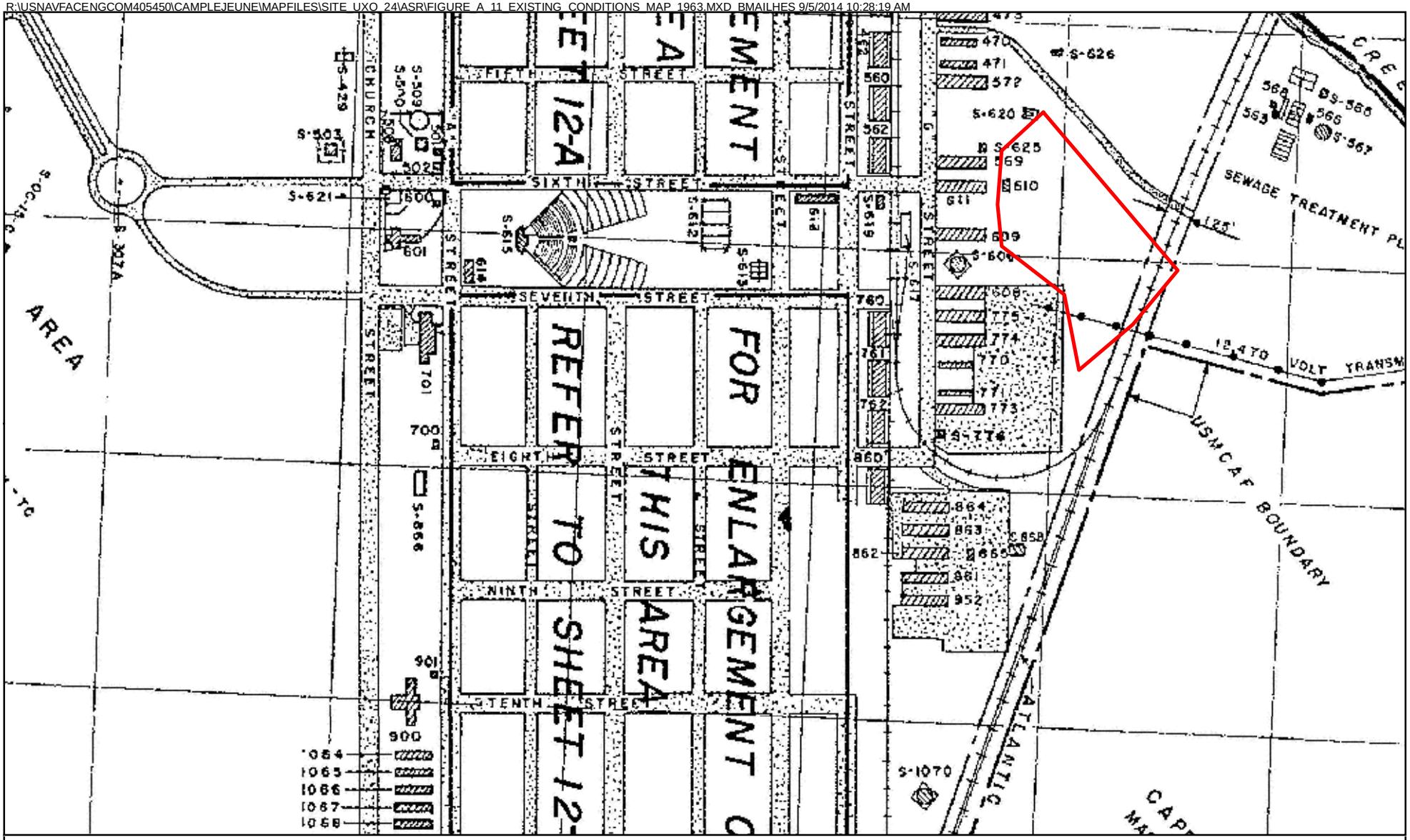
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-10
Existing Conditions Map 1959
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_11_EXISTING_CONDITIONS_MAP_1963.MXD BMAILHES 9/5/2014 10:28:19 AM



Legend

UXO-24 Boundary

N

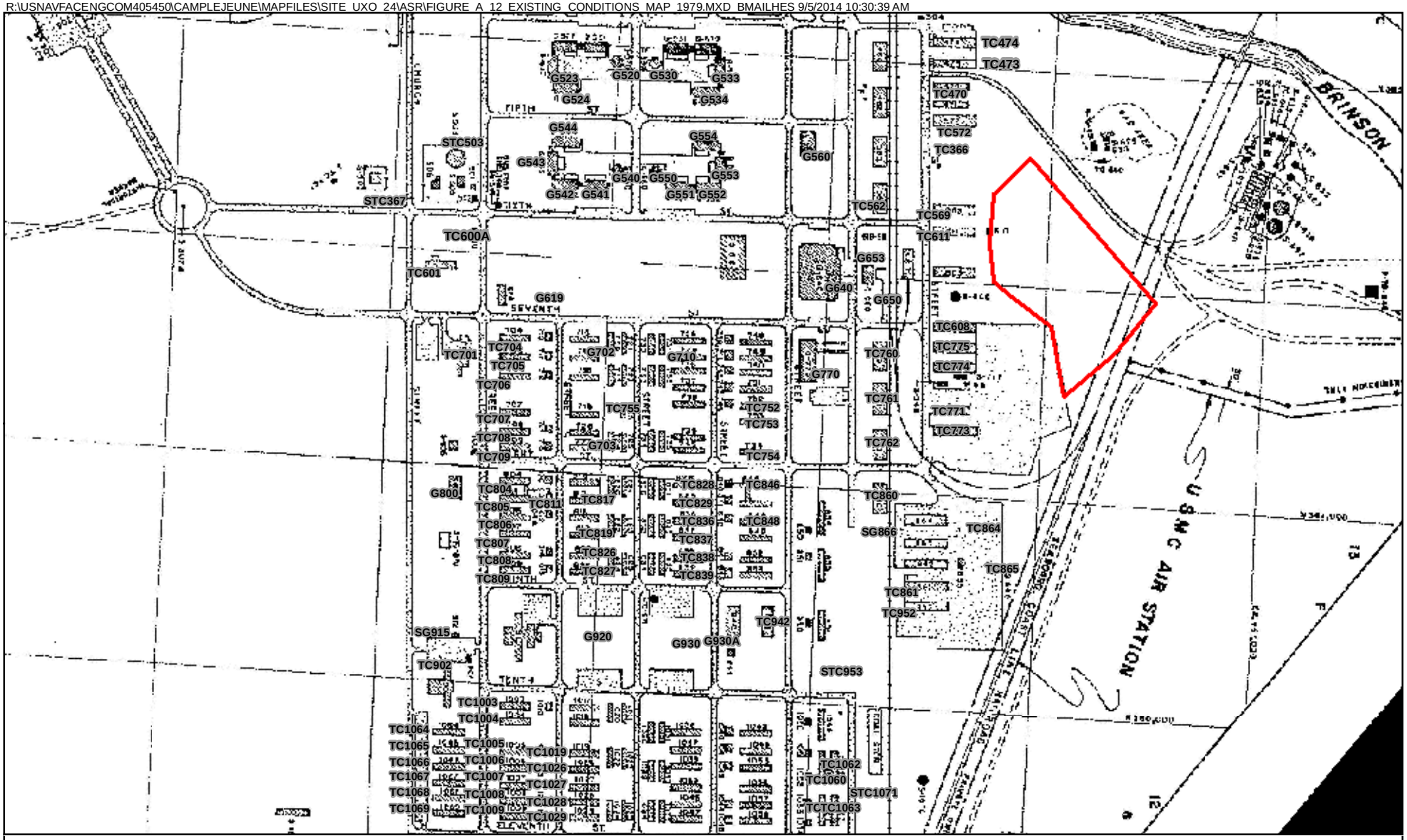
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-11
Existing Conditions Map 1963
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_12_EXISTING_CONDITIONS_MAP_1979.MXD BMAILHES 9/5/2014 10:30:39 AM



Legend

UXO-24 Boundary

N

0 325 650 1,300 Feet

1 inch = 650 feet

Figure A-12
Existing Conditions Map 1979
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_13_EXISTING_CONDITIONS_MAP_1984.MXD BMAILHES 9/5/2014 10:31:27 AM

Legend

UXO-24 Boundary

N

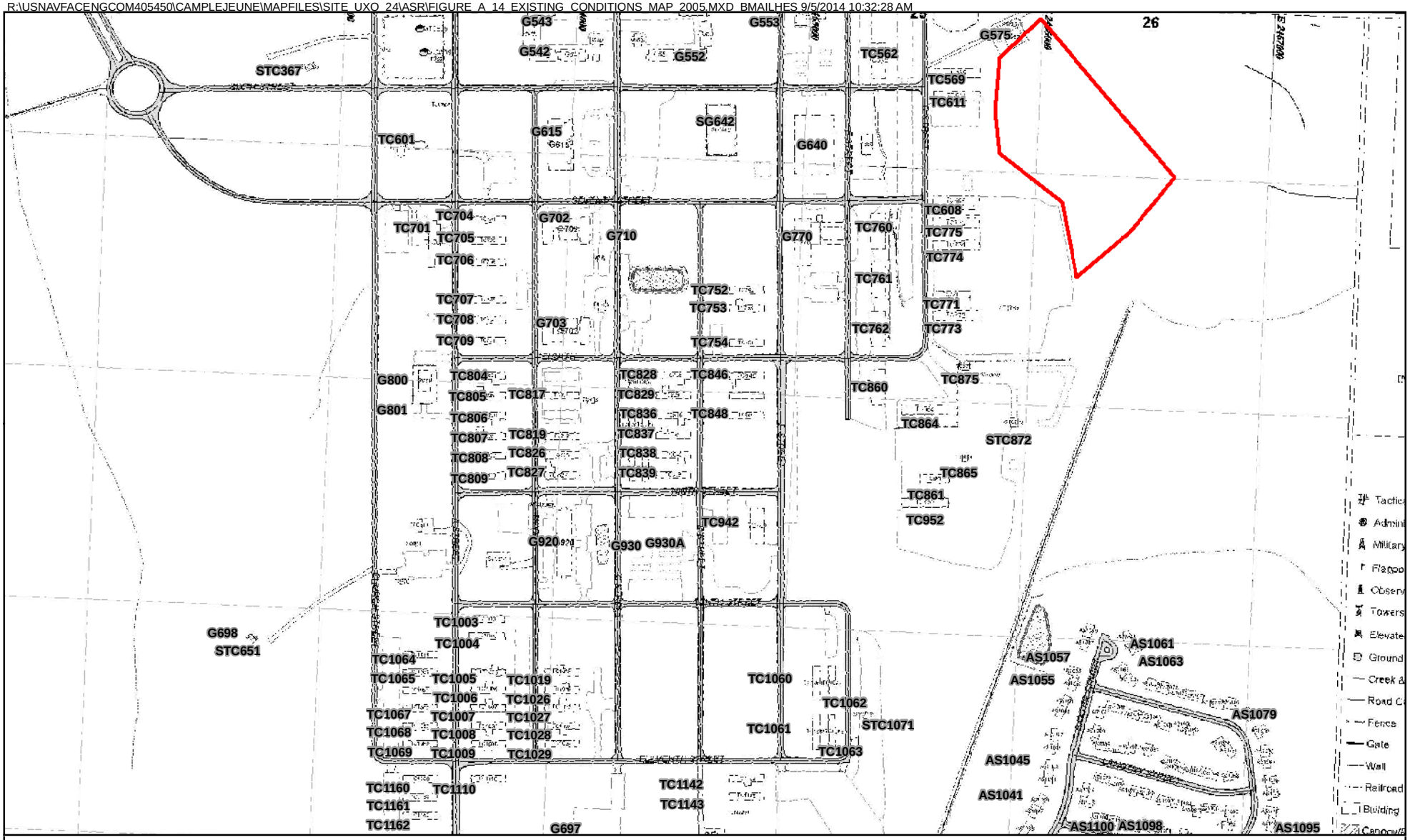
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-13
Existing Conditions Map 1984
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_14_EXISTING_CONDITIONS_MAP_2005.MXD BMAILHES 9/5/2014 10:32:28 AM



Legend

UXO-24 Boundary

N

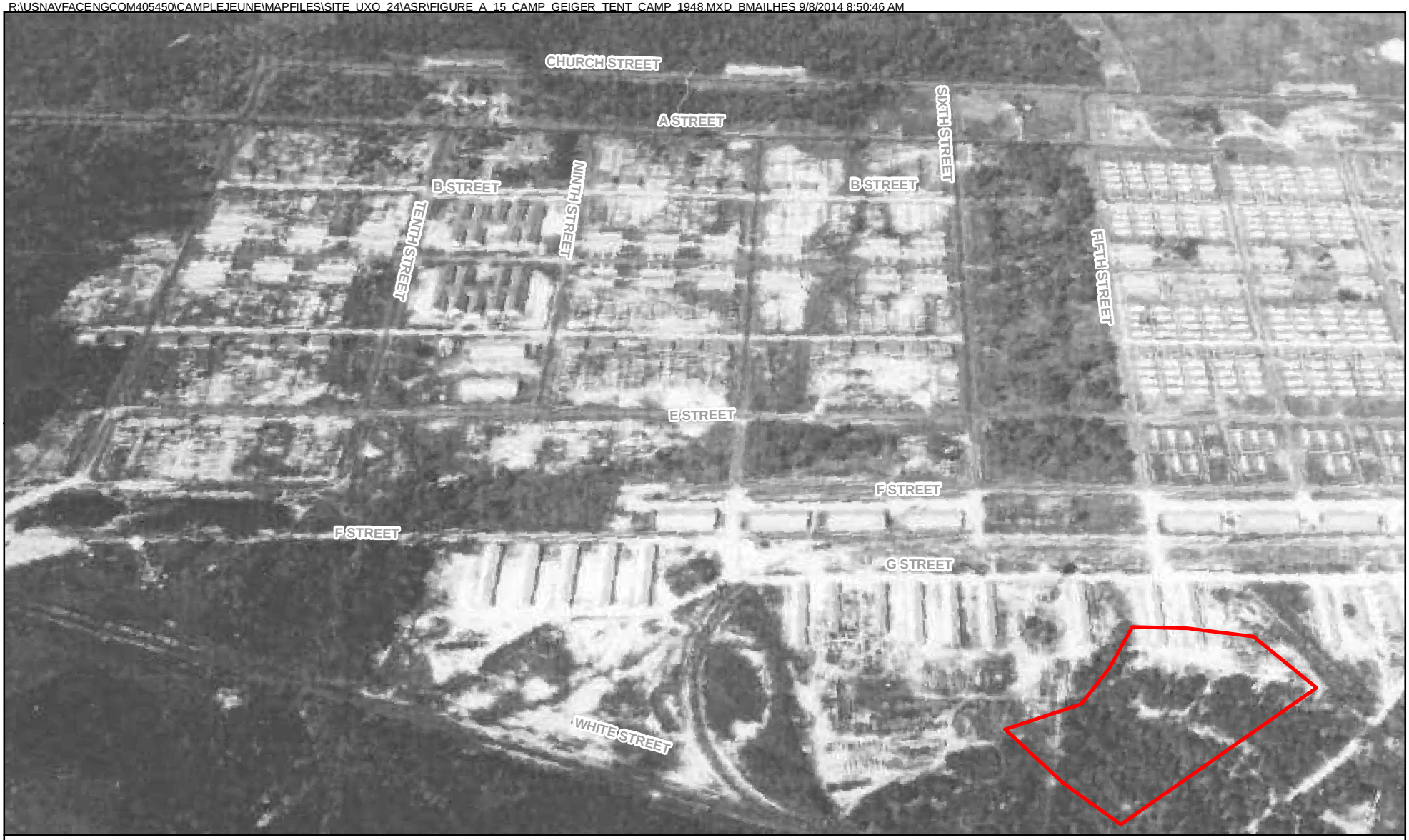
0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-14
Existing Conditions Map 2005
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_15_CAMP_GEIGER_TENT_CAMP_1948.MXD BMAILHES 9/8/2014 8:50:46 AM



Legend

UXO-24 Boundary

N

0 300 600 1,200 Feet

1 inch = 600 feet

Figure A-15
Camp Geiger Tent Camp 1948
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_16_CAMP_GEIGER_1951.MXD BMAILHES 9/5/2014 12:20:04 PM

Legend

UXO-24 Boundary

N

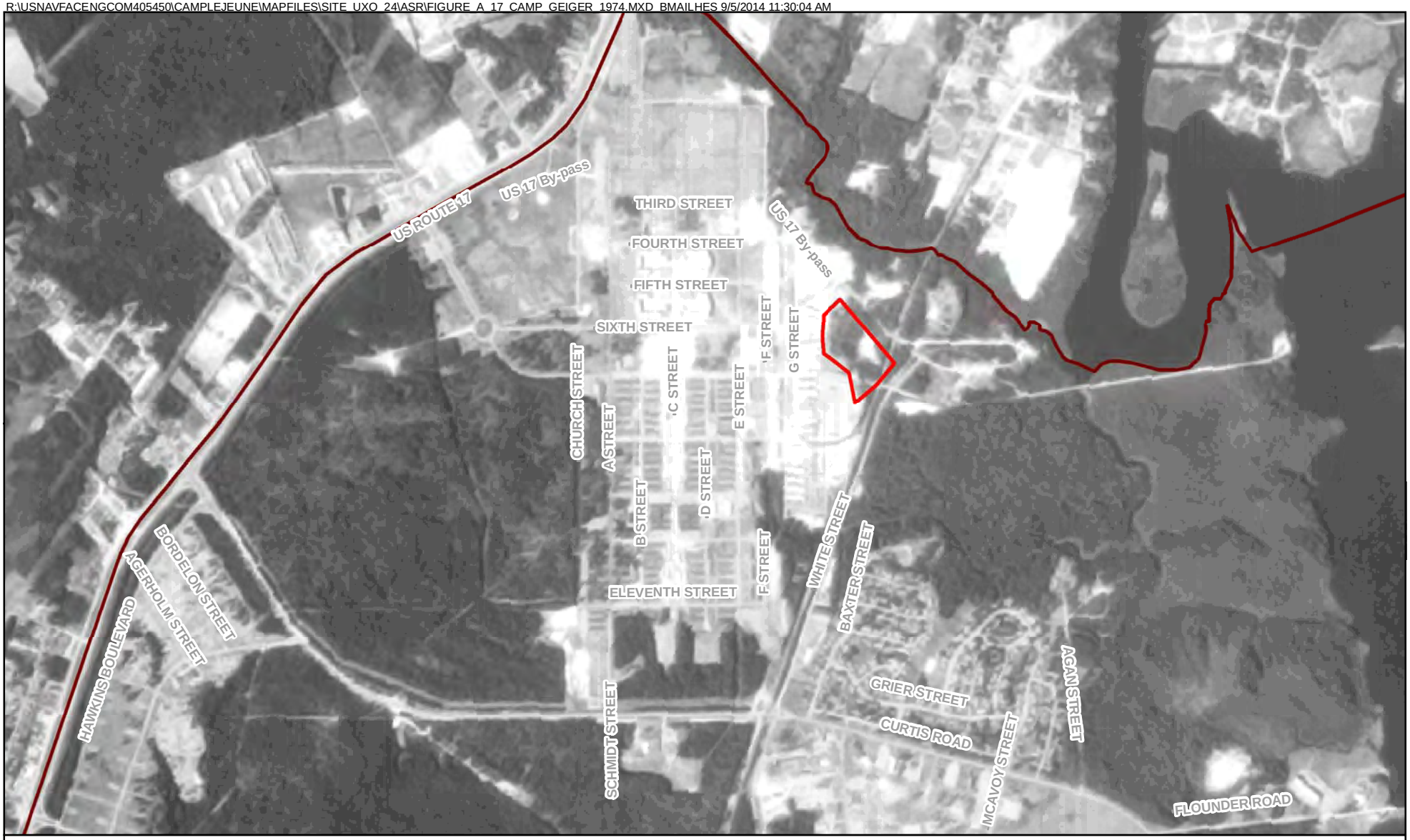
0 600 1,200 Feet

1 inch = 600 feet

Figure A-16
Camp Geiger 1951
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\ASR\FIGURE_A_17_CAMP_GEIGER_1974.MXD BMAILHES 9/5/2014 11:30:04 AM



Legend

UXO-24 Boundary

Installation Boundary

N

0 1,500 3,000 Feet

1 inch = 1,500 feet

Figure A-17
Camp Geiger 1974
Site UXO-24 ASR
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL

Attachment 1
Resource Review Summary

Resource Review Summary

The following table provides a summary of the specific references identified for review, interview, or contact for the archival report.

Resource	Actions Completed
Quantico, Virginia, Marine Corps Library, Gray Research Center—Histories department	Reviewed photographs related to Site UXO-24 that had been copied for previous archive search reports (ASRs).
MCIEAST–MCB CAMLEJ Base Technical Records	Existing conditions maps from 1944–2005, copied for previous ASRs.
Earth Explorer	Reviewed aerials of Camp Geiger, obtained on June 18, 2010.
Camp Lejeune Personnel	**Actions Completed**
Ms. Alice Bonnette, MCB CamLej Base Technical Records	Phone interview. August 12, 2011.
Mr. Bob Lowder, Environmental Management Division	E-mailed letters summarizing ammunition discover at Site UXO-24. Received on August 9, 2011.
Mr. Timothy Lake, Safety Officer, Marine Corps School of Infantry–East	E-mail correspondence in regard to ammunition discovery at Site UXO-24. August 15, 17, and 23, 2011.

Marine Corps Library Document Review

List of Aerial Photographs Obtained from Historical Reference Branch

- "Tent Camp, Camp Lejeune, NC" June 10, 1946
- "Tent Camp, Camp Lejeune, NC" May 30, 1948
- "Tent Camp Area, Camp Lejeune, NC – Looking East" September 17, 1948
- "Tent Camp Area, Camp Lejeune, NC – Looking West" September 17, 1948
- "Tent Camp Area, Camp Lejeune, NC – Looking South" December 23, 1948
- "Tent Camp Area, Camp Lejeune, NC – Looking North" September 21, 1948

List of Aerial Photographs of Site UXO-24 obtained from Base Technical Records

- Existing Conditions Map, 1944
- Existing Conditions Map, 1947
- Existing Conditions Map, 1948
- Existing Conditions Map, 1951
- Existing Conditions Map, 1953
- Existing Conditions Map, 1954
- Existing Conditions Map, 1957
- Existing Conditions Map, 1959
- Existing Conditions Map, 1963
- Existing Conditions Map, 1979
- Existing Conditions Map, 1984
- Existing Conditions Map, 2005

List of Aerial Photographs

- Air Station, January 12, 1942
- Camp Geiger Tent Camp 1948
- Tent Camp, Camp Lejeune, September 14, 1951
- Air Station, April 26 1974

Personal Correspondence and Letters Review

Base Technical Records

Base Technical Records Contact: Ms. Alice Bonnette
910-451-5507 x 3288
Phone call: August 12, 2011

Asked about Camp Geiger Surface Dump, Ms. Bonnette checked the Base Landfill database, and no results were present. Ms. Bonnette explained that Base Technical Records only has drawings, and no records. She recommended checking with EMD for information.

Letters

Neagle, Brendan 1st Lieutenant to the Commanding Officer, School of Infantry–East. 2010. *Preliminary Inquiry into the Circumstances Surrounding the Two (2) Ammunition Cans of Loose 5.56-mm Ball Rounds and one (1) Unexpended Pop-up 40-mm Trainer and one (1) Expended Smoke Grenade to Include Loose 5.56 Ball Rounds on the Ground Located in the Tree Line Ditch Behind the Headquarters and Support Battalion Ammunition Dunnage Warehouse, School of Infantry–East, Training Command, Camp Lejeune.* March 24.

- Received on August 9, 2011. Letter discusses events surrounding the finding of ammunition behind warehouse TC-611. Includes statements from four marines involved in the incident, which includes information on location of buried ammunition, amount of ammunition, and actions following discovery of ammunition. Includes summary of findings and recommendations. Recommends further contact with EOD.

Commanding Officer to the Commanding Officer, Headquarters and Support Battalion School of Infantry–East. 2010. *Preliminary Inquiry into the Circumstances Surrounding the Two (2) Ammunition Cans of Loose 5.56-mm Ball Rounds and one (1) Unexpended Pop-up 40-mm Trainer and one (1) Expended Smoke Grenade to Include Loose 5.56 Ball Rounds on the Ground Located in the Tree Line Ditch Behind the Headquarters and Support Battalion Ammunition Dunnage Warehouse, School of Infantry-East, Training Command, Camp Lejeune.* April 8.

- Received on August 9, 2011. Letter states the allegations of the inquiry have been substantiated. The letter includes the Neagle 2010 letter as an enclosure.

Commanding Officer to the Director Installation and Environmental, Marine Corps Base, Camp Lejeune, North Carolina. 2010. *Request Site Investigation under the Military Munitions Response Program (MMRP).* April 20.

- Received August 9, 2011. Summary of opinion regarding ammunition discovery behind TC-611. Recommends area be investigated by EMD under MMRP.

E-mail Correspondence

Mr. Timothy Lake, Safety Officer for Marine Corps School of Infantry–East

<u>August 15, 2011, E-mail to Mr. Lake:</u>

Asked for additional information regarding ammunition discovery behind TC-611, historical information regarding specific items stored in warehouses, and about the Camp Geiger Surface Area Dump.

August 17, 2011, Reply from Mr. Lake:

Copied two additional people on e-mail who may have information, Gunnery Sergeant Michael Getchel and Mr. Andrew Unsworth. No information on historical uses of warehouses near site, states it is probably impossible to know exactly what has been stored in these buildings.

August 23, 2011, Reply from Mr. Lake:

Forwarded e-mail responses from Mr. Unsworth from August 22, 2011: No information on what items have been stored in warehouses near site. No information on Camp Geiger Surface Area Dump.

Forwarded e-mail responses from Gunnery Sergeant Getchel from August 22, 2011: Locations of holes are on a main trail directly behind warehouse, the holes are still present. EOD walked around area and picked up visible ammunition; holes were untouched. No additional UXO discovered, except for the small arms in the holes. No knowledge of storage use in warehouses or of Camp Geiger Surface Area Dump.

Appendix B
Digital Geophysical Mapping Report

Marine Corps Installations East–Marine Corps Base Camp Lejeune Site UXO-24 Digital Geophysical Mapping Final Report

PREPARED FOR: Bill Schmithorst/RDU

COPY TO: Tamir Klaff/WDC, Andy Gascho/DEN, Jennifer Weller/DFB, Andrew Louder/WDC

PREPARED BY: Matthew Barner/CLT

DATE: June 12, 2012

PROJECT NUMBER: 378849

This memorandum presents the results of digital geophysical mapping (DGM) conducted by CH2M HILL at Site UXO-24 at Marine Corps Installations East–Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) in North Carolina. The DGM was conducted in advance of proposed construction. Work was performed by CH2M HILL under Navy CLEAN Contract N62470-08-D-1000, Contract Task Order 014, Modification 7.

Survey Objective

The objective of the DGM was to identify subsurface anomalies potentially indicative of Munitions and Explosives of Concern (MEC) within the footprint of the proposed construction.

Site Description

Site UXO-24 is located in the Camp Geiger area of Marine Corps Air Station New River, near MCIEAST-MCB CAMLEJ. The site is situated to the east of G Street and west of the U.S. Highway 17 Bypass (**Figure 1**). The entire site encompasses approximately 9 acres, whereas the DGM area covers approximately 2.5 acres. The DGM area is depicted in red in **Figure 1**.

During the early 1950s, the site was reportedly used as a surface dump. Osage of Virginia conducted a confirmatory sampling investigation of the surface dump area in March 2010 and analyzed subsurface soil and groundwater samples. In 2010, the Base discovered that unexpended ammunition had been buried behind Building TC-611 (**Figure 1**).

On March 19, 2010, MCIEAST-MCB CAMLEJ reported that ordnance, consisting of two cans containing live small arms, was found on the ground surface adjacent to an excavation behind building TC-611. The findings led to surface sweeps conducted by others. The surface sweep identified the following items:

- (1) M18 smoke grenade
- (1) red star cluster (pop-up flare)
- (1) M212 practice grenade
- (2207) 5.56 blank rounds
- (33) 9-millimeter (mm) AA12 rounds
- (5) 9-mm AA21 rounds
- (22) 5.56 tracer rounds
- (79) 5.56-mm ball rounds
- (3) 7.62 ball rounds
- (16) 7.62 blank rounds
- 25-mm casing
- AK74 blank rounds

The majority of the DGM survey area at Site UXO-24 was densely wooded. Brush clearing was performed in advance of the DGM and ground cover vegetation and trees smaller than 6 inches in diameter were cut to a height of approximately 6 inches above ground surface. Localized pockets of trees and dense vegetation

remained, particularly along the eastern edge of the DGM survey area, resulting in data gaps in the DGM coverage. Additional data gaps resulted from the densely-overgrown drainage swale that bisected the site in a general northwest-southeast orientation and localized pockets of surface debris. The northernmost extent of the DGM area (Grid D6A6B1 in **Figure 1**) was not accessible due to the security fence that surrounds Building G575 (**Figure 1**).

Health and Safety

The DGM at Site UXO-24 was conducted in accordance with the project health and safety plan and accident prevention plan. Upon arrival to the site, CH2M HILL DGM personnel received a site-specific orientation from the unexploded ordnance quality control and safety officer (UXOQCS). The UXOQCS subsequently provided daily safety briefings each morning.

Geophysical Equipment

In accordance with the project geophysical investigation plan (GIP) (CH2M HILL, 2012a), the Geonics, Ltd. EM61-MK2 instrument was presumptively selected and used to conduct the DGM at Site UXO-24. An Allegro CX field computer was used to operate the system and for data storage.

The EM61-MK2 is a high-resolution, time-domain electromagnetic instrument designed to detect, with high spatial resolution, shallow ferrous and non-ferrous metallic objects. The standard EM61-MK2 system consists of two air-cored, 1-meter (m) by 0.5-m coils, a digital data recorder, batteries, and operating electronics. The EM61-MK2 transmitter generates a pulsed primary magnetic field, which induces eddy currents in nearby metallic objects.

For the DGM at Site UXO-24, the EM61-MK2 was operated in four-channel mode, which measures the eddy currents at four distinct time intervals recorded by the bottom coil. The four-channel mode of operation was used at Site UXO-24, and is generally used in DGM operations, because responses from potential surface and near-surface items are desired. In addition, the fourth interval from the bottom coil provides data that enhance evaluation of response decay over suspected individual MEC items. In the four-channel mode, earlier time gates provide enhanced detection of smaller metallic objects.

The EM61-MK2 was operated in person-portable mode with the system mounted on its standard wheels. In person-portable mode, the bottom coil measured approximately 42 centimeters (cm) above the ground surface. The system consisted of encapsulated coils, which resulted in a height of 42 cm as opposed to the 40-cm height of the standard EM61-MK2 coil.

Positioning of the EM61-MK2 was maintained using fiducial markers inserted in the data at regular intervals along the survey lanes. Because data were collected in four-channel mode, the top coil of the EM61-MK2 was not used. During project planning, CH2M HILL assumed that the majority of Site UXO-24 would not be conducive to the reliable use of a global positioning system because of the tree canopy.

Mobilization

CH2M HILL DGM personnel mobilized to the MCIEAST-MCB CAMLEJ area on April 29, 2012. Fieldwork was conducted at Site UXO-24 between April 30 and May 3, 2012.

Geophysical System Verification

CH2M HILL implemented the geophysical system verification (GSV) process for the DGM at Site UXO-24. The process compares signal strength and sensor performance to known response curves of industry standard objects (ISOs) to validate DGM systems before and during site surveys. The GSV process, the measurement quality objectives (MQOs), and measurement performance criteria are discussed in detail in the GSV plan, which is included as Attachment 1 to the GIP (CH2M HILL, 2012a).

With the EM61-MK2, CH2M HILL attempted to locate an area suitable for an instrument verification strip (IVS) near the Site UXO-24 survey area. However, the majority of the area surrounding Site UXO-24 was characterized by widespread elevated responses. Therefore, a suitable location convenient to Site UXO-24 could not be found. As a result, CH2M HILL elected to use an IVS that had been previously constructed in January 2012 for the DGM at

Site UXO-26. The IVS was located within a 5-minute drive of Site UXO-24. CH2M HILL first verified that the Site UXO-26 IVS was intact, the buried seed items had remained undisturbed, and that the site conditions at the IVS were suitable for continued use. CH2M HILL modified the IVS for the Site UXO-24 DGM, removing the middle seed item (ISO-2) from the original IVS. The item removed was a small ISO oriented horizontal and along the seeded IVS transect. The resulting IVS used for Site UXO-24 contained two small ISOs. The original ISO-3 location was renamed to ISO-2 for the Site UXO-24 DGM.

Initial testing was conducted along the IVS transects to verify that the along-transect distances were accurately tracked by the EM61-MK2 wheel encoder. The IVS data collected for the Site UXO-24 DGM were submitted on April 30, 2012, to the CH2M HILL quality control (QC) geophysicist for evaluation.

As part of the ongoing GSV process, four blind seed items were buried by the UXOQCS within the DGM survey area, and the locations were recorded by the project land-surveying subcontractor, ECLS. The locations of the seed items were not marked in the field and were sent directly to the QC geophysicist. The IVS construction details and results of the GSV process for Site UXO-24 are presented in **Attachment A** to this memorandum. The initial IVS construction details and results of the Site UXO-26 GSV process can be found in Attachment A of the *MCB Camp Lejeune UXO-26 DGM Final Report* (CH2M HILL, 2012b).

DGM Field Investigation

Prior to the start of the DGM at Site UXO-24, ECLS placed wooden stakes to delineate the DGM survey area boundary. Wooden stakes were also placed at the corners of the 50-meter by 50-meter MCIEAST-MCB CAMLEJ site-specific grids displayed in **Figure 1** encompassing the DGM survey area. If the corner of a particular grid was located outside the brush-cleared area (particularly along the eastern edge), ECLS placed an offset stake within the cleared portion of the survey area and noted the offset distance on the stake.

CH2M HILL conducted DGM across 100 percent of the accessible portions of the survey area. Data were collected in accordance with the GIP, using a lane spacing of 0.75 meter. CH2M HILL used a series of ropes with 0.75-meter interval marks painted on them to assist with navigation within each grid. Ropes were extended from the corner stakes placed by ECLS. Additional ropes were extended across the grid to serve as navigation aids and to identify a known distance along the survey lanes for inserting fiducial markers in the data. Using the known surveyed coordinates of the corner stakes and the fiducial markers, the DGM data were able to be georeferenced during data processing to Universal Transverse Mercator coordinates. CH2M HILL used a Munitions Response Site Information Management System (MRSIMS) personal digital assistant (PDA) to record the locations of the fiducial markers for each survey lane within each grid. The PDA was also used to track the locations of impassable obstructions (for example, trees) within the grids. The information was submitted each day, along with the raw DGM data, to the CH2M HILL data processor.

Daily QC tests were conducted in accordance with the GIP and included an instrument warm-up period, static test measurements of background values and response values with a small ISO, collection of the seeded IVS transect, and collection of repeat data profiles. Descriptions of the QC tests and MQOs for each are included in the GIP (CH2M HILL, 2012a). **Figure 2** depicts DGM data collection efforts at Site UXO-24. Additional field information (for example, QC test file names, weather conditions, and general survey notes) was recorded using the MRSIMS PDA.

FIGURE 2
DGM at Site UXO-24
Left: Conducting Daily QC Tests at IVS
Middle: Ropes Used for Navigation within Survey Grids
Right: Collecting EM61-MK2 Data

Information Management

Raw data, field information, photographs, and other relevant supporting field notes were posted daily to the project file transfer protocol (ftp) site. The MRSIMS PDA was synchronized daily with the master MRSIMS project database stored on the project ftp site.

Demobilization

After completion of the data collection, CH2M HILL DGM personnel moved from Site UXO-24 to another project site at MCIEAST-MCB CAMLEJ. The field team demobilized from the Site UXO-24 area on May 4, 2012.

Data Processing

Data processing was completed in the following steps: (1) QC review of DGM field forms, (2) fiducial positioning, (3) DGM pre-processing, and (4) DGM final processing.

QC of DGM Field Forms

Daily QC of the DGM field forms was completed by the CH2M HILL data processor. The QC process was intended to check that MRSIMS was updated each day with the required information and that the relevant field information (for example, survey notes, QC test file names, EM61-MK2 battery levels, weather conditions, etc.) was effectively captured.

Fiducial Positioning

Raw EM61-MK2 data files were imported into DAT61MK2 (issued by Geonics, Ltd.), whereas the individual transect start, end, and internal fiducial markers were manually entered or adjusted by the data processor. The software interpolated between the points along each transect to refine the local (*x,y*) coordinates for each measurement. The resulting files were subsequently exported as .xyz files in the American Standard Code for Information Interchange Two (ASCII) format. The .xyz files contained the adjusted positions, the sensor responses for each of the four channels, and the corresponding time stamp.

DGM Pre-processing

Positioned .xyz files were subsequently imported into Oasis Montaj (issued by Geosoft) for pre-processing. DGM pre-processing steps included the following:

1. Evaluate QC tests (static, cable shake, and personnel) prior to processing DGM survey data.
2. Convert/warp the local (*x,y*) coordinate system to North American Datum of 1983 Universal Transverse Mercator Zone 18 North coordinates (meters) by matching fiducial marker locations with surveyed stake locations provided by ECLS.
3. Apply auto-leveling and instrument drift corrections for EM61-MK2 data.
4. Apply an appropriate lag correction (from daily seeded IVS transect collection).

5. Grid all four time gates using the Oasis Montaj minimum curvature algorithm.
6. Generate preliminary contour maps from gridded data.
7. Compare original versus repeat data.
8. Generate formatted ASCII files containing preprocessed data for Site UXO-26.

Following completion of the steps, the pre-processed data were reviewed by the CH2M HILL QC geophysicist. Once approved by the QC geophysicist, a raw data delivery report was generated from MRSIMS.

DGM Final Processing

Final DGM processing steps included the following:

1. Target selection from contoured data for each Site UXO-24 survey grid.
2. Generate formatted ASCII files containing processed data.
3. Generate a final map for Site UXO-24 grids showing contoured, gridded data, target locations, surveyor stake locations, and anomaly polygons.
4. Prepare target lists.

Following completion of the steps, the final processed data were reviewed by the CH2M HILL QC geophysicist. Once approved by the QC geophysicist, a final data delivery report was generated from MRSIMS.

Target Selection

The target anomaly threshold of 3 millivolts (mV) on Channel 2 was selected for Site UXO-24 based on the results of the GSV Process (**Attachment A**). Initial target selections were made using the automatic peak picking module (Blakely Test) in the Oasis Montaj UX-Detect module to identify peak amplitude responses in the gridded Channel 2 data that appeared to be indicative of potential MEC. Data profiles for all four channels were reviewed by the data processor to evaluate the validity and position of the auto-selected targets. Targets found to be invalid or incorrectly located were adjusted and/or removed from the final selection list. The review was performed by evaluating the decay in mV responses laterally from a peak response as well as the general shapes of the response curves for each channel at the selected anomaly locations. The intent of the evaluation was to identify automatically selected targets that appear to be associated with surface debris or noise spikes. The anomalies typically exhibit different characteristics compared to subsurface anomalies potentially indicative of MEC. The review process also facilitates adding anomalies to the target selection list that may not have been automatically selected by the UX-Detect module but appear to represent potential MEC.

Targets identified as Type 1 in the final anomaly list are those characteristic of potential MEC (see **Table 1a**), and those defined as Type 2 are suspected culture (for example, surface metal debris). Type 3 targets include those that are known to be associated with culture, although none of the targets for Site UXO-24 were categorized as Type 3.

Targets identified as Type 4 represent saturated response area (SRA) polygons. These polygons indicate either the presence of a surface metallic feature (e.g. fence) or widespread elevated responses from subsurface anomalies that saturated the EM61-MK2 response to the point where discrete targets could not be selected from the data. Anomaly polygons are defined in the target list by the Type 4 designation as well as the four vertices (*x,y* coordinates) that define the polygon (see **Table 1b**). The Type 4 targets are assigned a default amplitude of 999 mV. The target lists were provided to the QC geophysicist for approval as part of the DGM final processing package.

TABLE 1A
Representative Selection of Type 1 Targets for Site UXO-24

ID	GRIDCELLID	X1	Y1	X2	Y2	X3	Y3	X4	Y4	TYPE	AMPLITUDE	UNITS
1	D6A5A0	275741.4	3846450.4	0	0	0	0	0	0	1	23.8	mV
2	D6A5A0	275742.1	3846461.7	0	0	0	0	0	0	1	3.2	mV
3	D6A5A0	275742.4	3846464.4	0	0	0	0	0	0	1	24.3	mV
4	D6A5A0	275742.5	3846466.5	0	0	0	0	0	0	1	12.9	mV
5	D6A5A0	275743.4	3846473.6	0	0	0	0	0	0	1	9.0	mV
6	D6A5A0	275743.5	3846460.0	0	0	0	0	0	0	1	9.5	mV

TABLE 1B
Representative Anomaly Polygons in Target List for Site UXO-24

ID	GRIDCELLID	X1	Y1	X2	Y2	X3	Y3	X4	Y4	TYPE	AMPLITUDE	UNITS
54	D6A5A0	275742.6	3846450.0	275743.8	3846453.3	275750.0	3846454.4	275750.0	3846450.0	4	999.0	mV
55	D6A5A0	275741.4	3846455.1	275750.0	3846455.6	275750.0	3846458.9	275741.6	3846458.7	4	999.0	mV

DGM Results

The results of the DGM at Site UXO-24 are presented as **Figures 3 through 13**. Responses between 0 and 3 mV represent localized background conditions. A total of 1,479 Type 1 targets was identified within the surveyed area. The high number of targets is consistent with debris disposal areas. Four of the anomalies represent the QC seed locations that were successfully detected as part of the GSV process (see **Attachment A**). A total of 33 Type 2 targets was identified, and a total of 11 SRA polygons (Type 4) was identified.

Type 1 and Type 2 targets are identified as black triangles in **Figures 3 through 13**. The corresponding target IDs shown in **Figures 3 through 13** correspond to the IDs on the supplied target lists (see **Tables 1a and 1b**). The IDs start with "1" for each grid. The red-hatched patterns in **Figures 3 through 13** represent the SRA anomaly polygons. In some instances, an SRA extends across a grid boundary. In these cases (for example, **Figures 3 and 5**), a single feature is defined by multiple polygons (that is, Type 4 targets) because an SRA polygon may not extend across a grid line for purposes of tracking these features in MRSIMS.

Two survey area boundary lines are depicted in **Figures 3 through 13** and defined in the figure legends. CH2M HILL provided ECLS with the coordinates of the site boundary and DGM survey area (**Figure 1**) prior to the start of fieldwork. After completing the boundary stake-outs, ECLS identified an error in its internal conversion of the coordinates originally provided by CH2M HILL. The error was not identified until after ECLS had staked the boundaries. However, by the time the error was discovered, the DGM had been completed and had used the stakes placed in the field by ECLS. As a result, the surveyed DGM footprint varies from the intended footprint shown in **Figure 1**. Both the correct DGM survey area boundary (red line) and the perimeter physically marked by ECLS in the field (yellow line) are shown on **Figures 3 through 13**.

The MQOs for the quantitative QC tests (cable shake, personnel, static) were met for the DGM at Site UXO-24. Sample results of the QC tests are presented as **Figure 14**. The remainder of the test results, along with the raw data delivery and final data delivery reports, are provided on the CD included with this report.

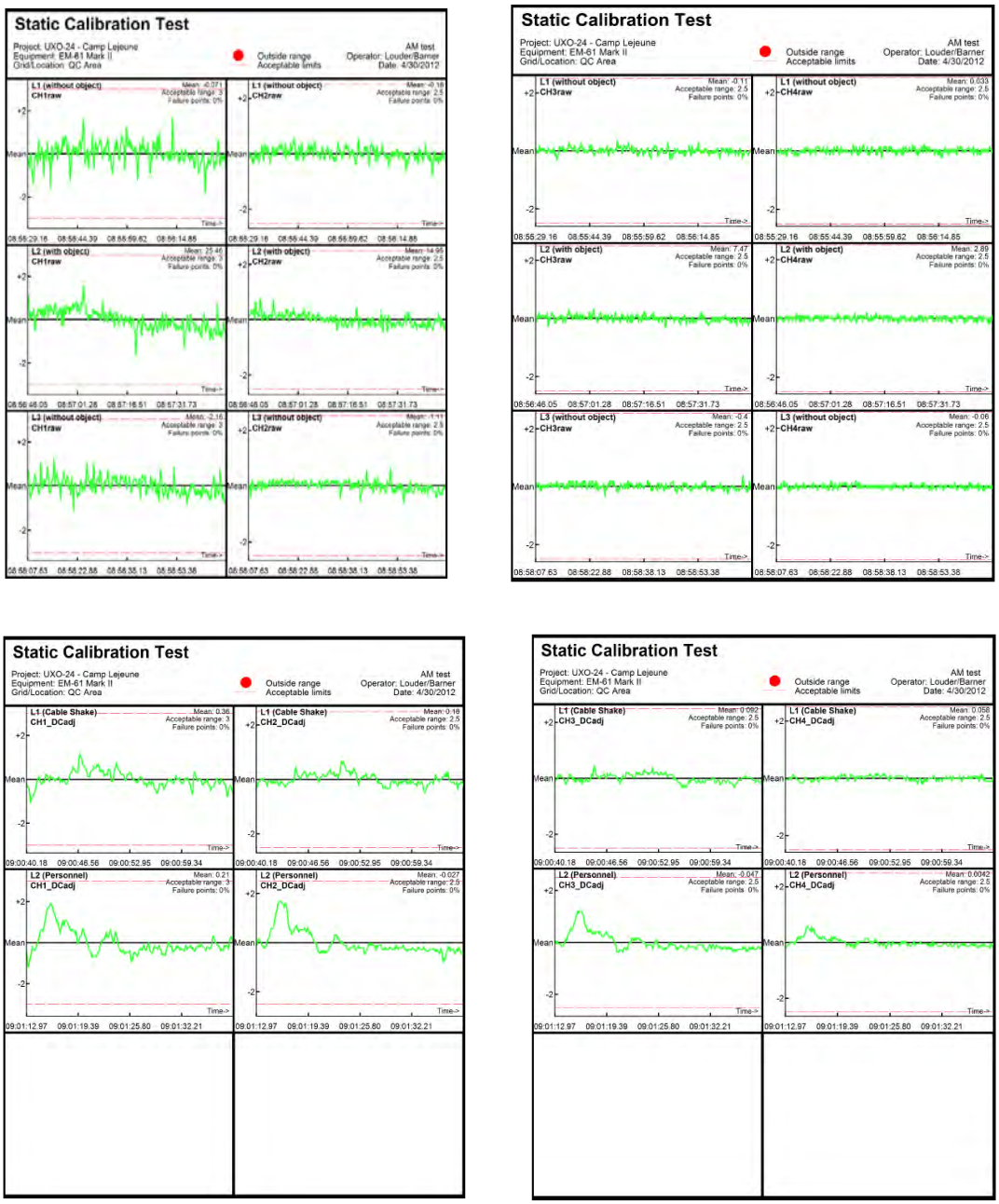
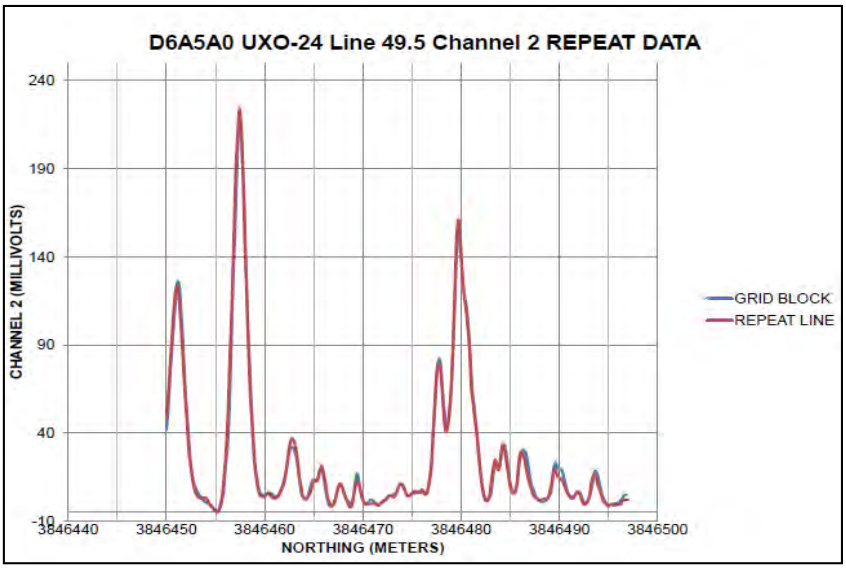


FIGURE 14
Representative DGM QC Test Results for Site UXO-24
Top: Representative Static Test Results (Channels 1 through 4)
Bottom: Representative Vibration and Personnel Test Results (Channels 1 through 4)

The repeat data appear to match well between the production survey and repeat survey. Representative examples of the repeat survey data are presented in **Figure 15.** The results are presented as line graphs depicting the Channel 2 responses from the original survey data and the repeat data. Variations in the peak response from an anomaly identified in the production survey versus the repeat survey line (**Figure 15, bottom**) may be attributed to several factors, including, but not limited to, the following: variation in the position of the EM61-MK2 coil center with respect to the subsurface target, inadvertent movement of a piece of surface metal as DGM field crew walked over the object, or a variation in height of EM61-MK2 due to surface brush. As a result of these factors, the repeat data evaluation is done on a qualitative basis. The repeat data results from the entire survey, along with the raw data delivery and final data delivery reports, are provided on the CD included with this report.



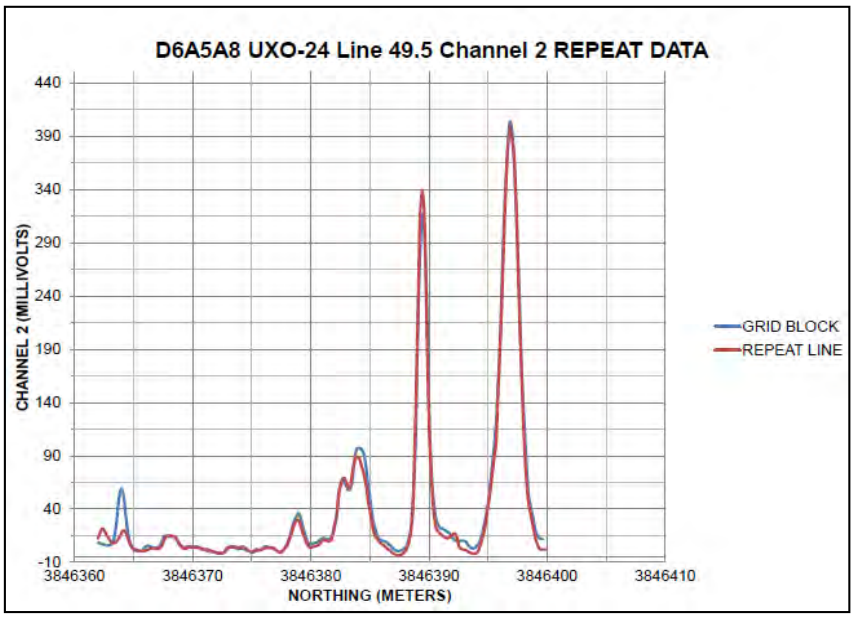


FIGURE 15
Representative Repeat Data Results for Site UXO-24
Top: Representative Repeat Data Profile for Grid D6A5A0
Bottom: Representative Repeat Data Profile for Grid D6A5A8

References

CH2M HILL. 2012a. *Geophysical Investigation Plan Preliminary Assessment/Site Inspection; Unexploded Ordnance (UXO) Site UXO-24, Camp Geiger Burial Area, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina*. January.

CH2M HILL. 2012b. *MCB Camp Lejeune UXO 26 DGM Final Report.* March.

Figures

R:\USNAVFACENGCOM405450\CAMPLEJEUNE\MAPFILES\SITE_UXO_24\SAP\FIGURE_1_DGM_SURVEY_AREA.MXD JCROCKETT 6/26/2012 8:11:34 AM

Legend

- UXO-24 Boundary
- Installation Boundary
- 50x50 meter grid
- Wetlands
- DGM Survey Area

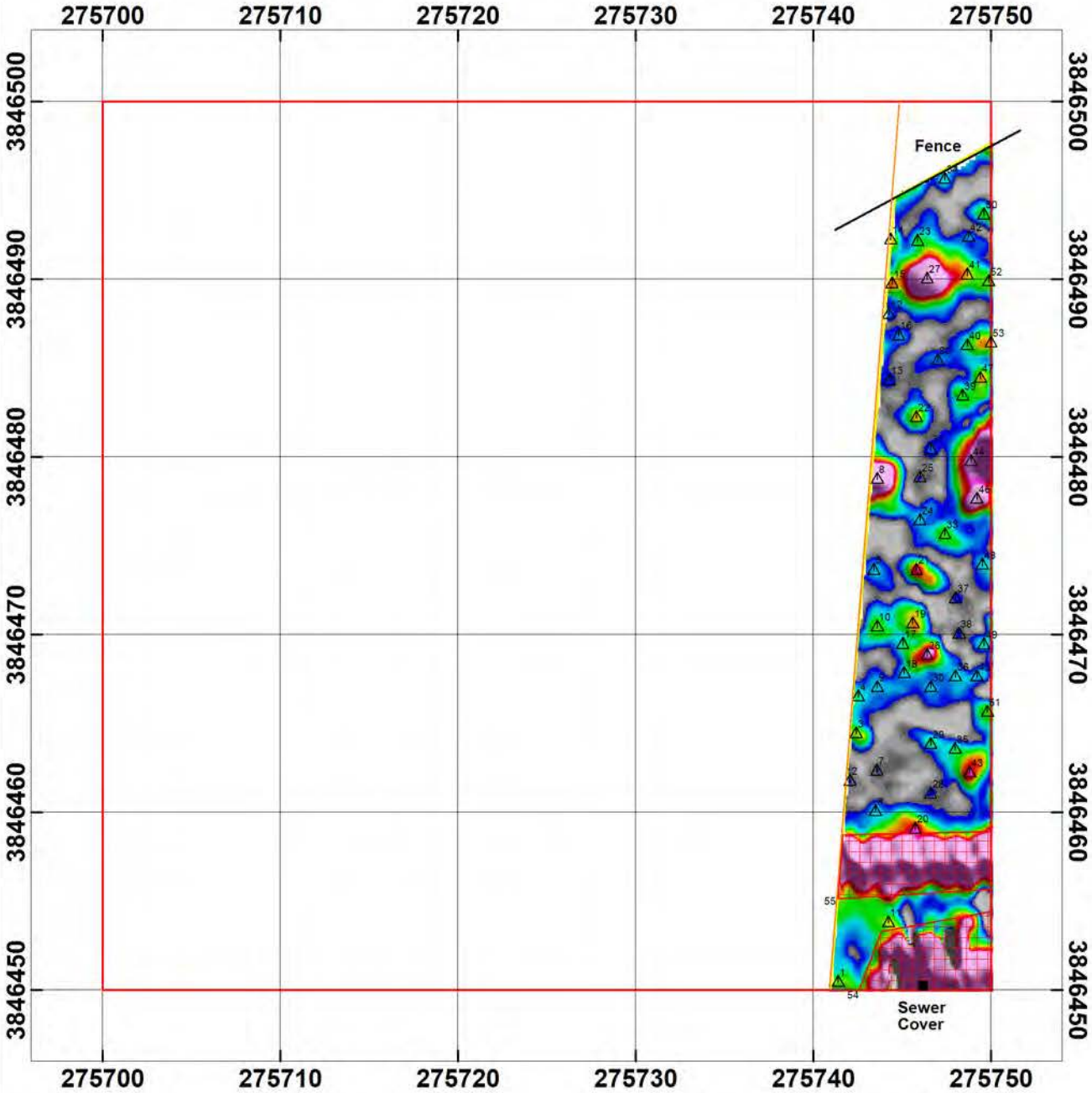
N

0 150 300 600 Feet

1 inch = 300 feet

Figure 1
DGM Survey Area
Site UXO-24
MCIEAST-MCB CAMLEJ
North Carolina

CH2MHILL



Grid D6A5A0

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Feature
- Fence
- Saturated Response Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

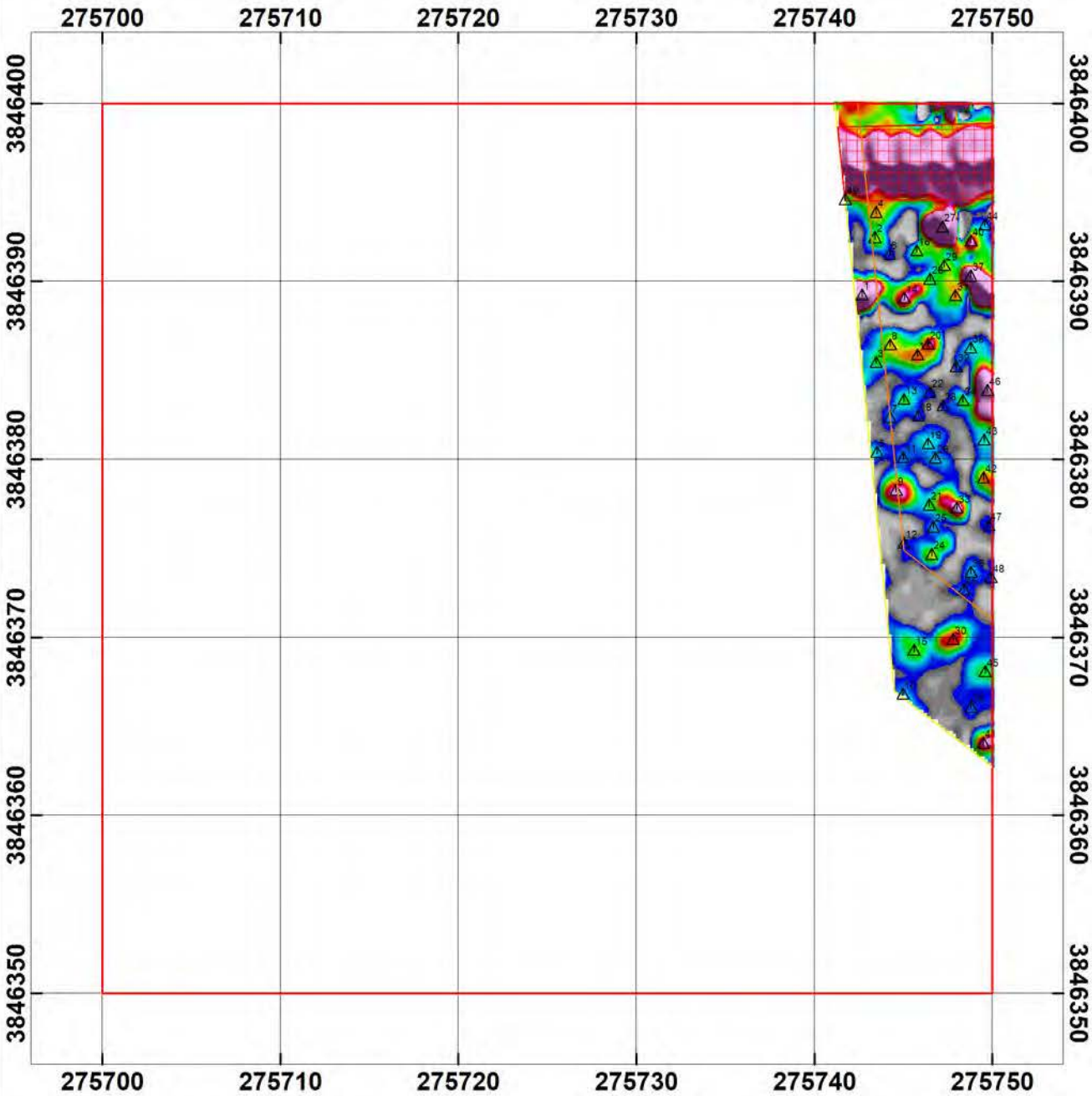
meters

NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/02/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

CH2MHILL

Figure 3



Grid D6A5A8

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Saturated Response Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

meters

NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/01/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

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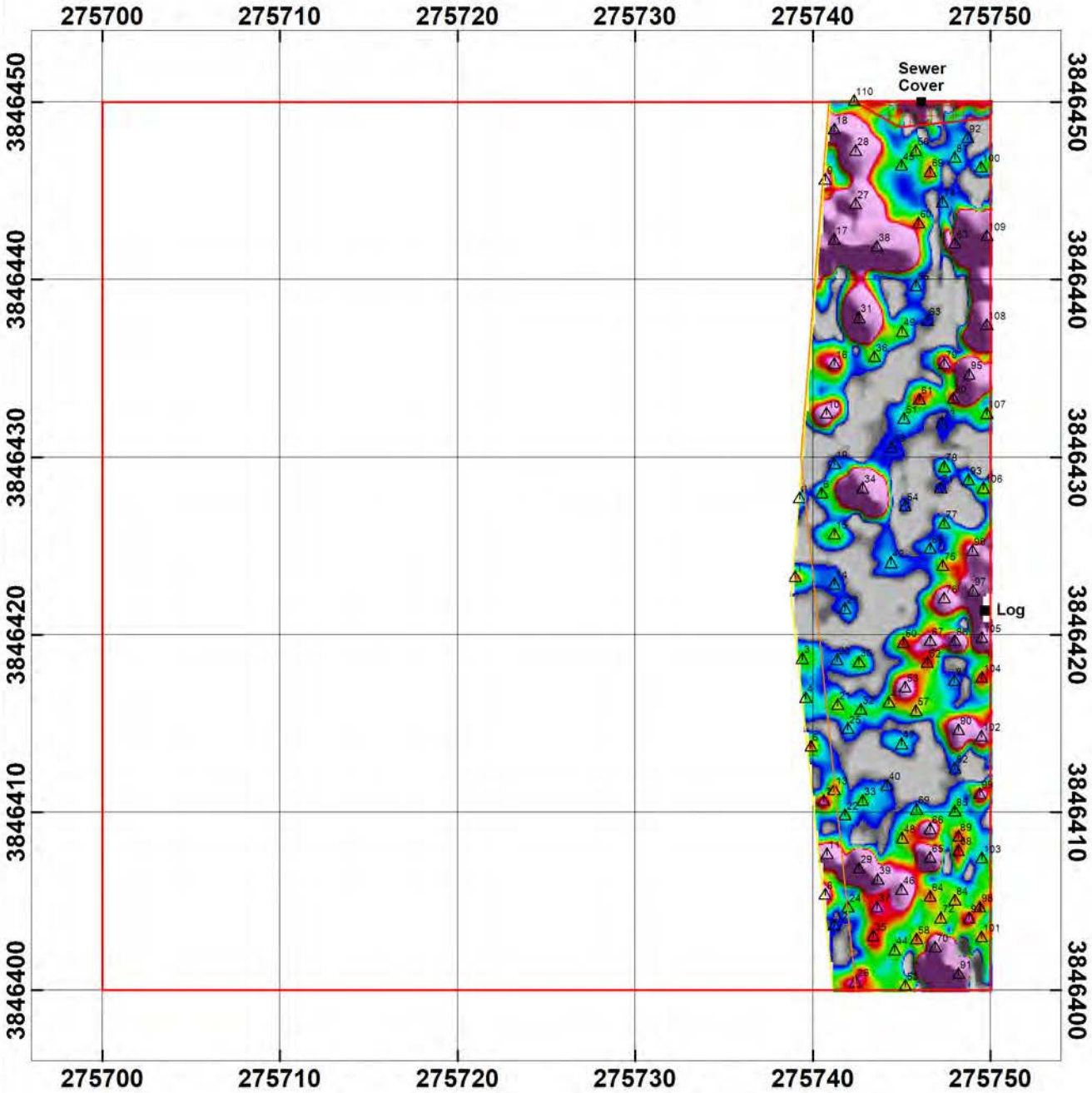
Figure 4



Grid D6A5A9

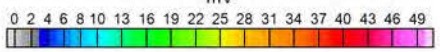
EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Culture
- Saturated Response Area

EM (CH2)
mV



Scale 1:400

5 0 5 10

meters

NAD83 / UTM zone 18N

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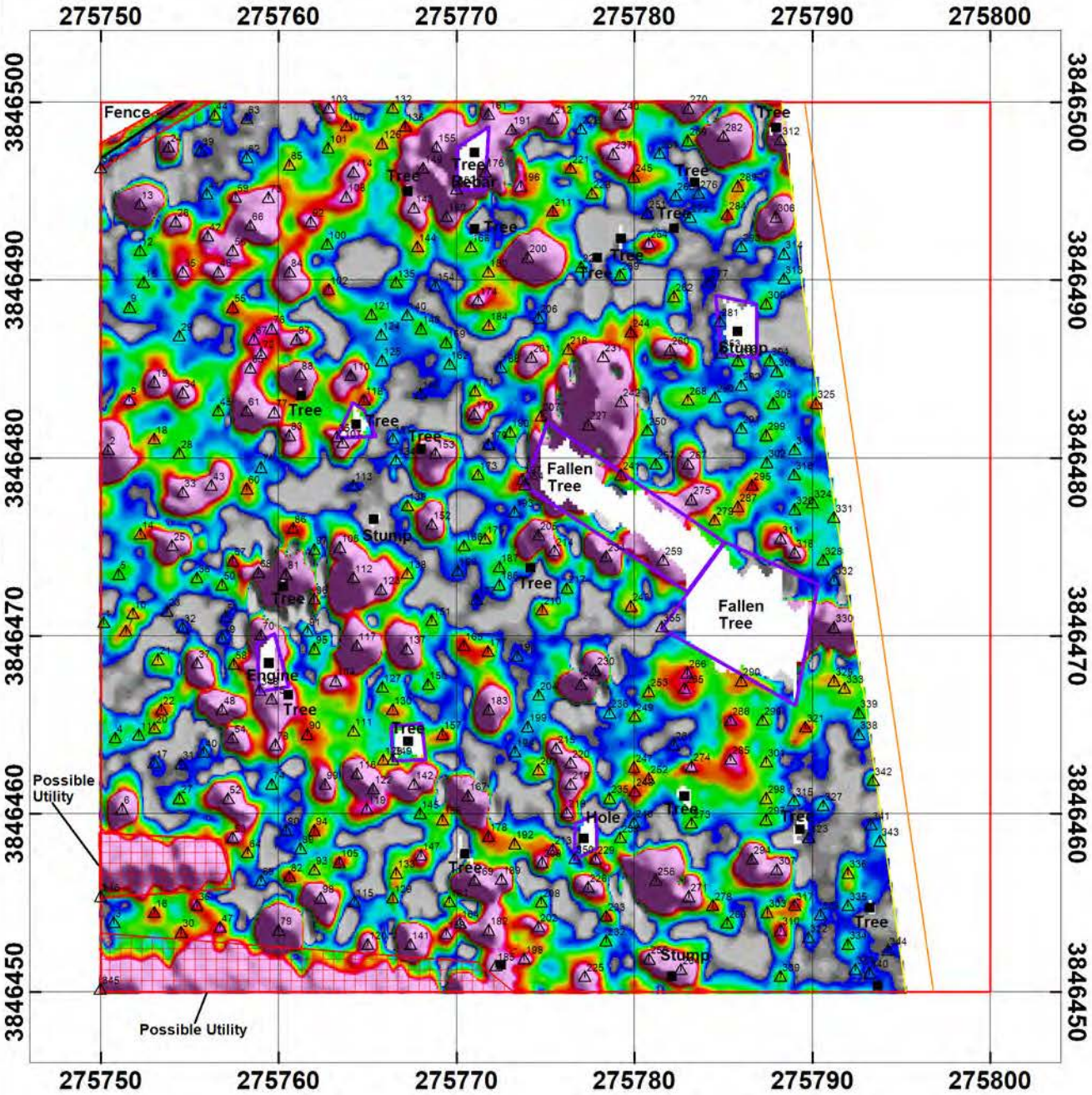
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/01/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

CH2MHILL

Figure 5



Grid D6A5B0

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Feature
- Cultural Obstacle Area
- Saturated Response Area

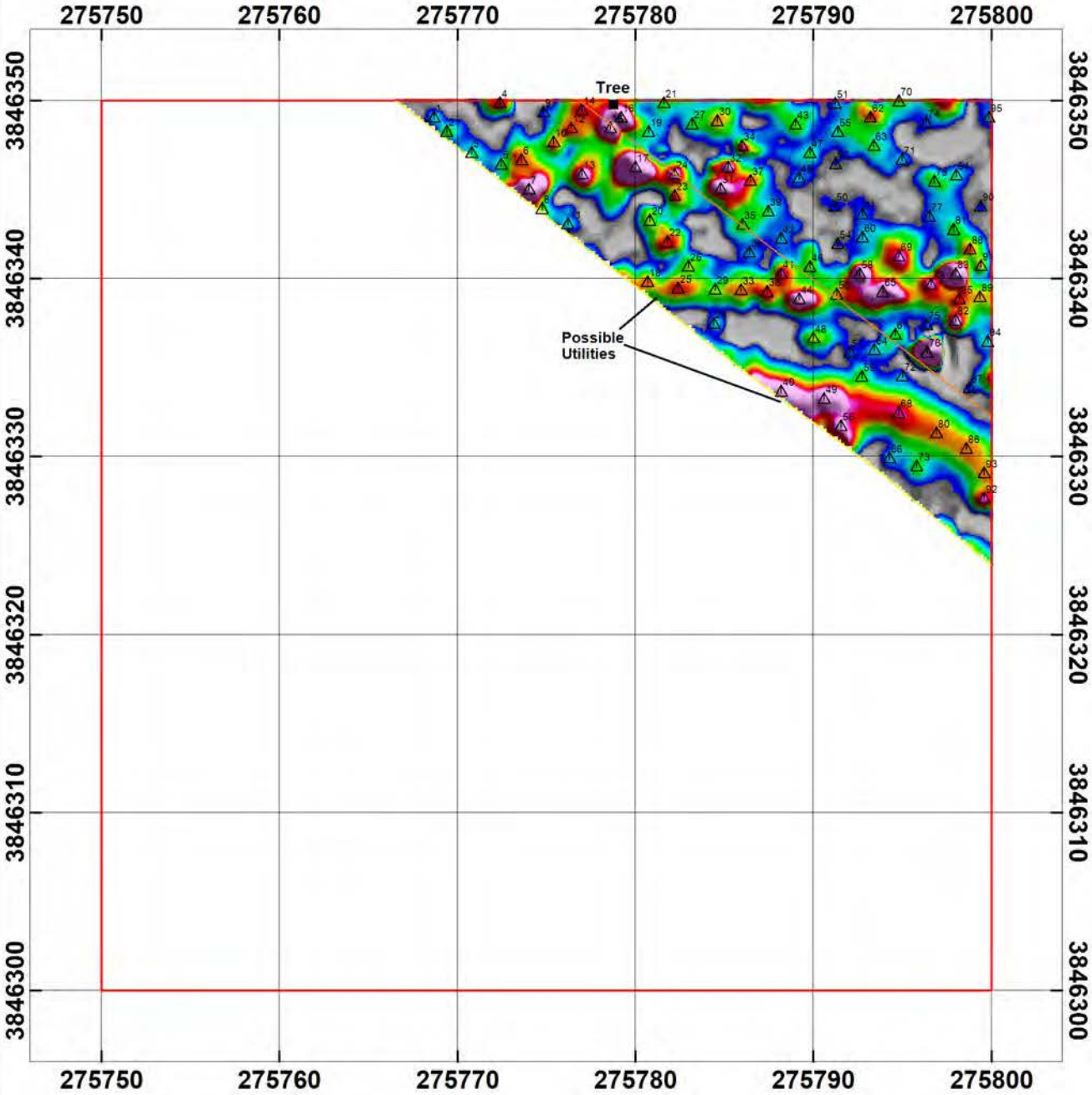
EM (CH4)
mV
0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400
5 0 5 10
meters
NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/03/2012
Created by:	J. Weller
Map Creation Date:	5/08/2012

CH2MHILL

Figure 6



Grid D6A5B7

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Culture

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

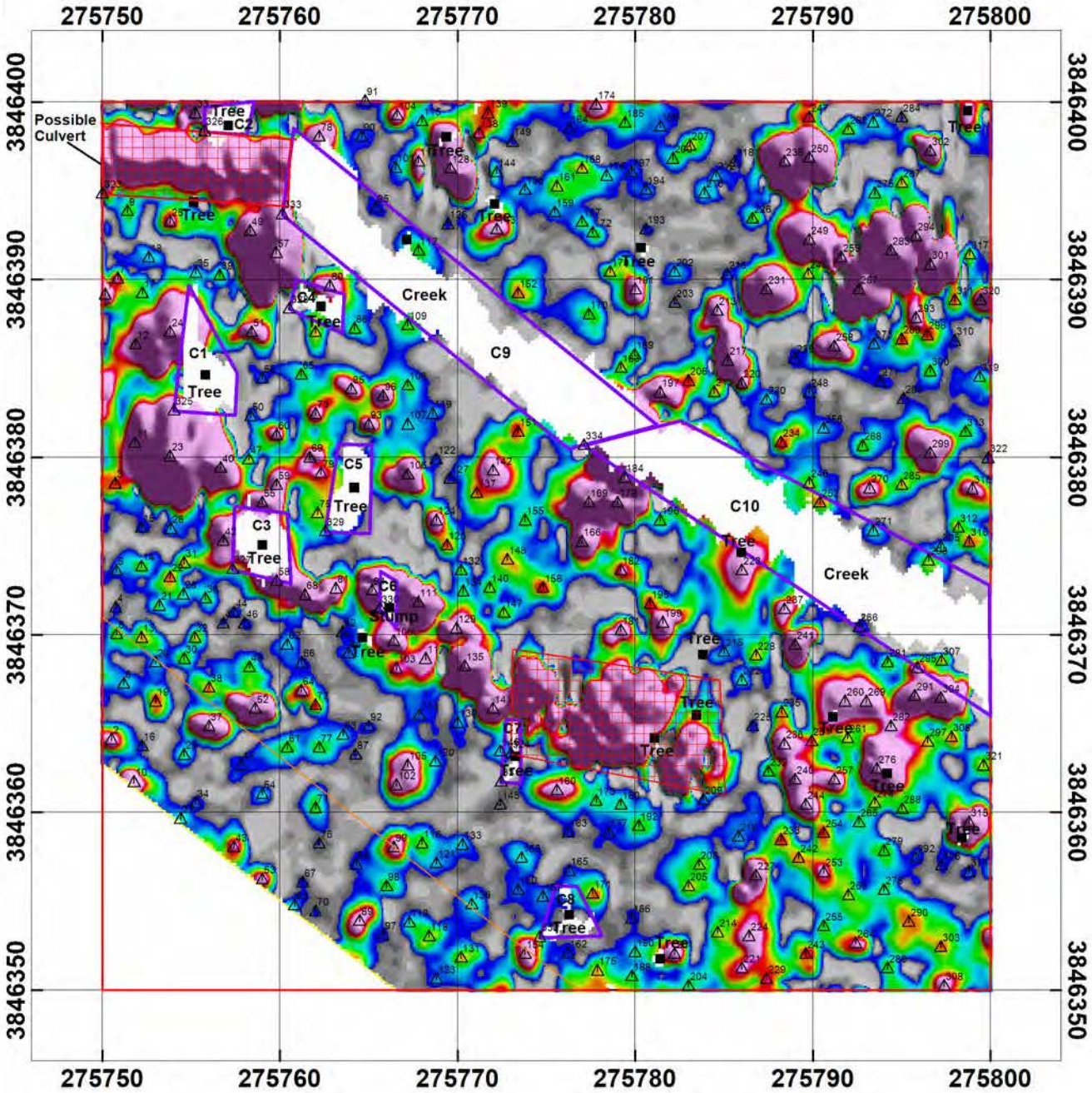
meters

NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/01/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

CH2MHILL

Figure 7



Grid D6A5B8

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Feature
- Cultural Obstacle Area
- Saturated Response Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

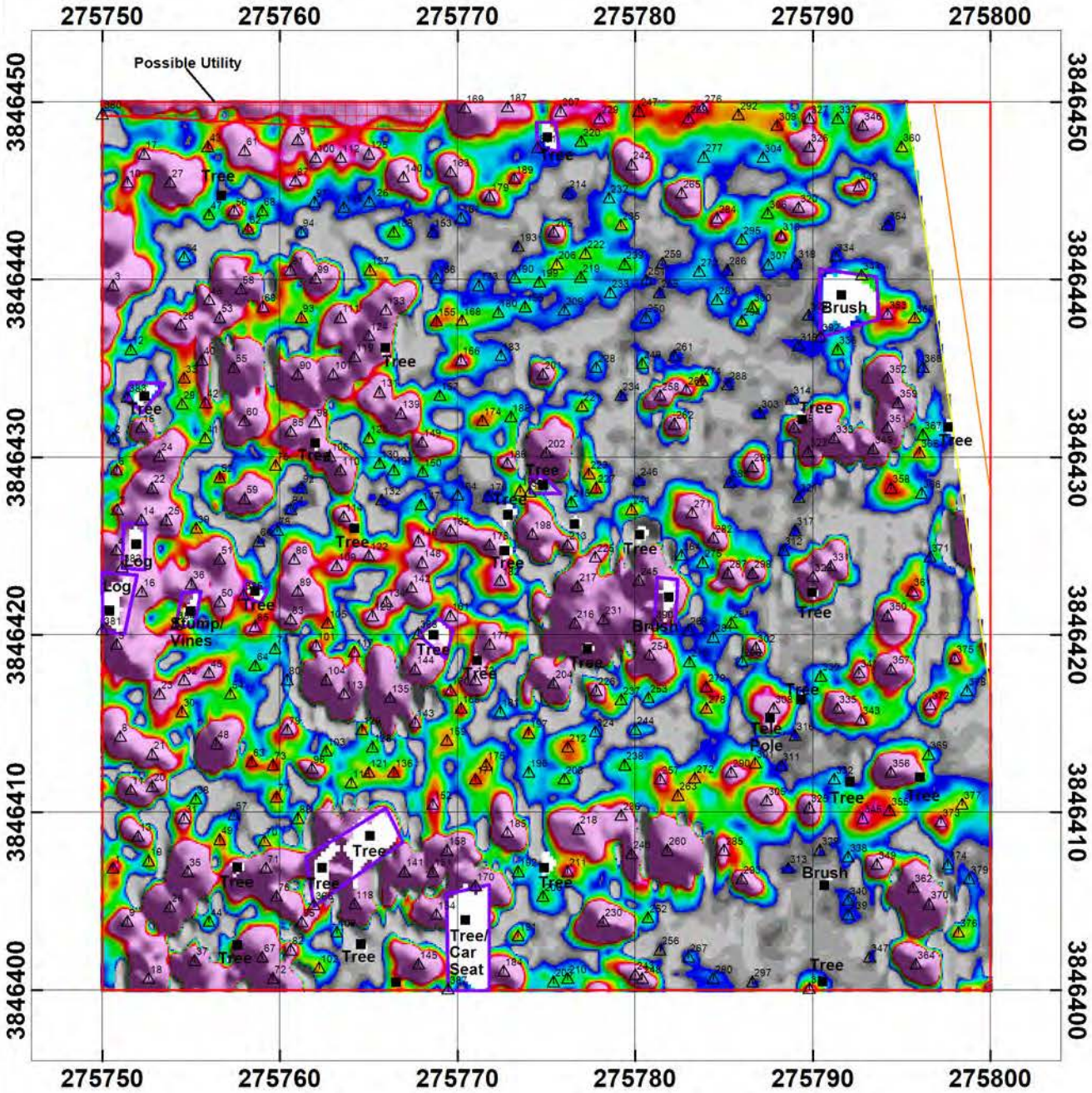
Scale 1:400

5 0 5 10
meters
NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/02/2012
Created by:	J. Weller
Map Creation Date:	5/08/2012

CH2MHILL

Figure 8



Grid D6A5B9

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Feature
- Cultural Obstacle Area
- Saturated Response Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

meters

NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/03/2012
Created by:	J. Weller
Map Creation Date:	5/08/2012

CH2MHILL

Figure 9

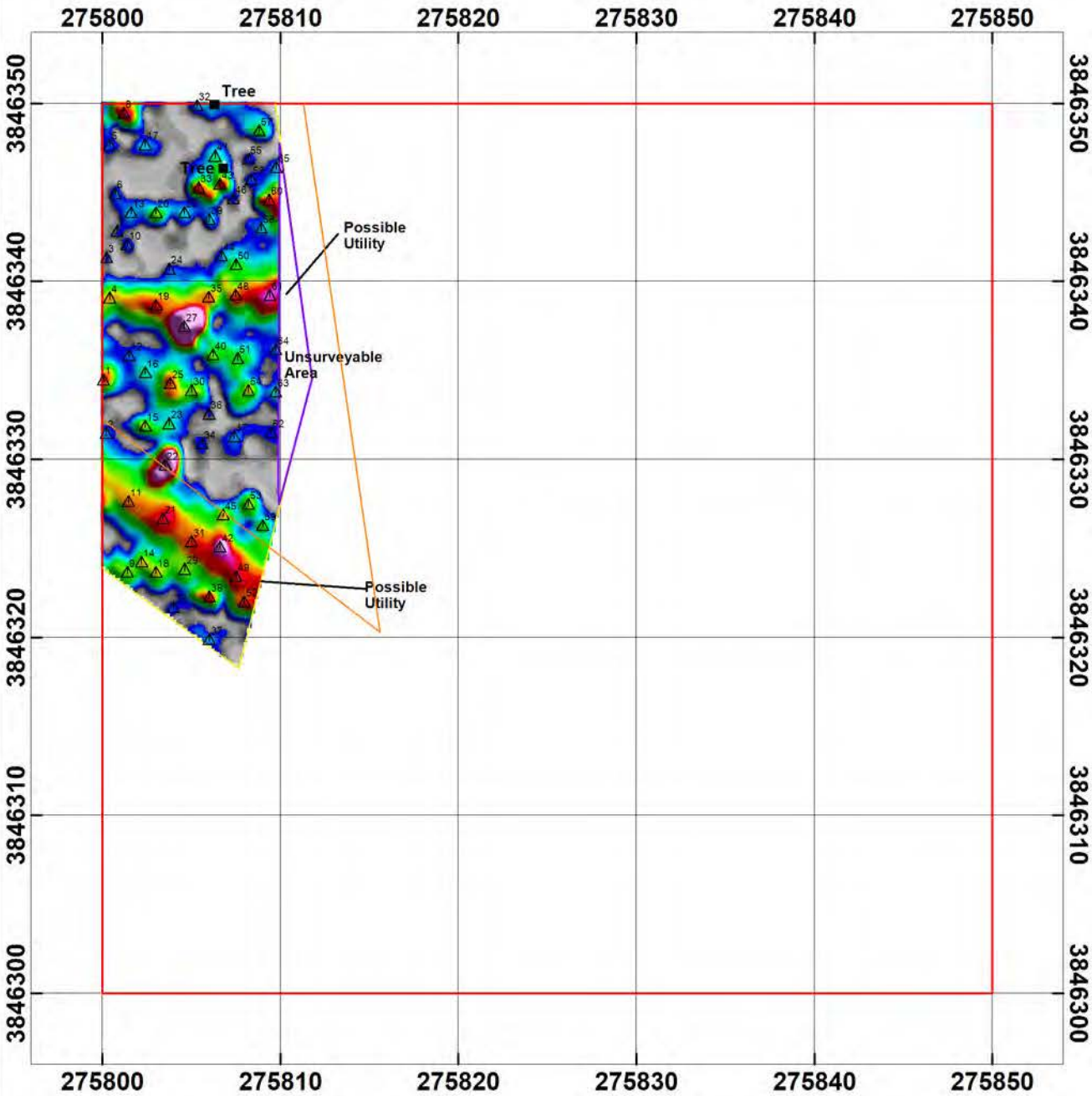


Figure 10

Grid D6A5C7

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Culture
- Cultural Obstacle Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

meters

NAD83 / UTM zone 18N

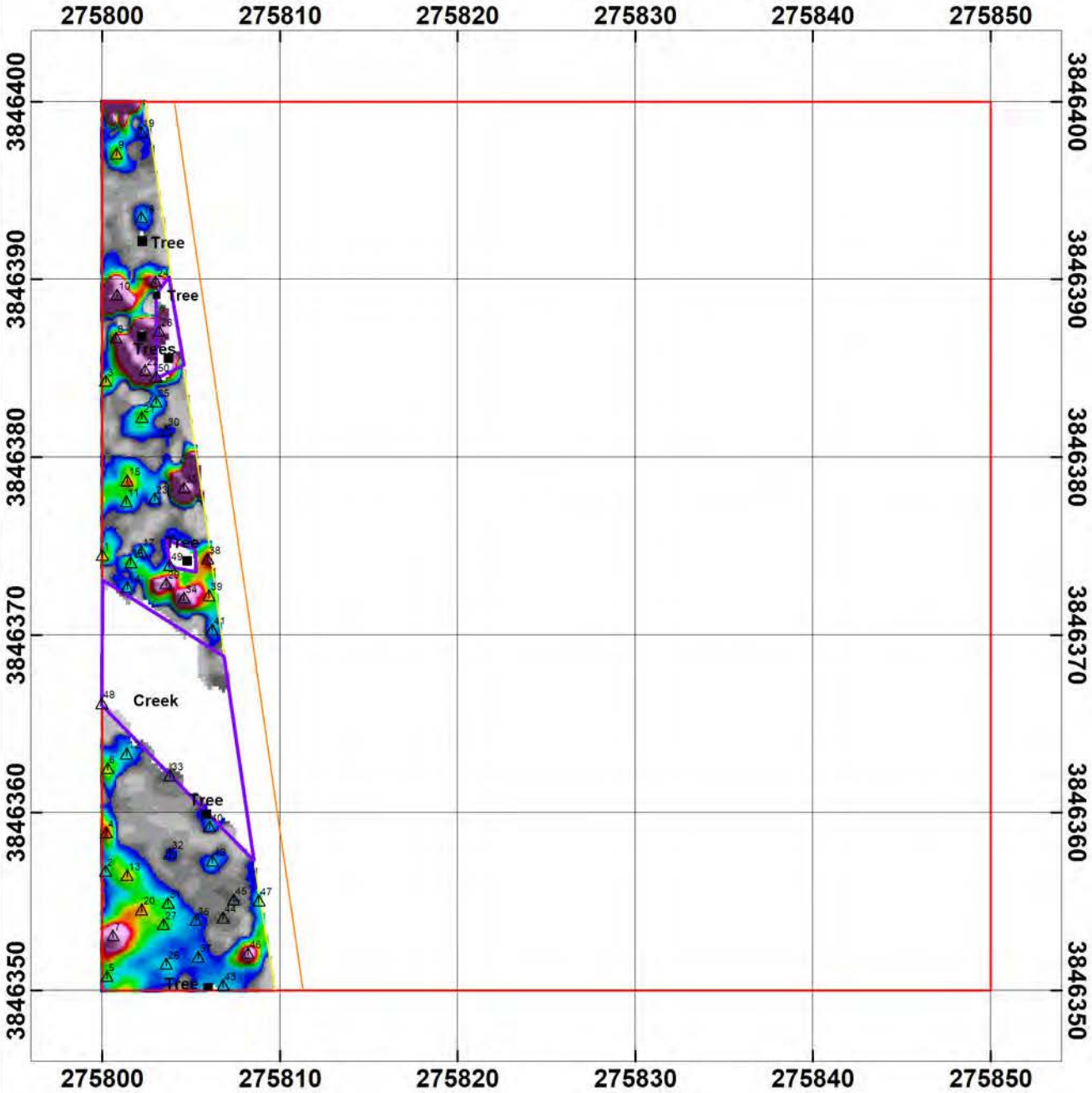
CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/01/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

CH2MHILL

Grid D6A5C8

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC



Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Culture
- Cultural Obstacle Area

EM (CH2)
mV
0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400
5 0 5 10
meters
NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/02/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

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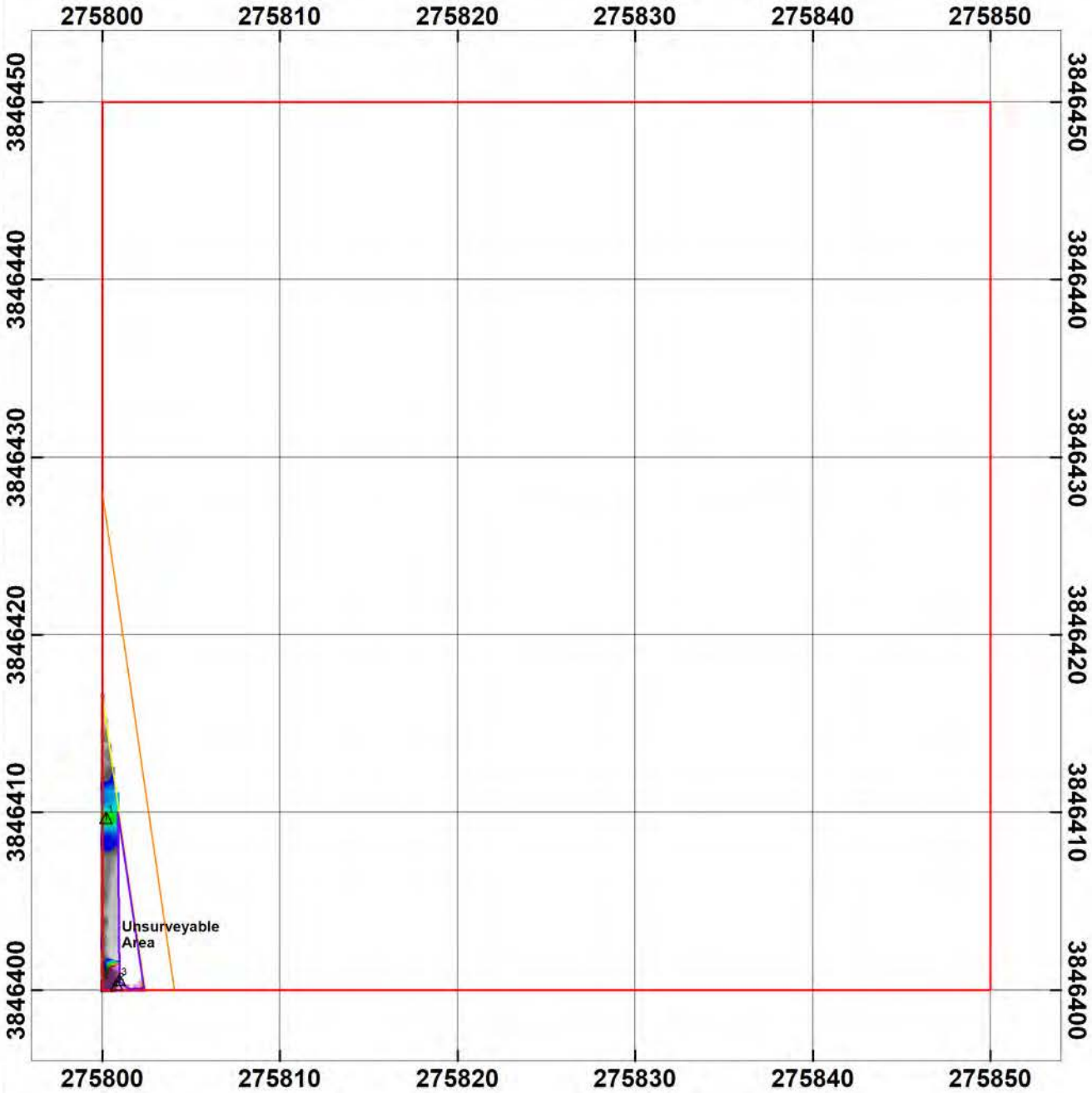
Figure 11



Grid D6A5C9

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC

Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/12)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Obstacle Area

EM (CH2)
mV
0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400
5 0 5 10
meters
NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/03/2012
Created by:	J. Weller
Map Creation Date:	5/07/2012

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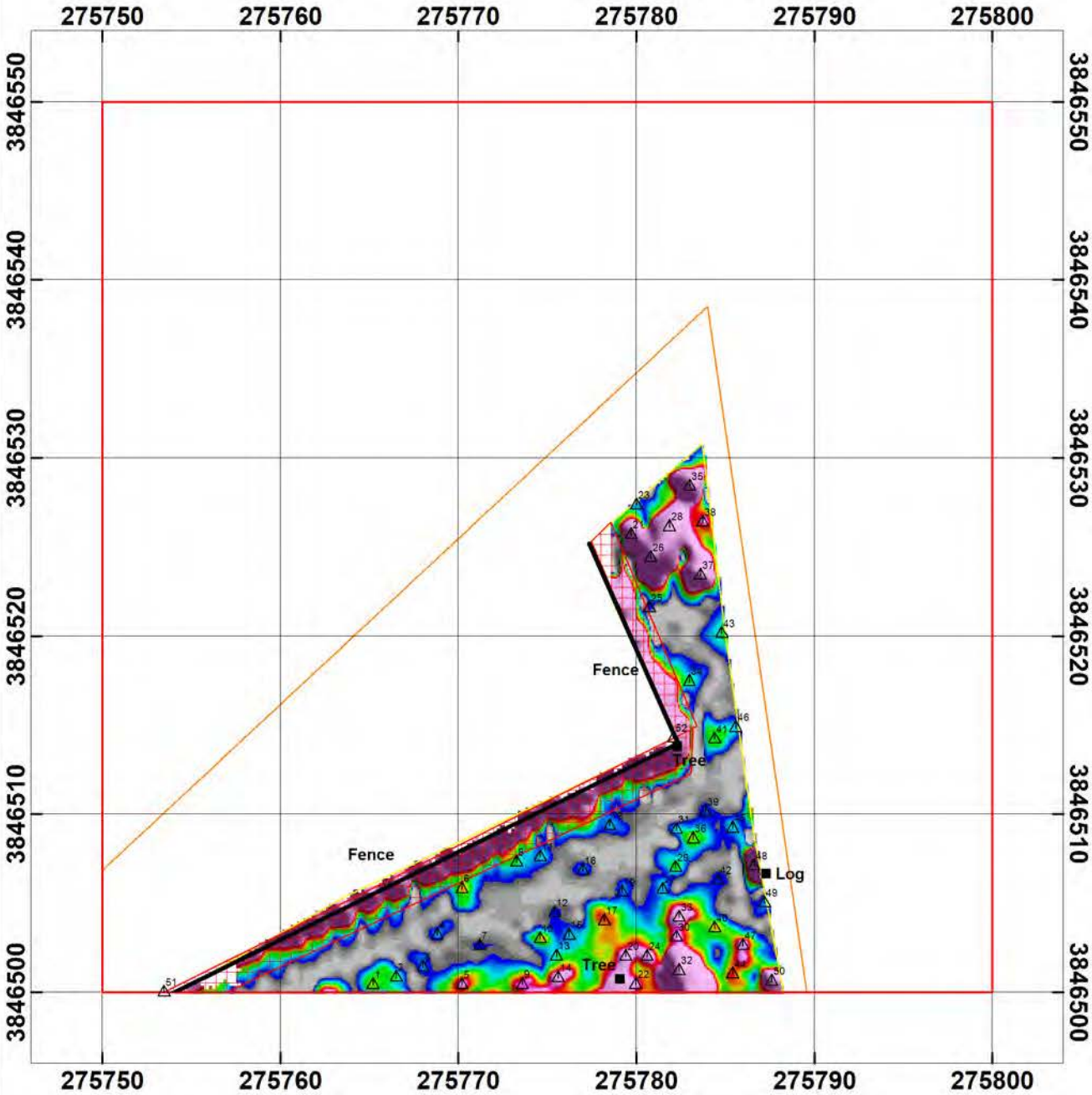
Figure 12

Grid D6A6B1

EM61-MK2 Bottom Coil

Site UXO-24, Camp Geiger Burial Area
Marine Corps Base Camp Lejeune, NC



Legend

- Grid Boundary
- Survey Area Boundary (ECLS, 5/16/23)
- Survey Area Boundary (ECLS, 5/23/12)
- Selected Target
- Cultural Feature
- Fence
- Saturated Response Area

EM (CH2)
mV

0 2 4 6 8 10 13 16 19 22 25 28 31 34 37 40 43 46 49

Scale 1:400

5 0 5 10

meters

NAD83 / UTM zone 18N

CLIENT:	NAVFAC
PROJECT NUMBER:	378849
CONTRACTOR:	CH2M HILL
Survey Date:	5/03/2012
Created by:	J. Weller
Map Creation Date:	4/07/2012

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Figure 13

Attachment A
Geophysical System Verification Report
Site UXO-24
MCIEAST-MCB CAMLEJ, North Carolina

UXO-24 Geophysical System Verification Report

Marine Corps Installations East—Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) North Carolina

Contract Task Order 014

October 2014

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Mid-Atlantic

Under the

NAVFAC CLEAN 1000 Program
Contract N62470-08-D-1000

Prepared by

14120 Ballantyne Corporate Place, Suite 200
Charlotte, North Carolina 28277

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1.2 IVS Survey 4
1.3 Results 4
1.4 Quality Control and Measurement Quality Objectives 7
1.5 Blind Seeding Program 7
1.6 Conclusions 7

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2 IVS Measurement Quality Objectives 7

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3 IVS As-Built Layout 3
4 IVS Survey Results 5
5 IVS Channel 2 Response Compared to the Predicted Small ISO Response – Vertical Item 6
6 IVS Channel 2 Response Compared to the Predicted Small ISO Response – Horizontal Items 6

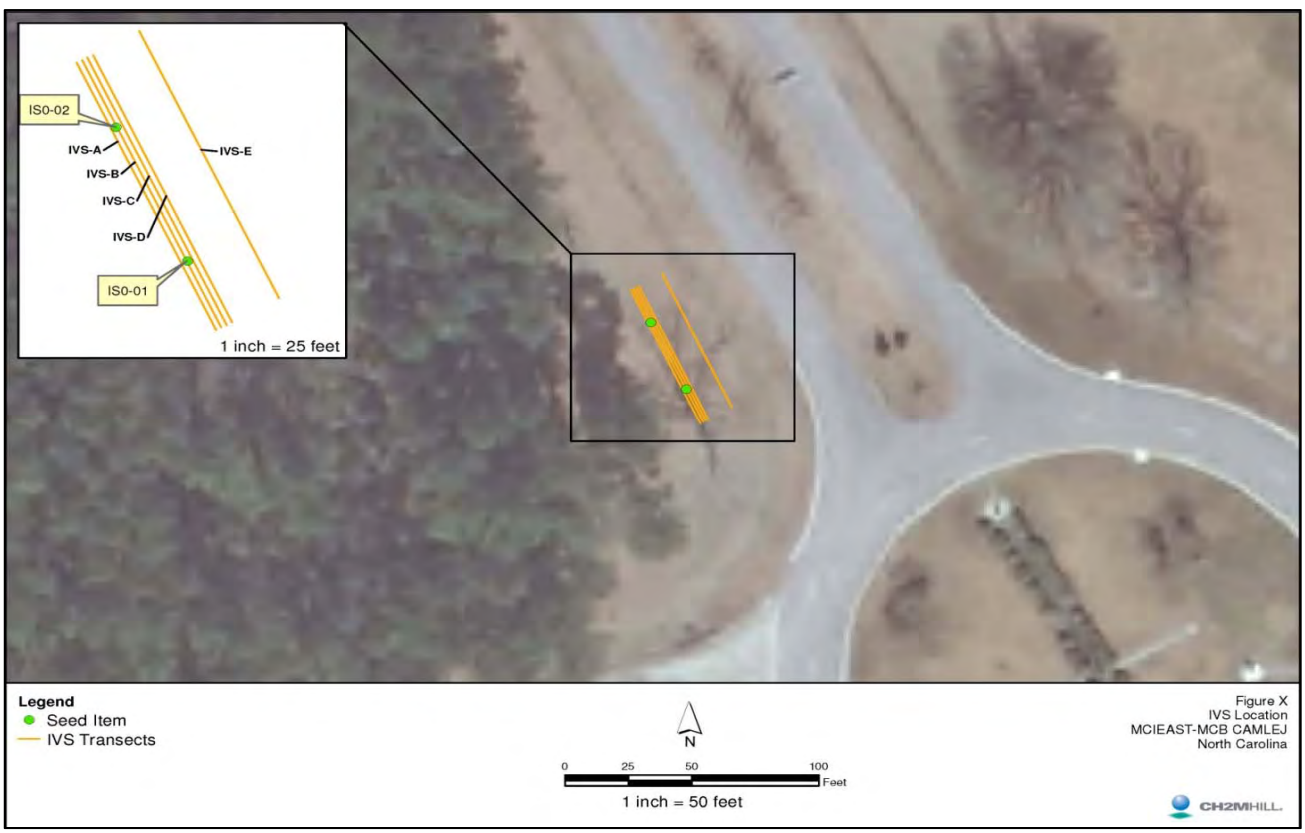
1 UXO-24 Geophysical System Verification Report

This attachment to the *MCB CamLej UXO-24 DGM Final Report* documents the geophysical system verification (GSV) for the investigation to locate munitions and explosives of concern and material potentially presenting an explosive hazard in the subsurface at Site UXO-24, Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) in North Carolina. CH2M HILL used a two-stage physics-based verification process in which signal strength and sensor performance were demonstrated initially by static and dynamic tests on a test strip and throughout the survey with a blind seeding program. The initial phase involved verification of the person-portable Geonics, Ltd. EM61-MK2 digital geophysical mapping (DGM) system using an instrument verification strip (IVS), while the second phase involved the burial of two small industry standard objects (ISOs) within the survey area to demonstrate the continued effectiveness of the system and the survey methodology. The GSV process followed the *Geophysical System Verification Work Plan, Preliminary Assessment/Site Inspection; Unexploded Ordnance (UXO) Site UXO-24, Camp Geiger Burial Area,* Appendix A of the *Geophysical Investigation Plan, Preliminary Assessment/Site Inspection; Unexploded Ordnance (UXO) Site UXO-24, Camp Geiger Burial Area* (CH2M HILL, 2012).

1.1 IVS Location

On Monday, April 30, 2012, the CH2M HILL project geophysicist and field geophysicist conducted a DGM survey with the EM61-MK2 at the IVS previously established near Site UXO-26, shown in **Figure 1**. Positioning for both the IVS survey and the production DGM survey was accomplished using the fiducial method, where digital marks were inserted into the recorded data files at locations previously recorded by a licensed North Carolina professional land surveyor—LDSI, Inc.[1]

FIGURE 1
IVS Location



[1] All coordinates reported in this document and in the IVS data are accurate to the North American Datum of 1983 (NAD83) Universal Transverse Mercator (UTM) Zone 18 North (meters) system.

Small ISOs, shown in **Figure 2**, were used as test items in the IVS. The original IVS constructed for UXO-26 contained three buried small ISOs; however, one was removed prior to the Site UXO-24 IVS survey, leaving two test items for verification of the Site UXO-24 geophysical system. The locations, depths, and orientations of the remaining seed items are shown in **Table 1**. An as-built map of the IVS is shown as **Figure 3**.

FIGURE 2
Small Industry Standard Object

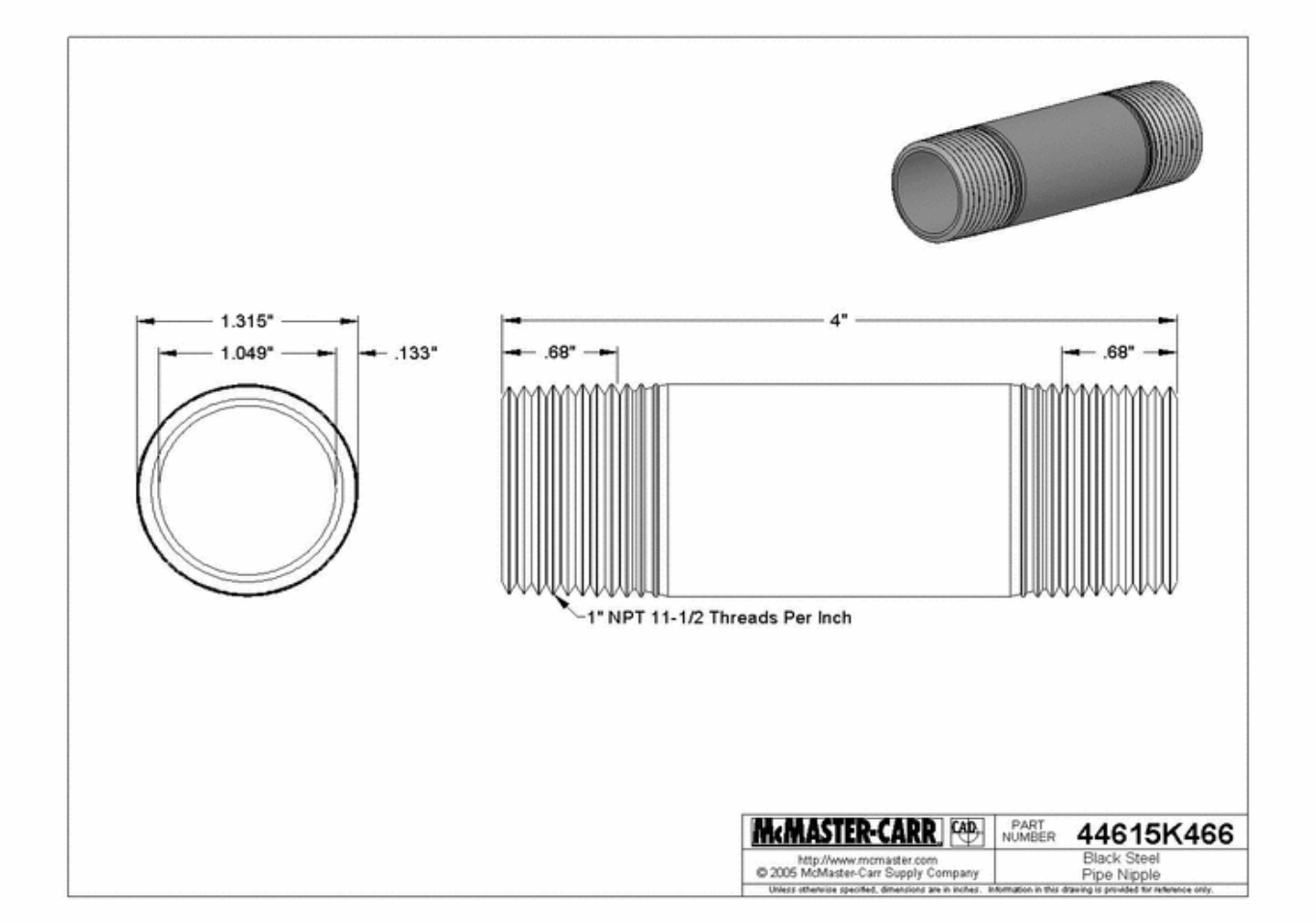


FIGURE 3
IVS As-built Layout

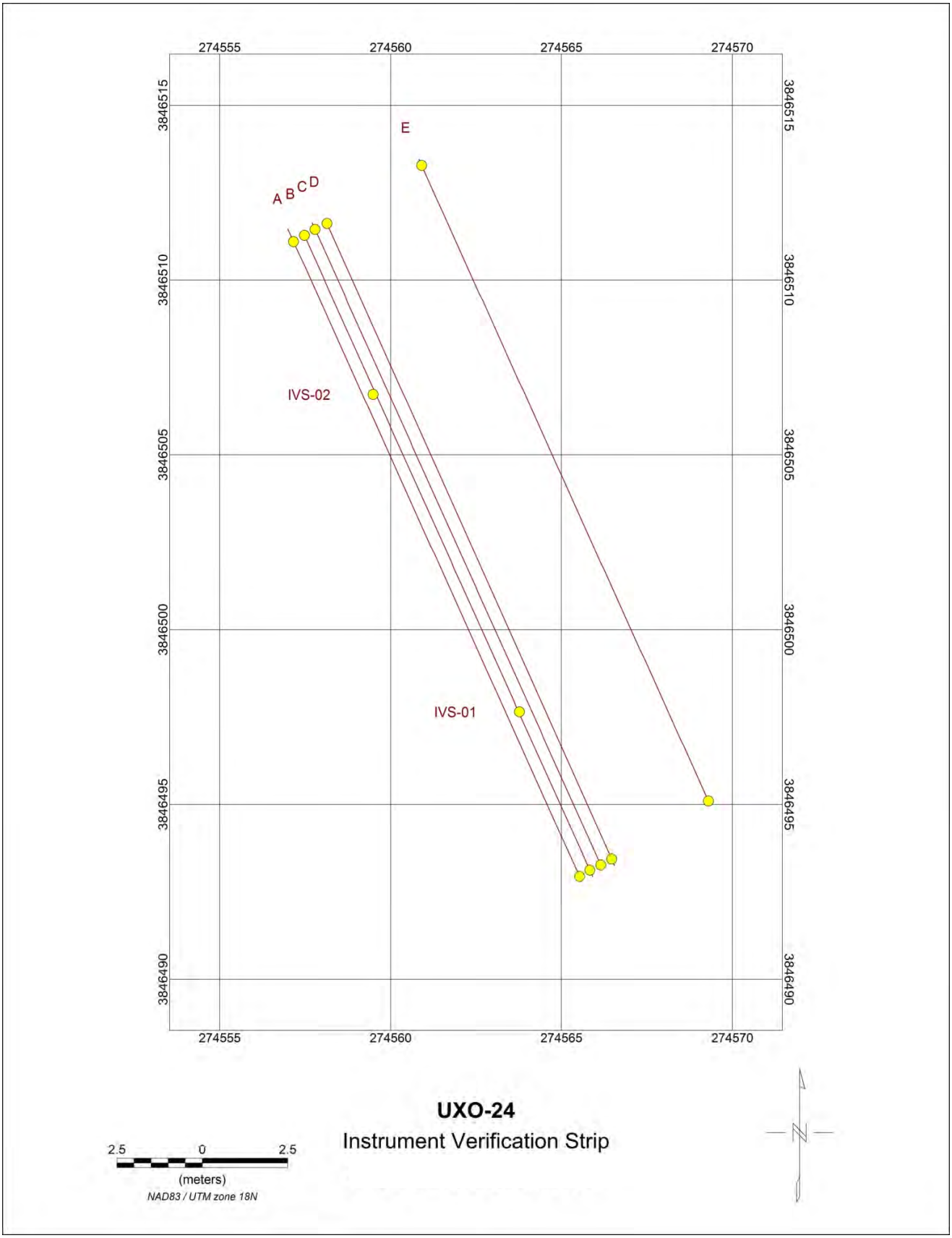


TABLE 1
IVS Survey Coordinates and Locations

Point ID	Easting (m)[1]	Northing (m)[1]	Item Depth[2] (cm)	Item Orientation	Description
IVS-001	274563.77	3846497.65	15	Vertical	Small ISO
IVS-002	274559.49	3846506.73	15	Horizontal, Perpendicular to Direction of Travel	Small ISO

Notes:

[1] All coordinates in North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM), Zone 18N, Meters.

[2] Measured from ground surface to center of mass of item.

cm = centimeter

1.2 IVS Survey

The EM61-MK2 system was used to collect data along the IVS survey lines shown in **Figure 3**. All data are provided on the CD accompanying the *MCIEAST-MCB CAMLEJ Site UXO-24 DGM Final Report*.

Because of inherent errors associated with depth measurements from a non-uniform ground surface, the IVS survey results are semiqualitative in nature. As part of the QC testing and measurement quality objectives (MQO) analysis, a small ISO item was also placed on a stand at 46 centimeters above the center of the EM61-MK2 transmit coil, and the response was recorded to provide a qualitative measure of the system's response to the small ISO.

1.3 Results

The results of the IVS survey are shown in **Figure 4**. **Figures 5 and 6** illustrate the amplitude response for each of the IVS seeds plotted against the predicted responses with 20 percent lower and upper bounds. Results of the QC tests (ISO placed horizontally at 46 centimeters above the center of the coil) are also plotted on the figures.

Responses from the IVS seeds vary from the predicted values because of variables that intrinsically inject error into the measurement, including the following:

- Depth measurement: If terrain is not completely flat around excavated holes, an average of the ground level must be determined in the field, resulting in differences of up to several centimeters.
- Instrument path: While the instrument operator attempts to maintain a direct path over the seeded items, slight variation to either side can impact the measured response.
- Measurement location: Because the instrument records are at set measurement intervals, the actual measured response may not be directly over the item when it is at the measurement location used to predict the response curve.
- Instrument "bounce": Unless terrain is absolutely flat around the seeded item location, the transmit/receive coil can vary in height above the ground surface by several centimeters from the height used to predict the response curve.

Because there is limited ability to control the four discussed error variables, the primary measure of the instrument response is the static test with the ISO at a strictly controlled distance from the transmit/receive coil, which matched (within the MQO of 20 percent) the expected response. The survey over the IVS seeds is a secondary measure and can be used to demonstrate kinematic (in motion) detection of the ISOs, demonstrate appropriate falloff of response from deeper items, measure representative background response, and demonstrate positioning system accuracy under kinematic conditions.

FIGURE 4
IVS Survey Results

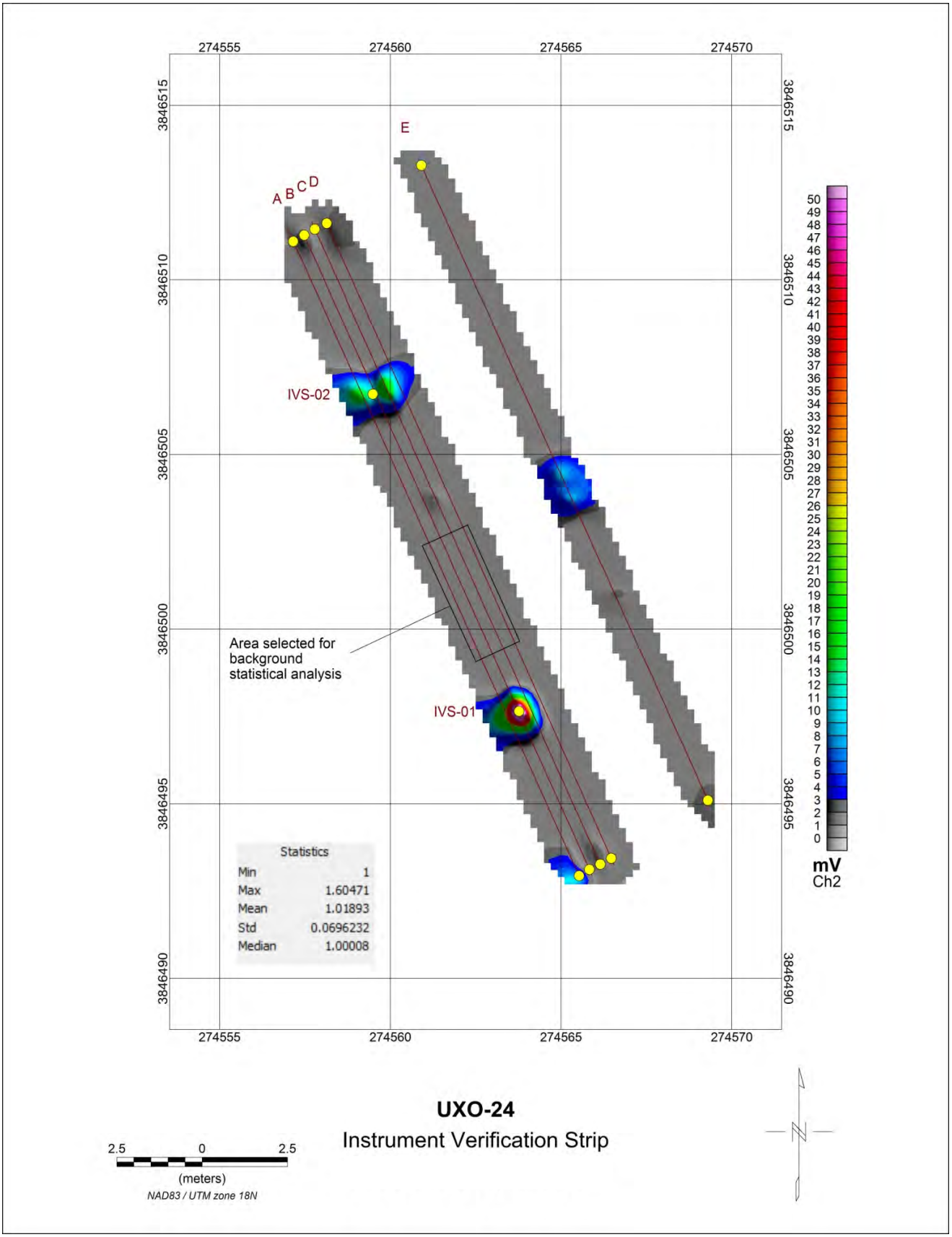


FIGURE 5
IVS Channel 2 Response Compared to the Predicted Small ISO Response—Vertical Item

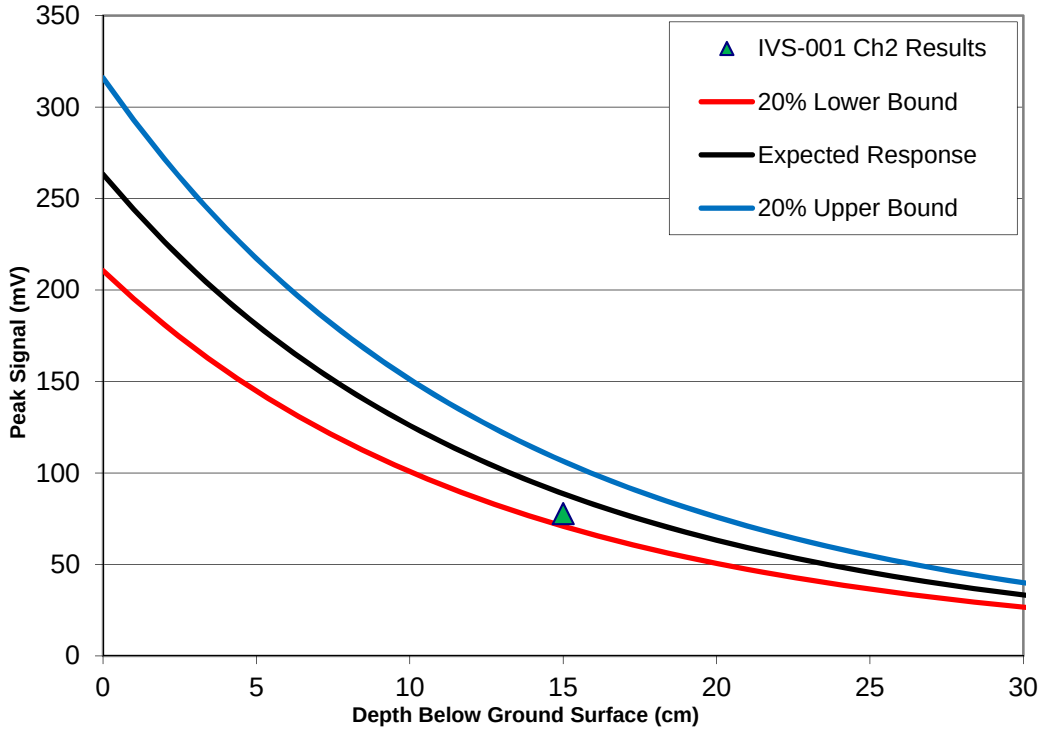
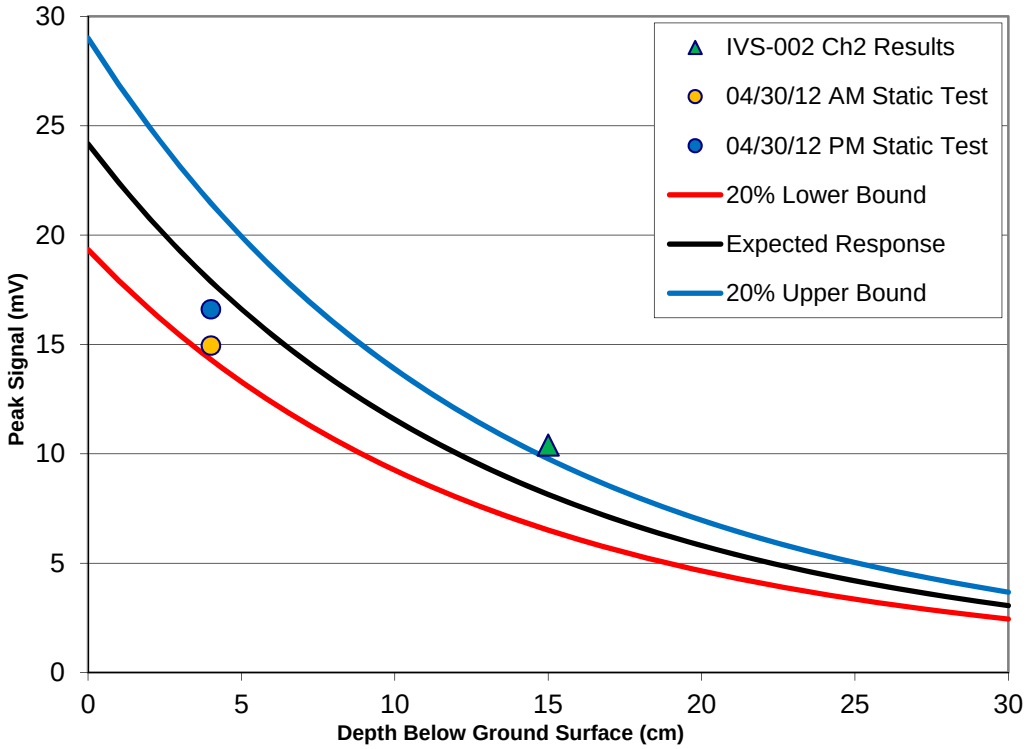


FIGURE 6
IVS Channel 2 Response Compared to the Predicted Small ISO Response—Horizontal Items



Based on the IVS survey, the geophysical background is generally low. A polygon (shown on **Figure 4**) that appears to be representative of the general background data was selected for statistical analysis from the IVS background survey. Statistical results derived in Geosoft Oasis Montaj from the channel 2 data indicate maximum and minimum values of 1.60 millivolts (mV) and 1.00 mv, respectively, with a mean of 1.02 mV and a standard deviation of 0.07 mV. Although it is not possible to suggest that this is representative of the entire site, it is a starting point for determining anomaly selection criteria.

The following approach was adopted for anomaly selection:

1. Use a baseline threshold of 3 mV on Channel 2 for EM61-MK2 surveys if anomaly has good decay and profile shape.[2]
2. Select additional anomalies between 2 and 3 mV if they clearly represent metallic items (very low background noise, good decay and profile shape).
3. Re-evaluate and adjust selection criteria if background noise on any particular transect or area is significantly higher than that observed in the IVS.

1.4 Quality Control and Measurement Quality Objectives

All QC tests were performed as specified in the project work plan, with no discrepancies noted. All data are provided on the CD accompanying the *MCIEAST-MCB CAMLEJ Site UXO-24 DGM Final Report*. The MQOs, measurement performance criteria, and test methods established for the IVS are summarized in **Table 2**.

TABLE 2
IVS Measurement Quality Objectives

Data Quality Objective	Measurement Performance Criteria	Test Method During IVS
General System Verification		
DGM System Positioning. Accurate coordinates are being obtained during DGM survey.	Positional error of ISO seeds will not exceed 25 centimeters (9.8 inches).	Results of IVS DGM survey versus IVS seed locations were evaluated to ensure compliance.
DGM System Munitions Detection. DGM system response is within industry standards for detection.	Response to ISO is comparable to published or calculated results for that item. Response to standardized item will not vary more than ±20 percent of expected value in static test.	Results of IVS surveys over seed items in strip were qualitatively reviewed. Results of static test were quantitatively reviewed to ensure compliance.
Data Handling		
All data must be delivered in a timely manner and in a useable format.	IVS data are completed and delivered within 12 hours.	Evaluated based on actual delivery of data.

[1] NRL/MR/6110--09-9183 (Shown on Figures 5 and 6)

1.5 Blind Seeding Program

Two ISOs were buried within the Site UXO-24 survey area as ongoing verification of the geophysical system and methodology. The locations of the QC seed items were known only to CH2M HILL quality control personnel. Both seed items were identified and selected as target anomalies during the DGM survey.

1.6 Conclusions

CH2M HILL performed an IVS survey to verify DGM equipment before use of the system for surveys within Site UXO-24 at MCIEAST-MCB CAMLEJ. The system was verified as being within industry standards and meeting project MQOs. A recommended approach for anomaly selection has been provided for discussion

[2] While there are no absolute measures for good decay and profile shape, and the experience of the data processor is important in determining decay and profile shape, the general measures are that the amplitude of each subsequent channel (Channels 1 through 4) is less than the previous channel, and the shape falls off in a parabolic shape to either side of the anomaly.

and agreement with the project team. All blind QC seed items emplaced in the Site UXO-24 survey area were identified during the DGM survey and selected as target anomalies.

Appendix C
Analytical Data Tables

Appendix C

Subsurface Soil Sample Exceedances

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Station ID	**Background Developed SB Combined Soil Types**	**CLEAN NCSSL**	**RSL Industrial Soil Adjusted**	**RSL Residential Soil Adjusted**	MR24-IS01	MR24-IS02	MR24-IS03	MR24-IS04	MR24-IS05		MR24-IS06
Sample ID					MR24-IS01-4-5-13C	MR24-IS02-4-5-13C	MR24-IS03-4-5-13C	MR24-IS04-1-2-13C	MR24-IS05-4-5-13C	MR24-IS05D-4-5-13C	MR24-IS06-4-5-13C
Sample Date					07/02/13	07/02/13	07/02/13	07/02/13	07/02/13	07/02/13	07/02/13
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/kg)											
4,4'-DDE	2.46	240	5,100	1,400	0.47 J	0.5 U	0.46 U	13 J	0.38 J	0.83 J	3.7 J
4,4'-DDT	4.5	340	7,000	1,700	0.48 U	0.5 U	0.46 U	5.3	0.45 U	0.23 J	1.4 J
Dieldrin	1.61	0.81	110	30	0.48 U	0.82 J	0.46 U	4.4 J	0.45 U	0.45 U	0.51 U
gamma-Chlordane	0.281	68	6,500	1,600	0.36 J	0.5 U	0.46 U	0.48 U	0.45 U	0.45 U	0.51 U
Herbicides (µg/kg)											
No Detections											

Notes:

Shading indicates exceedance of Camp Lejeune background values as applicable to developed subsurface soil (combined soil types) (August 2011).

Bold box indicates exceedance of North Carolina Soil Screening Levels (February 2012).

J - Analyte present, value may or may not be accurate or precise

U - The material was analyzed for, but not detected

UJ - Analyte not detected, quantitation limit may be inaccurate

µg/kg - Micrograms per kilogram

Appendix C

Surface Soil Sample Exceedances

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Post Detonation Soil Sample

Station ID	Background Developed SS Combined Soil Types	CLEAN NCSSL	RSL Industrial Soil Adjusted	RSL Residential Soil Adjusted	MR24-IS01	MR24-IS02	MR24-IS03		MR24-IS04	MR24-IS09
Sample ID					MR24-SS01-13C	MR24-SS02-13C	MR24-SS03-13C	MR24-SS03D-13C	MR24-SS04-13C	MR24-SS09-13C
Sample Date					07/02/13	07/02/13	07/02/13	07/02/13	07/02/13	08/22/13
Chemical Name										
Pesticide/Polychlorinated Biphenyls (µg/kg)										
4,4'-DDE	78.4	240	5,100	1,400	1 J	21 J	4.3	2.4 J	0.72 J	NA
4,4'-DDT	49.8	340	7,000	1,700	1.6 J	11	5.5 J	2.9 J	0.7 J	NA
Dieldrin	1.26	0.81	110	30	0.49 U	3.5 J	1.8 J	1.2 J	1.3 J	NA
Herbicides (µg/kg)										
No Detections					NA	NA	NA	NA	NA	NA
Explosives (µg/kg)										
No Detections					NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)										
Aluminum	25,000	--	99,000	7,700	NA	NA	NA	NA	NA	1,350
Arsenic	2.42	5.8	2.4	0.61	NA	NA	NA	NA	NA	0.755
Barium	33.8	580	19,000	1,500	NA	NA	NA	NA	NA	3.78
Calcium	3,790	--	--	--	NA	NA	NA	NA	NA	67.2 J
Chromium	23.1	3.8	5.6	0.29	NA	NA	NA	NA	NA	3.1
Cobalt	--	0.9	30	2.3	NA	NA	NA	NA	NA	0.251 J
Copper	2.5	700	4,100	310	NA	NA	NA	NA	NA	8.93
Iron	11,100	150	72,000	5,500	NA	NA	NA	NA	NA	1,670
Lead	20.2	270	800	400	NA	NA	NA	NA	NA	9.51
Magnesium	--	--	--	--	NA	NA	NA	NA	NA	32.7 J
Manganese	18.3	65	2,300	180	NA	NA	NA	NA	NA	2.56
Nickel	2.73	130	2,000	150	NA	NA	NA	NA	NA	0.557
Potassium	--	--	--	--	NA	NA	NA	NA	NA	59.8 J
Selenium	0.896	2.1	510	39	NA	NA	NA	NA	NA	0.339 J
Vanadium	34.1	6	510	39	NA	NA	NA	NA	NA	5.23
Zinc	16.2	1,200	31,000	2,300	NA	NA	NA	NA	NA	6.2

Notes:

Shading indicates exceedance of Camp Lejeune background values as applicable to developed surface soil (combined soil types (August 2011).

Bold box indicates exceedance of North Carolina Soil Screening Levels (February 2012).

Underline indicates exceedance of Adjusted Residential Soil RSLs (November 2013).

NA - Not analyzed

J - Analyte present, value may or may not be accurate or precise

U - The material was analyzed for, but not detected

UJ - Analyte not detected, quantitation limit may be inaccurate

mg/kg - Milligrams per kilogram

µg/kg - Micrograms per kilogram

Appendix D
MEC Intrusive Data

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5A0-00001	D6A5A0	73.42	7/26/2013	275740.94	3846453.28	Cultural Debris	Scrap	Pipe	N/A	N/A	1	12	1		.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00002	D6A5A0	342.18	7/29/2013	275741.44	3846456.11	Cultural Debris	Scrap	Pipe	N/A	N/A	3	8	6		10		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A5A0-00003	D6A5A0	23.83	7/26/2013	275741.64	3846458.11	Cultural Debris	Scrap	Nails	N/A	N/A	6	3	0.1		6		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A5A0-00004	D6A5A0	3.18	7/26/2013	275742.3	3846469.44	Cultural Debris	Scrap	Nails	N/A	N/A	1	0	0.1		3				Scrap Bin	None		7/23/2013	3
D6A5A0-00005	D6A5A0	263.76	7/26/2013	275742.64	3846451.91	Cultural Debris	Scrap	Construction Debris	N/A	N/A	1	9	20		11		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A5A0-00006	D6A5A0	157.25	7/29/2013	275742.64	3846454.91	Cultural Debris	Scrap	Pipe, construction debris	N/A	N/A	3	12	20		21		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A5A0-00007	D6A5A0	24.27	7/26/2013	275742.64	3846472.11	Cultural Debris	Scrap	Nails	N/A	N/A	5	8	2		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00008	D6A5A0	12.85	7/26/2013	275742.77	3846474.19	Cultural Debris	Scrap	Nails, bolts	N/A	N/A	6	3	1		2				Scrap Bin	None		7/23/2013	3
D6A5A0-00009	D6A5A0	9	7/26/2013	275743.64	3846481.31	Cultural Debris	Scrap	Nails, wire	N/A	N/A	3	9	0.1		4.1				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00010	D6A5A0	9.46	7/26/2013	275743.74	3846467.74	Cultural Debris	Scrap	Nails	N/A	N/A	1	2	0.1		1.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00011	D6A5A0	3.01	7/26/2013	275743.82	3846470.01	Cultural Debris	Scrap	Nails	N/A	N/A	1	0	0.1		2.1				Scrap Bin	None		7/23/2013	3
D6A5A0-00012	D6A5A0	130.95	7/26/2013	275743.84	3846486.44	Cultural Debris	Scrap	Rebar, pipe, stake	N/A	N/A	3	12	10		2.2				Scrap Bin	None		7/23/2013	3
D6A5A0-00013	D6A5A0	9.13	7/26/2013	275743.84	3846474.71	Cultural Debris	Scrap	Nails	N/A	N/A	3	6	1		2.4				Scrap Bin	None		7/23/2013	3
D6A5A0-00014	D6A5A0	22.15	7/26/2013	275743.84	3846478.11	Cultural Debris	Scrap	Nails, wire	N/A	N/A	3	4	1		2.8				Scrap Bin	None		7/23/2013	3
D6A5A0-00015	D6A5A0	25.81	7/26/2013	275744.47	3846461.47	Cultural Debris	Scrap	Nails, wire	N/A	N/A	2	3	1		2.2				Scrap Bin	None		7/23/2013	3
D6A5A0-00016	D6A5A0	6.47	7/26/2013	275744.49	3846495.71	Cultural Debris	Scrap	Nails	N/A	N/A	2	3	1		23		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A5A0-00017	D6A5A0	4.5	7/26/2013	275744.52	3846491.97	Cultural Debris	Scrap	Pipe	N/A	N/A	1	8	2		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00018	D6A5A0	31.78	7/26/2013	275744.6	3846499.91	Cultural Debris	Scrap	Steel	N/A	N/A	1	4	2		2				Scrap Bin	None		7/23/2013	3
D6A5A0-00019	D6A5A0	33.42	7/26/2013	275744.68	3846497.43	Cultural Debris	Scrap	Nail	N/A	N/A	2	10	1		2.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00020	D6A5A0	7.5	7/26/2013	275745.04	3846494.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00021	D6A5A0	15.99	7/26/2013	275745.23	3846454.07	Cultural Debris	Scrap	Nail	N/A	N/A	4	4	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00022	D6A5A0	13.98	7/26/2013	275745.28	3846477.14	Cultural Debris	Scrap	Bolt	N/A	N/A	1	12	2		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00023	D6A5A0	10.49	7/26/2013	275745.36	3846475.49	Cultural Debris	Scrap	Nail	N/A	N/A	4	3	1		2.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00024	D6A5A0	30.66	7/26/2013	275745.84	3846478.31	Cultural Debris	Scrap	Rebar, nails	N/A	N/A	5	6	2		1				Scrap Bin	None		7/23/2013	3
D6A5A0-00025	D6A5A0	46.62	7/26/2013	275745.98	3846466.75	Cultural Debris	Scrap	Nail, steel plate	N/A	N/A	10	6	2		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00026	D6A5A0	26.31	7/29/2013	275746.04	3846454.91	Cultural Debris	Scrap	Rebar	N/A	N/A	1	6	1		3				Scrap Bin	None		7/23/2013	3
D6A5A0-00027	D6A5A0	49.02	7/26/2013	275746.04	3846481.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	6	1		60				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00028	D6A5A0	29.79	7/26/2013	275746.04	3846489.91	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	2		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00029	D6A5A0	15.93	7/26/2013	275746.11	3846499.83	Cultural Debris	Scrap	Wire, nails	N/A	N/A	2	3	1		2				Scrap Bin	None		7/23/2013	3
D6A5A0-00030	D6A5A0	36	7/26/2013	275746.2	3846450.83	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	5		1.2				Scrap Bin	None		7/23/2013	3
D6A5A0-00031	D6A5A0	8.71	7/26/2013	275746.24	3846484.11	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00032	D6A5A0	3.12	7/26/2013	275746.24	3846486.51	Cultural Debris	Scrap	Bolt, nail	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00033	D6A5A0	53.87	7/26/2013	275746.64	3846476.51	Cultural Debris	Scrap	Brake pad, nail	N/A	N/A	5	6	2		8				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5B0-00232	D6A5B0	107.71	7/30/2013	275778.48	3846493.33	Shared	Shared	N/A	N/A	N/A	3	12	2		97				Left in Place	None	Shared with D6A5B0-228	7/23/2013	2
D6A5A0-00035	D6A5A0	34.7	7/26/2013	275746.84	3846453.71	Cultural Debris	Scrap	Spring, wire	N/A	N/A	4	8	1		1.6				Scrap Bin	None		7/23/2013	3
D6A5A0-00036	D6A5A0	3.57	7/26/2013	275746.84	3846468.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	0	0.1		3				Scrap Bin	None		7/23/2013	3
D6A5A0-00037	D6A5A0	14.27	7/26/2013	275746.84	3846471.51	Cultural Debris	Scrap	Pipe	N/A	N/A	2	9	1		-4				Scrap Bin	None		7/23/2013	3
D6A5A0-00038	D6A5A0	9.21	7/26/2013	275746.84	3846474.71	Cultural Debris	Scrap	Nail	N/A	N/A	4	9	1		3				Scrap Bin	None		7/23/2013	3
D6A5A0-00039	D6A5A0	6.48	7/26/2013	275746.84	3846488.11	Cultural Debris	Scrap	Screw driver	N/A	N/A	1	4	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00040	D6A5A0	6.55	7/26/2013	275747.24	3846493.11	Cultural Debris	Scrap	Nail	N/A	N/A	2	2	1		2.6				Scrap Bin	None		7/23/2013	3
D6A5A0-00041	D6A5A0	8.01	7/26/2013	275747.53	3846452.01	Cultural Debris	Scrap	Nails, steel plate	N/A	N/A	2	6	1		-4				Scrap Bin	None		7/23/2013	3
D6A5A0-00042	D6A5A0	19.28	7/26/2013	275747.64	3846483.31	Cultural Debris	Scrap	Pipe, nail, rust pieces	N/A	N/A	3	8	1		5.6				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00043	D6A5A0	10.3	7/26/2013	275747.64	3846503.31	Facility Resource	Chainlink Fence	N/A	N/A	N/A	0	0	0		30				Left in Place	None		7/23/2013	3
D6A5A0-00044	D6A5A0	14.24	7/26/2013	275748.23	3846471.24	Cultural Debris	Scrap	Track spike	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00045	D6A5A0	13.18	7/26/2013	275748.24	3846454.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	0	1		2.4				Scrap Bin	None		7/23/2013	3
D6A5A0-00046	D6A5A0	11.05	7/26/2013	275748.24	3846475.31	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	0.1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00047	D6A5A0	4.75	7/26/2013	275748.24	3846479.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	0.1		2.1				Scrap Bin	None		7/23/2013	3
D6A5A0-00048	D6A5A0	3.35	7/26/2013	275748.44	3846477.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	0.1		2.2				Scrap Bin	None		7/23/2013	3
D6A5A0-00049	D6A5A0	17.12	7/26/2013	275748.64	3846491.11	Cultural Debris	Scrap	Wire, nail	N/A	N/A	2	2	1		1.4				Scrap Bin	None		7/23/2013	3
D6A5A0-00050	D6A5A0	16.52	7/26/2013	275748.91	3846493.96	Cultural Debris	Scrap	Wire, nail	N/A	N/A	2	3	1		1.4				Scrap Bin	None		7/23/2013	3
D6A5A0-00051	D6A5A0	27.86	7/26/2013	275748.91	3846497.93	Cultural Debris	Scrap	Pipe, nail	N/A	N/A	4	4	1		4				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00052	D6A5A0	6.52	7/26/2013	275748.97	3846455.63	Cultural Debris	Scrap	Nail, steel plate	N/A	N/A	3	4	1		1.4				Scrap Bin	None		7/23/2013	3
D6A5A0-00053	D6A5A0	7.49	7/26/2013	275748.99	3846500.07	Cultural Debris	Scrap	Nails	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	3
D6A5A0-00054	D6A5A0	49.41	7/26/2013	275749.04	3846469.91	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	26	12	1		13.4				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00055	D6A5A0	72	7/29/2013	275749.12	3846487.43	Cultural Debris	Scrap	Nail, bolt, construction debris	N/A	N/A	27	18	14		27		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A5A0-00056	D6A5A0	8.98	7/29/2013	275749.44	3846475.31	Cultural Debris	Scrap	Pipe, link	N/A	N/A	3	6	2		1				Scrap Bin	None		7/23/2013	3
D6A5A0-00057	D6A5A0	75.99	7/26/2013	275749.44	3846485.31	Cultural Debris	Scrap	Pipe, nail, rust pieces	N/A	N/A	6	12	4		4				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00058	D6A5A0	30.45	7/26/2013	275749.64	3846492.11	Cultural Debris	Scrap	Pipe, nail	N/A	N/A	3	6	2		2.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00059	D6A5A0	15.79	7/26/2013	275749.71	3846453.99	Cultural Debris	Scrap	Brake pads, nail	N/A	N/A	2	4	1		23				Scrap Bin	None	Could not clear	7/23/2013	3
D6A5A0-00060	D6A5A0	10.53	7/26/2013	275749.74	3846481.61	Cultural Debris	Scrap	Nail	N/A	N/A	2	4	1		1.3				Scrap Bin	None		7/23/2013	3
D6A5A0-00061	D6A5A0	14.36	7/26/2013	275749.84	3846477.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	3	1		1.2				Scrap Bin	None		7/23/2013	3
D6A5A0-00062	D6A5A0	18.12	7/26/2013	275749.84	3846501.31	Cultural Debris	Scrap	Bolt	N/A	N/A	2	3	1		1.3				Scrap Bin	None		7/23/2013	3
D6A5A8-00001	D6A5A8	273.3	8/1/2013	275742.93	3846396.87	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	6	30		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00002	D6A5A8	15.18	8/1/2013	275743.72	3846393.09	Cultural Debris	Scrap	Rebar	N/A	N/A	1	7	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5A8-00003	D6A5A8	8.94	8/1/2013	275743.77	3846388.04	Cultural Debris	Scrap	Nail	N/A	N/A	2	9	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00004	D6A5A8	5.28	8/1/2013	275744.47	3846399.15	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00005	D6A5A8	7.15	8/1/2013	275744.49	3846389.99	Cultural Debris	Scrap	Nail	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00006	D6A5A8	27.1	8/1/2013	275744.51	3846394.08	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	8	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00007	D6A5A8	53.31	8/1/2013	275744.84	3846385.91	Cultural Debris	Scrap	Nail	N/A	N/A	40	12	3		14		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5A8-00009	D6A5A8	6.56	8/1/2013	275745.24	3846387.74	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00011	D6A5A8	16.01	8/1/2013	275745.28	3846391	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	6	2		1.9				Scrap Bin	None		7/23/2013	2
D6A5A8-00012	D6A5A8	55.29	8/1/2013	275745.3	3846396.69	Cultural Debris	Scrap	Nail, gas cap	N/A	N/A	2	8	3		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00014	D6A5A8	23.2	8/1/2013	275746	3846399.37	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	10	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00015	D6A5A8	36.99	8/1/2013	275746.04	3846393.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	24	6		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00016	D6A5A8	5.35	8/1/2013	275746.09	3846390.08	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5A8-00017	D6A5A8	11.12	8/1/2013	275746.64	3846388.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5A8-00018	D6A5A8	45.89	8/1/2013	275746.64	3846394.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	10	3		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00020	D6A5A8	3.77	8/1/2013	275746.75	3846391.4	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	10	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00021	D6A5A8	15.61	8/1/2013	275746.75	3846397.77	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	7	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5A8-00024	D6A5A8	8.25	8/1/2013	275747.04	3846387.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00025	D6A5A8	4.32	8/1/2013	275747.47	3846390.65	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00026	D6A5A8	24.68	8/1/2013	275747.54	3846398.54	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	6	2		2.4				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5A8-00028	D6A5A8	32.12	8/1/2013	275748.18	3846396.85	Cultural Debris	Scrap	Concrete	N/A	N/A	0	6	0		49				Left in Place	None	Could not clear	7/23/2013	2
D6A5A8-00029	D6A5A8	5.88	8/1/2013	275748.22	3846392.85	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00031	D6A5A8	18.55	8/1/2013	275748.6	3846390.96	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00033	D6A5A8	12.77	8/1/2013	275749.03	3846393.9	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00034	D6A5A8	139.85	8/1/2013	275749.03	3846397.95	Cultural Debris	Scrap	Rebar	N/A	N/A	3	8	4		1.4				Scrap Bin	None		7/23/2013	2
D6A5A8-00037	D6A5A8	57.79	8/1/2013	275749.04	3846399.91	Cultural Debris	Scrap	Concrete	N/A	N/A	0	4	0		81				Left in Place	None	Could not clear	7/23/2013	2
D6A5A8-00039	D6A5A8	33.41	8/1/2013	275749.76	3846386.61	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	9	2		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00040	D6A5A8	11.86	8/1/2013	275749.78	3846388.72	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5A8-00042	D6A5A8	95.68	8/1/2013	275749.98	3846391.51	Cultural Debris	Scrap	Rebar	N/A	N/A	1	12	3		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00001	D6A5A9	37.52	8/1/2013	275739.24	3846430.91	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	10	3		1.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00002	D6A5A9	15.97	8/1/2013	275739.49	3846435.36	Cultural Debris	Scrap	Nail, spring	N/A	N/A	3	6	2		1.2				Scrap Bin	None		7/23/2013	2
D6A5A9-00003	D6A5A9	19.78	8/1/2013	275739.64	3846426.31	Cultural Debris	Scrap	Nails	N/A	N/A	2	5	2		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00004	D6A5A9	13.94	8/1/2013	275739.84	3846424.11	Cultural Debris	Scrap	Nails	N/A	N/A	3	3	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00005	D6A5A9	34.88	8/1/2013	275740.14	3846421.38	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	6	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5A9-00006	D6A5A9	17.67	8/1/2013	275740.74	3846435.63	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00007	D6A5A9	48.96	8/1/2013	275740.84	3846418.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	8	2		1.8				Scrap Bin	None		7/23/2013	2
D6A5A9-00008	D6A5A9	65.5	8/1/2013	275740.94	3846413.05	Cultural Debris	Scrap	Rebar	N/A	N/A	1	12	4		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00009	D6A5A9	77.39	8/1/2013	275741.01	3846440.13	Cultural Debris	Scrap	Pipe, nails	N/A	N/A	5	12	4		20	Y			Scrap Bin	None	Could not clear	7/23/2013	2
D6A5A9-00010	D6A5A9	128.44	8/1/2013	275741.04	3846415.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	18	4		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00011	D6A5A9	6.08	8/1/2013	275741.44	3846411.31	Cultural Debris	Scrap	Wire, nail	N/A	N/A	2	6	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00012	D6A5A9	36.4	8/1/2013	275741.44	3846418.91	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	6	2		1.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00013	D6A5A9	7.76	8/1/2013	275741.44	3846430.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	3	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00014	D6A5A9	24.09	8/1/2013	275741.44	3846433.31	Cultural Debris	Scrap	Nail	N/A	N/A	4	8	2		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00015	D6A5A9	63.86	8/1/2013	275741.44	3846442.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	12	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00016	D6A5A9	1914.07	8/1/2013	275741.44	3846449.91	Cultural Debris	Scrap	Pipe	N/A	N/A	0	12	0		2600				Left in Place	None		7/23/2013	2
D6A5A9-00017	D6A5A9	8.63	8/1/2013	275741.47	3846437.27	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00018	D6A5A9	8.2	8/1/2013	275741.59	3846426.24	Cultural Debris	Scrap	Nail	N/A	N/A	3	4	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5A9-00019	D6A5A9	23.71	8/1/2013	275741.64	3846423.71	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00020	D6A5A9	14.55	8/1/2013	275742.04	3846417.51	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00021	D6A5A9	8.68	8/1/2013	275742.04	3846429.11	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00022	D6A5A9	20	8/1/2013	275742.22	3846412.32	Cultural Debris	Scrap	Nail	N/A	N/A	2	13	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00023	D6A5A9	11.78	8/1/2013	275742.22	3846422.37	Cultural Debris	Scrap	Nail, brackets	N/A	N/A	4	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00024	D6A5A9	45.42	8/1/2013	275742.64	3846408.11	Cultural Debris	Scrap	Wire, nail	N/A	N/A	3	12	3		2.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00025	D6A5A9	972.79	8/1/2013	275742.84	3846414.51	Cultural Debris	Scrap	Stake	N/A	N/A	1	16	15		1.8				Scrap Bin	None		7/23/2013	2
D6A5A9-00026	D6A5A9	22.25	8/1/2013	275742.84	3846426.11	Cultural Debris	Scrap	Nail	N/A	N/A	4	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00027	D6A5A9	863.69	8/1/2013	275742.84	3846445.51	Cultural Debris	Scrap	Pipe	N/A	N/A	1	12	0		51				Left in Place	None		7/23/2013	2
D6A5A9-00028	D6A5A9	15.38	8/1/2013	275742.94	3846423.45	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	6	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00029	D6A5A9	18.9	8/1/2013	275743.04	3846418.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		1				Scrap Bin	None		7/23/2013	2
D6A5A9-00030	D6A5A9	690.63	8/1/2013	275743.04	3846435.91	Cultural Debris	Scrap	Pipe	N/A	N/A	1	10	30		5				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5A9-00031	D6A5A9	22.72	8/1/2013	275743.64	3846400.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00032	D6A5A9	44.01	8/1/2013	275743.64	3846410.71	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	6	2		1.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00033	D6A5A9	23.57	8/1/2013	275743.71	3846443.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	6	12	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00034	D6A5A9	29.94	8/1/2013	275743.72	3846401.53	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00035	D6A5A9	51.2	8/1/2013	275743.84	3846412.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	6	12	2		2.9				Scrap Bin	None		7/23/2013	2
D6A5A9-00036	D6A5A9	1336.8	8/1/2013	275743.84	3846449.51	Cultural Debris	Scrap	Pipe	N/A	N/A	0	12	0		1660				Left in Place	None		7/23/2013	2
D6A5A9-00037	D6A5A9	161.89	8/1/2013	275743.9	3846413.88	Cultural Debris	Scrap	Chain	N/A	N/A	1	7	8		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00038	D6A5A9	5.78	8/1/2013	275744.42	3846419.18	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00039	D6A5A9	24.94	8/1/2013	275744.52	3846423.85	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00040	D6A5A9	10.74	8/1/2013	275744.64	3846431.71	Cultural Debris	Scrap	Wire, rebar	N/A	N/A	3	3	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00041	D6A5A9	4.35	8/1/2013	275744.69	3846438.2	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00042	D6A5A9	22.87	8/1/2013	275744.84	3846409.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00043	D6A5A9	105.07	8/1/2013	275745.24	3846413.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	8	4		1.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00044	D6A5A9	13.03	8/1/2013	275745.24	3846421.51	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00045	D6A5A9	27.72	8/1/2013	275745.27	3846416.2	Cultural Debris	Scrap	Nail	N/A	N/A	3	8	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00046	D6A5A9	23.64	8/1/2013	275745.27	3846444.72	Cultural Debris	Scrap	Pipe	N/A	N/A	2	8	3		1.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00047	D6A5A9	39.9	8/1/2013	275745.35	3846427.21	Cultural Debris	Scrap	Steel	N/A	N/A	4	5	3		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00048	D6A5A9	12.66	8/1/2013	275745.37	3846439.82	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5A9-00049	D6A5A9	27.2	8/1/2013	275745.44	3846407.91	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	8	1		2.5				Scrap Bin	None		7/23/2013	2
D6A5A9-00050	D6A5A9	72.78	8/1/2013	275745.44	3846424.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	9	3		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00051	D6A5A9	6.06	8/1/2013	275745.44	3846434.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5A9-00052	D6A5A9	8.93	8/1/2013	275746.04	3846447.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00053	D6A5A9	28.63	8/1/2013	275746.06	3846423.37	Cultural Debris	Scrap	Rebar	N/A	N/A	1	12	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00054	D6A5A9	34.39	8/1/2013	275746.08	3846410.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00055	D6A5A9	13.98	8/1/2013	275746.08	3846417.82	Cultural Debris	Scrap	Nail	N/A	N/A	3	12	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00056	D6A5A9	38.44	8/1/2013	275746.24	3846440.91	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	1		2.5				Scrap Bin	None		7/23/2013	2
D6A5A9-00057	D6A5A9	40.47	8/1/2013	275746.7	3846426.09	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	7	3		1				Scrap Bin	None		7/23/2013	2
D6A5A9-00058	D6A5A9	4.4	8/1/2013	275746.7	3846445.35	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00059	D6A5A9	34.57	8/1/2013	275746.84	3846412.91	Cultural Debris	Scrap	Rebar, banding	N/A	N/A	2	7	1		3				Scrap Bin	None		7/23/2013	2
D6A5A9-00060	D6A5A9	318.26	8/1/2013	275746.84	3846415.11	Cultural Debris	Scrap	Rebar, banding	N/A	N/A	3	20	5		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00061	D6A5A9	94.9	8/1/2013	275746.84	3846416.71	Cultural Debris	Scrap	Rebar, nails, spring	N/A	N/A	6	7	4		3				Scrap Bin	None		7/23/2013	2
D6A5A9-00062	D6A5A9	94.14	8/1/2013	275746.84	3846427.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	5	8	6		2.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00063	D6A5A9	10.4	8/1/2013	275746.84	3846432.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	8	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00064	D6A5A9	252.19	8/1/2013	275747.14	3846410.08	Cultural Debris	Scrap	Plumb bob	N/A	N/A	1	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00065	D6A5A9	4.84	8/1/2013	275747.43	3846435.92	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.7				Scrap Bin	None		7/23/2013	2
D6A5A9-00066	D6A5A9	634	8/1/2013	275747.44	3846400.71	Other	Fuel	Smelled of Petroleum	N/A	N/A	0	18	0		600				Left in Place	None	Stopped once odor of petroleum was noticed	7/23/2013	2
D6A5A9-00067	D6A5A9	31.11	8/1/2013	275747.44	3846411.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	12	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00068	D6A5A9	4.73	8/1/2013	275747.51	3846439.57	Cultural Debris	Scrap	Nail	N/A	N/A	1	4	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00069	D6A5A9	29.37	8/1/2013	275747.55	3846431.55	Cultural Debris	Scrap	Spring	N/A	N/A	1	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00070	D6A5A9	94.94	8/1/2013	275747.64	3846429.71	Cultural Debris	Scrap	Steel plate	N/A	N/A	5	10	8		1.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00071	D6A5A9	15.74	8/1/2013	275747.64	3846433.91	Cultural Debris	Scrap	Spike	N/A	N/A	1	6	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5A9-00072	D6A5A9	19.86	8/1/2013	275747.64	3846437.11	Cultural Debris	Scrap	Broken Pipe	N/A	N/A	4	10	2		2.2				Scrap Bin	None		7/23/2013	2
D6A5A9-00073	D6A5A9	59.21	8/1/2013	275747.64	3846442.91	Cultural Debris	Scrap	Steel pipe	N/A	N/A	3	12	15		2.3				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5A9-00074	D6A5A9	49.7	8/1/2013	275748.16	3846440.96	Cultural Debris	Scrap	Pipe	N/A	N/A	2	8	10		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00075	D6A5A9	8.1	8/1/2013	275748.22	3846425.07	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00076	D6A5A9	7.04	8/1/2013	275748.24	3846420.13	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00077	D6A5A9	97.37	8/1/2013	275748.24	3846449.69	Cultural Debris	Scrap	Nail, pipe	N/A	N/A	3	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00078	D6A5A9	30.36	8/1/2013	275748.24	3846412.71	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	3	2		1.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00079	D6A5A9	19.4	8/1/2013	275748.24	3846417.71	Cultural Debris	Scrap	Rebar	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00080	D6A5A9	232.96	8/1/2013	275748.24	3846427.31	MPPEH	Small Arms	5.56mm	N/A	Magazine	3	4	10		0				Consolidation Point	Demil		7/23/2013	2
D6A5A9-00081	D6A5A9	41.26	8/1/2013	275748.44	3846415.51	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	6	3		2.4				Scrap Bin	None		7/23/2013	2
D6A5A9-00082	D6A5A9	37.36	8/1/2013	275748.44	3846416.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	3	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00083	D6A5A9	109.69	8/1/2013	275748.44	3846422.31	Cultural Debris	Scrap	Pipe	N/A	N/A	4	12	6		2.9				Scrap Bin	None		7/23/2013	2
D6A5A9-00084	D6A5A9	3715.25	8/1/2013	275748.45	3846408.58	Other	Fuel	Smelled of Petroleum	N/A	N/A	0	18	0		2000				Left in Place	None	Stopped once odor of petroleum was noticed	7/23/2013	2
D6A5A9-00085	D6A5A9	16.53	8/1/2013	275749.01	3846436.37	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		23				Scrap Bin	None		7/23/2013	2
D6A5A9-00086	D6A5A9	52.57	8/1/2013	275749.04	3846411.71	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	3		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00087	D6A5A9	431.99	8/1/2013	275749.04	3846442.31	Cultural Debris	Scrap	Pipe	N/A	N/A	0	6	0		462				Left in Place	None	Could not clear	7/23/2013	2
D6A5A9-00088	D6A5A9	72.45	8/1/2013	275749.24	3846432.39	Cultural Debris	Scrap	Fence post	N/A	N/A	1	10	3		1				Scrap Bin	None		7/23/2013	2
D6A5A9-00089	D6A5A9	186.75	8/1/2013	275749.26	3846430.12	Cultural Debris	Scrap	Steel	N/A	N/A	2	9	5		2.9				Scrap Bin	None		7/23/2013	2
D6A5A9-00090	D6A5A9	37.09	8/1/2013	275749.64	3846412.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	7	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00091	D6A5A9	54.16	8/1/2013	275749.64	3846418.71	Cultural Debris	Scrap	Plumb bob	N/A	N/A	1	2	3		2				Scrap Bin	None		7/23/2013	2
D6A5A9-00092	D6A5A9	30.27	8/1/2013	275749.73	3846410.64	Cultural Debris	Scrap	Wrench	N/A	N/A	1	8	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00093	D6A5A9	63.66	8/1/2013	275749.73	3846421.96	Cultural Debris	Scrap	Steel	N/A	N/A	3	9	6		2.8				Scrap Bin	None		7/23/2013	2
D6A5A9-00094	D6A5A9	15.61	8/1/2013	275749.76	3846415.08	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00095	D6A5A9	42.22	8/1/2013	275749.76	3846425.24	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	9	3		2.6				Scrap Bin	None		7/23/2013	2
D6A5A9-00096	D6A5A9	161.32	8/1/2013	275749.76	3846427.5	Cultural Debris	Scrap	Steel pipe	N/A	N/A	2	14	6		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00097	D6A5A9	8.26	8/1/2013	275749.83	3846400.82	Cultural Debris	Scrap	Nail	N/A	N/A	1	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5A9-00098	D6A5A9	23.85	8/1/2013	275749.84	3846435.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	6	2		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00001	D6A5B0	5731.37	7/29/2013	275750.04	3846450.11	Cultural Debris	Scrap	Pipe	N/A	N/A	0	12	0		6300				Left in Place	None		7/23/2013	2
D6A5B0-00002	D6A5B0	21.79	7/29/2013	275750.04	3846473.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	3	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00003	D6A5B0	20.92	7/29/2013	275750.11	3846497.56	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	6	7	1		6				Scrap Bin	None		7/23/2013	2
D6A5B0-00004	D6A5B0	30.46	7/29/2013	275750.24	3846494.11	Cultural Debris	Scrap	Wire, bolt	N/A	N/A	9	6	2		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00005	D6A5B0	15.89	7/29/2013	275750.41	3846478.4	Cultural Debris	Scrap	Nail, bolt, wire	N/A	N/A	7	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00006	D6A5B0	523.02	7/29/2013	275750.64	3846488.11	Cultural Debris	Scrap	Steel bucket	N/A	N/A	3	8	22		72				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00007	D6A5B0	11.21	7/29/2013	275750.97	3846461.55	Cultural Debris	Scrap	Steel	N/A	N/A	2	6	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00008	D6A5B0	19.86	7/29/2013	275751.04	3846471.91	Cultural Debris	Scrap	Nail	N/A	N/A	5	6	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00009	D6A5B0	18.32	7/29/2013	275751.24	3846481.11	Cultural Debris	Scrap	Wire, nail	N/A	N/A	9	7	2		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00010	D6A5B0	160.07	7/29/2013	275751.44	3846467.91	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	6		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00011	D6A5B0	54.39	7/29/2013	275751.64	3846453.11	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	9	3		4				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00012	D6A5B0	34.65	7/29/2013	275751.64	3846477.91	Cultural Debris	Scrap	Nail, rebar, wire	N/A	N/A	7	8	4		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00013	D6A5B0	53.98	7/29/2013	275751.84	3846490.91	Cultural Debris	Scrap	Nail, wire, bolt	N/A	N/A	11	7	4		6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00014	D6A5B0	18.03	7/29/2013	275751.84	3846496.11	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	4	12	2		5				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00015	D6A5B0	28.32	7/29/2013	275752.04	3846478.91	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	2		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00016	D6A5B0	15.26	7/29/2013	275752.37	3846472.08	Cultural Debris	Scrap	Nail, rebar, bolt	N/A	N/A	6	8	3		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00017	D6A5B0	18.99	7/29/2013	275752.44	3846499.31	Cultural Debris	Scrap	Nail, lock	N/A	N/A	3	6	2		7.5				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00018	D6A5B0	33.21	7/29/2013	275752.45	3846483.37	Cultural Debris	Scrap	Nail, bolts	N/A	N/A	9	3	1		2.7				Scrap Bin	None		7/23/2013	2
D6A5B0-00019	D6A5B0	68.44	7/29/2013	275752.6	3846454.72	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	12	8		2.7				Scrap Bin	None		7/23/2013	2
D6A5B0-00020	D6A5B0	17.04	7/29/2013	275752.64	3846497.51	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	6	6	1		9.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00021	D6A5B0	44.58	7/29/2013	275753.24	3846462.11	Cultural Debris	Scrap	Pipe, nails	N/A	N/A	4	12	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00022	D6A5B0	6.96	7/29/2013	275753.24	3846470.51	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	6	1		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00023	D6A5B0	35.87	7/29/2013	275753.24	3846488.71	Cultural Debris	Scrap	Nail, brackets	N/A	N/A	7	5	1		9				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00024	D6A5B0	122.22	7/29/2013	275753.24	3846491.91	Cultural Debris	Scrap	Rebar, brackets	N/A	N/A	13	9	7		12.3				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00025	D6A5B0	31	7/29/2013	275753.25	3846472.46	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	4	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00026	D6A5B0	26.85	7/29/2013	275753.44	3846476.31	Cultural Debris	Scrap	Steel, nail	N/A	N/A	3	6	4		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00027	D6A5B0	36.8	7/29/2013	275753.64	3846473.51	Cultural Debris	Scrap	Build material	N/A	N/A	12	6	1		8				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00028	D6A5B0	3.13	7/29/2013	275753.96	3846479.03	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	0.1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00029	D6A5B0	465.94	7/29/2013	275754.04	3846453.11	Cultural Debris	Scrap	Rebar	N/A	N/A	6	6	20		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00030	D6A5B0	144.36	7/29/2013	275754.24	3846482.71	Cultural Debris	Scrap	Rebar, wire, cable ties	N/A	N/A	10	4	5		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00031	D6A5B0	23.18	7/29/2013	275754.64	3846468.51	Cultural Debris	Scrap	Nail, bolts	N/A	N/A	4	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00032	D6A5B0	23.01	7/29/2013	275754.64	3846487.91	Cultural Debris	Scrap	Nail, bolts, building material	N/A	N/A	9	8	2		16				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00033	D6A5B0	13.47	7/29/2013	275754.64	3846494.51	Cultural Debris	Scrap	Nail, bolts	N/A	N/A	4	12	1		6.3				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00034	D6A5B0	37.21	7/29/2013	275754.76	3846460.99	Cultural Debris	Scrap	Rebar	N/A	N/A	3	15	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00035	D6A5B0	3.79	7/29/2013	275754.76	3846470.45	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00036	D6A5B0	6.54	7/29/2013	275754.84	3846478.11	Cultural Debris	Scrap	Wire, license plate	N/A	N/A	4	6	1		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00037	D6A5B0	124.05	7/29/2013	275754.84	3846485.71	Cultural Debris	Scrap	Banding, nail	N/A	N/A	13	4	4		13				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00038	D6A5B0	91.8	7/29/2013	275754.84	3846491.31	Cultural Debris	Scrap	Wire, rebar, building material	N/A	N/A	14	8	6		21				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00039	D6A5B0	59.89	7/29/2013	275754.84	3846498.11	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	9	12	1		13.7				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00040	D6A5B0	47.27	7/29/2013	275755.64	3846462.51	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	10	2		1.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00041	D6A5B0	174.59	7/29/2013	275755.64	3846476.11	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	6	24	10		7.8				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00042	D6A5B0	20.65	7/29/2013	275755.64	3846480.91	Cultural Debris	Scrap	Banding, nail	N/A	N/A	7	8	2		9				Scrap Bin	None		7/23/2013	2
D6A5B0-00043	D6A5B0	7.02	7/29/2013	275756.04	3846471.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	13	3	1		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00044	D6A5B0	45.71	7/29/2013	275756.18	3846455.13	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	6	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00045	D6A5B0	20.72	7/29/2013	275756.24	3846451.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	4	1		3.1				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00046	D6A5B0	106.07	7/29/2013	275756.44	3846486.11	Cultural Debris	Scrap	Pipe, nail, building material	N/A	N/A	17	12	6		9				Scrap Bin	None		7/23/2013	2
D6A5B0-00047	D6A5B0	20.97	7/29/2013	275756.84	3846490.31	Cultural Debris	Scrap	Bolt, nail, building material	N/A	N/A	9	9	1		8.2				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00048	D6A5B0	69.74	7/29/2013	275756.84	3846498.11	Cultural Debris	Scrap	Bolt, nail, building material	N/A	N/A	8	11	3		29				Scrap Bin	None		7/23/2013	2
D6A5B0-00049	D6A5B0	48.5	7/29/2013	275756.95	3846461.28	Cultural Debris	Scrap	Rebar, steel, bolt	N/A	N/A	2	10	2		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00050	D6A5B0	271.84	7/29/2013	275757.04	3846473.51	Cultural Debris	Scrap	Pipe, banding	N/A	N/A	3	5	10		10.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00051	D6A5B0	7.42	7/29/2013	275757.04	3846477.51	Cultural Debris	Scrap	Bolt	N/A	N/A	1	5	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00052	D6A5B0	25.32	7/29/2013	275757.04	3846480.51	Cultural Debris	Scrap	Bolt, nail, license plate	N/A	N/A	9	5	2		6.8				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00053	D6A5B0	4.84	7/29/2013	275757.24	3846478.71	Cultural Debris	Scrap	Banding	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00054	D6A5B0	112.89	7/29/2013	275757.39	3846468.5	Cultural Debris	Scrap	Bolt, building material	N/A	N/A	2	18	4		15.6				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00055	D6A5B0	73.69	7/29/2013	275757.64	3846451.51	Cultural Debris	Scrap	Rebar	N/A	N/A	3	12	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00056	D6A5B0	71.44	7/29/2013	275757.64	3846466.31	Cultural Debris	Scrap	Stake, building material	N/A	N/A	1	12	2		26				Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00057	D6A5B0	200.97	7/29/2013	275757.64	3846471.91	Cultural Debris	Scrap	Steel stakes	N/A	N/A	3	5	12		10.1				Scrap Bin	None	Could not clear	7/23/2013	2

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B0-00058	D6A5B0	41.28	7/29/2013	275757.64	3846496.11	Cultural Debris	Scrap	Nails, bolts	N/A	N/A	6	4	2		9.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00059	D6A5B0	76.45	7/29/2013	275757.64	3846499.31	Cultural Debris	Scrap	Nail, wire, bolt	N/A	N/A	13	8	1		22		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00060	D6A5B0	48.46	7/29/2013	275757.66	3846481.86	Cultural Debris	Scrap	Nail, rebar, banding	N/A	N/A	9	7	3		7.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00061	D6A5B0	31.12	7/29/2013	275757.72	3846476.07	Cultural Debris	Scrap	Banding	N/A	N/A	2	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00062	D6A5B0	93.4	7/29/2013	275758.24	3846454.91	Cultural Debris	Scrap	Rebar, wire	N/A	N/A	5	19	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00063	D6A5B0	56.7	7/29/2013	275758.44	3846450.51	Cultural Debris	Scrap	Allum can	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00064	D6A5B0	36.76	7/29/2013	275758.44	3846485.91	Cultural Debris	Scrap	Nail, bolt, building material	N/A	N/A	13	6	2		7.4				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00065	D6A5B0	932.12	7/29/2013	275758.44	3846490.31	Facility Resource	Cable Anchor	N/A	N/A	N/A	0	0	0		930				Left in Place	None		7/23/2013	2
D6A5B0-00066	D6A5B0	30.39	7/29/2013	275758.48	3846465.48	Cultural Debris	Scrap	Nails, wire	N/A	N/A	3	6	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00067	D6A5B0	58.86	7/29/2013	275758.64	3846492.71	Cultural Debris	Scrap	Nails, sign	N/A	N/A	8	4	2		4.9				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00068	D6A5B0	48.68	7/29/2013	275758.84	3846494.31	Cultural Debris	Scrap	Nail, rod	N/A	N/A	9	7	2		5				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00069	D6A5B0	162.38	7/29/2013	275759.11	3846481.21	Cultural Debris	Scrap	Pipe nipple	N/A	N/A	11	7	5		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00070	D6A5B0	22.15	7/29/2013	275759.24	3846451.51	Cultural Debris	Scrap	Nail, steel plate	N/A	N/A	4	6	5		3.1				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00071	D6A5B0	8.62	7/29/2013	275759.24	3846463.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00072	D6A5B0	555.39	7/29/2013	275759.24	3846477.71	Cultural Debris	Scrap	Banding	N/A	N/A	2	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00073	D6A5B0	10.42	7/29/2013	275759.24	3846487.11	Cultural Debris	Scrap	Steel square	N/A	N/A	1	8	1		5				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00074	D6A5B0	58.17	7/29/2013	275759.24	3846493.51	Cultural Debris	Scrap	Rebar, nail	N/A	N/A	15	6	2		6.8				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00075	D6A5B0	13.1	7/29/2013	275759.84	3846469.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00076	D6A5B0	127.98	7/29/2013	275759.84	3846474.11	Cultural Debris	Scrap	Rebar, can, nail	N/A	N/A	6	8	4		10				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00077	D6A5B0	52.9	7/29/2013	275759.84	3846494.91	Cultural Debris	Scrap	Rebar, steel plate	N/A	N/A	5	16	3		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00078	D6A5B0	75.03	7/29/2013	275759.98	3846490.2	Facility Resource	Cable Anchor	N/A	N/A	N/A	0	0	0		75				Left in Place	None		7/23/2013	2
D6A5B0-00079	D6A5B0	72.31	7/29/2013	275760.04	3846471.51	Cultural Debris	Scrap	Rebar, bolt	N/A	N/A	6	1	4		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00080	D6A5B0	1715.59	7/29/2013	275760.24	3846461.11	Cultural Debris	Scrap	Steel, wire	N/A	N/A	5	6	3		4.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00081	D6A5B0	5.79	7/29/2013	275760.64	3846466.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00082	D6A5B0	8398.99	7/29/2013	275760.64	3846481.11	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	1	0	25		19.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00083	D6A5B0	44.41	7/29/2013	275760.84	3846464.11	Cultural Debris	Scrap	Wire, trash	N/A	N/A	6	0	2		25		Y		Scrap Bin	None	Could not clear, trash pit	7/23/2013	2
D6A5B0-00084	D6A5B0	91.29	7/29/2013	275760.84	3846488.91	Cultural Debris	Scrap	Rebar	N/A	N/A	1	0	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00085	D6A5B0	121.61	7/29/2013	275760.84	3846498.11	Cultural Debris	Scrap	Rebar, nail, hinge	N/A	N/A	17	13	5		12.9				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00086	D6A5B0	42.29	7/29/2013	275761.04	3846483.71	Cultural Debris	Scrap	Rebar, building material	N/A	N/A	6	7	3		7.7				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00087	D6A5B0	52.94	7/29/2013	275761.12	3846453.21	Cultural Debris	Scrap	Nail, wire, building material	N/A	N/A	15	18	1		35		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00088	D6A5B0	99.26	7/29/2013	275761.24	3846455.51	Cultural Debris	Scrap	Nail, banding, rebar	N/A	N/A	3	12	2		20				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00089	D6A5B0	72.73	7/30/2013	275761.24	3846494.31	Cultural Debris	Scrap	Bracket, bolt, nail	N/A	N/A	10	8	4		13.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00090	D6A5B0	12.03	7/30/2013	275761.44	3846450.31	Cultural Debris	Scrap	Nail, steel plate	N/A	N/A	2	0	1		3.1				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00091	D6A5B0	309.57	7/30/2013	275761.44	3846492.31	Cultural Debris	Scrap	Cable tensioner, nail, screws	N/A	N/A	1	5	5		19.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00092	D6A5B0	13.82	7/30/2013	275761.48	3846465.7	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00093	D6A5B0	40.38	7/30/2013	275761.84	3846472.11	Cultural Debris	Scrap	Nail, wire, bolts	N/A	N/A	6	12	3		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00094	D6A5B0	11.41	7/30/2013	275761.84	3846477.91	Cultural Debris	Scrap	Can	N/A	N/A	1	4	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00095	D6A5B0	7.58	7/30/2013	275762.18	3846452	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00096	D6A5B0	85.46	7/30/2013	275762.24	3846454.51	Cultural Debris	Scrap	Nail, wire, steel	N/A	N/A	3	8	4		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00097	D6A5B0	28.21	7/30/2013	275762.24	3846464.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00098	D6A5B0	42.33	7/30/2013	275762.24	3846466.71	Cultural Debris	Scrap	Wire	N/A	N/A	4	9	3		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00099	D6A5B0	24.2	7/30/2013	275762.24	3846476.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00100	D6A5B0	54.49	7/30/2013	275762.24	3846479.71	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	6	12	2		10.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00101	D6A5B0	20.39	7/30/2013	275762.24	3846482.51	Cultural Debris	Scrap	Nail, bolt, building material	N/A	N/A	5	10	2		7.3		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00102	D6A5B0	277.26	7/30/2013	275762.59	3846462.91	Cultural Debris	Scrap	Wire	N/A	N/A	4	10	6		8		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00103	D6A5B0	124.25	7/30/2013	275762.84	3846469.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	6	6	3		4.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00104	D6A5B0	19.5	7/30/2013	275762.97	3846499.66	Cultural Debris	Scrap	Bolt, nail, wire	N/A	N/A	11	12	2		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00105	D6A5B0	50.62	7/30/2013	275763.04	3846497.11	Cultural Debris	Scrap	Spike	N/A	N/A	6	13	4		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00106	D6A5B0	62.4	7/30/2013	275763.44	3846475.11	Cultural Debris	Scrap	Steel	N/A	N/A	1	4	8		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00107	D6A5B0	57.99	7/30/2013	275763.64	3846454.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00108	D6A5B0	51.41	7/30/2013	275763.64	3846464.91	Cultural Debris	Scrap	Steel, wire	N/A	N/A	6	5	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00109	D6A5B0	171.92	7/30/2013	275763.68	3846482.61	Cultural Debris	Scrap	Steel, rebar	N/A	N/A	2	12	3		8.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00110	D6A5B0	6.54	7/30/2013	275763.84	3846451.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	10	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00111	D6A5B0	74.12	7/30/2013	275763.84	3846488.51	Cultural Debris	Scrap	Banding, buiding material	N/A	N/A	10	12	2		58				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00112	D6A5B0	110.43	7/30/2013	275764.3	3846492.28	Cultural Debris	Scrap	Communication wire	N/A	N/A	4	12	3		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00113	D6A5B0	25.68	7/30/2013	275764.44	3846472.31	Cultural Debris	Scrap	Rebar, cable clamp	N/A	N/A	3	12	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00114	D6A5B0	1001.95	7/30/2013	275764.44	3846480.91	Cultural Debris	Scrap	Engine parts	N/A	N/A	3	10	16		92		Y		Scrap Bin	None	Could not clear, trash pit	7/23/2013	2
D6A5B0-00115	D6A5B0	5.19	7/30/2013	275764.44	3846486.11	Cultural Debris	Scrap	Nail	N/A	N/A	1	10	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00116	D6A5B0	7.43	7/30/2013	275764.49	3846462.71	Cultural Debris	Scrap	Wire	N/A	N/A	1	2	1		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00117	D6A5B0	314.08	7/30/2013	275764.64	3846469.91	Cultural Debris	Scrap	Rebar	N/A	N/A	2	6	6		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00118	D6A5B0	714.75	7/30/2013	275764.64	3846477.11	Cultural Debris	Scrap	Pipe, stakes	N/A	N/A	10	10	10		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00119	D6A5B0	45.28	7/30/2013	275765.04	3846490.91	Cultural Debris	Scrap	Winshield wiper	N/A	N/A	1	10	1		7.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00120	D6A5B0	52.24	7/30/2013	275765.2	3846467.94	Cultural Debris	Scrap	Nail, wire, band, building material	N/A	N/A	10	12	2		44		Y		Scrap Bin	None	Could not clear, construction debris	7/23/2013	2
D6A5B0-00121	D6A5B0	113.13	7/29/2013	275765.24	3846454.71	Cultural Debris	Scrap	Wire, nail	N/A	N/A	3	9	6		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00122	D6A5B0	84.7	7/29/2013	275765.24	3846460.31	Cultural Debris	Scrap	Banding, wire	N/A	N/A	6	6	2		15				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00123	D6A5B0	7.4	7/29/2013	275765.29	3846452.03	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00243	D6A5B0	594.88	7/30/2013	275779.5	3846490.81	Shared	Shared	N/A	N/A	N/A	1	0	0		0				Left in Place	None	Shared with D6A5B0-228	7/23/2013	2
D6A5B0-00125	D6A5B0	189.86	7/29/2013	275765.55	3846469.06	Cultural Debris	Scrap	Ban stock	N/A	N/A	1	6	6		2.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00126	D6A5B0	88.86	7/29/2013	275765.99	3846480.26	Cultural Debris	Scrap	Cap	N/A	N/A	7	2	3		90		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00127	D6A5B0	12.77	7/29/2013	275766	3846494.56	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00128	D6A5B0	12.67	7/29/2013	275766.04	3846493.11	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	6	1		4				Scrap Bin	None		7/23/2013	2
D6A5B0-00129	D6A5B0	22.01	7/29/2013	275766.05	3846474.77	Cultural Debris	Scrap	Can	N/A	N/A	1	9	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00130	D6A5B0	31.46	7/29/2013	275766.11	3846470.69	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00131	D6A5B0	20.21	7/29/2013	275766.64	3846450.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	2		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00132	D6A5B0	41.71	7/29/2013	275766.64	3846462.91	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	8	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00133	D6A5B0	35.99	7/29/2013	275766.64	3846473.51	Cultural Debris	Scrap	Wire	N/A	N/A	2	10	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00134	D6A5B0	11.77	7/29/2013	275766.64	3846488.71	Cultural Debris	Scrap	Banding, buiding material	N/A	N/A	7	10	1		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00135	D6A5B0	28.67	7/29/2013	275766.84	3846464.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00136	D6A5B0	11.69	7/29/2013	275766.84	3846487.51	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	1	10	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00137	D6A5B0	21.6	7/29/2013	275766.84	3846497.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00138	D6A5B0	113.53	7/29/2013	275767.18	3846453.42	Cultural Debris	Scrap	Steel	N/A	N/A	2	9	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00139	D6A5B0	234.6	7/29/2013	275767.44	3846476.91	Cultural Debris	Scrap	Tent stake	N/A	N/A	3	24	30		6				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5A0-00034	D6A5A0	117.42	7/26/2013	275746.64	3846497.71	TBD	Greater than 2 feet	N/A	N/A	N/A	0	24	0		134				Left in Place	None	Dug to investigation depth of 2 ft	7/23/2013	3
D6A5B0-00141	D6A5B0	27.88	7/29/2013	275767.48	3846484.96	Cultural Debris	Scrap	Wrench, building material	N/A	N/A	2	8	1		2.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00142	D6A5B0	13.15	7/29/2013	275767.48	3846495.68	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		4				Scrap Bin	None		7/23/2013	2
D6A5B0-00143	D6A5B0	483.94	7/29/2013	275767.64	3846460.31	Cultural Debris	Scrap	Steel plate	N/A	N/A	6	8	25		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00144	D6A5B0	157.8	7/29/2013	275767.84	3846469.31	MPPEH	Grenade	Grenade, Hand, Practice, M69	Empty	Unfuzed	3	6	4		1.4				Consolidation Point	Demil		7/23/2013	2
D6A5B0-00145	D6A5B0	31.81	7/29/2013	275768.04	3846499.51	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00146	D6A5B0	19.84	7/29/2013	275768.19	3846467.67	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00147	D6A5B0	4.06	7/29/2013	275768.21	3846491.27	Cultural Debris	Scrap	Sheet metal	N/A	N/A	1	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00148	D6A5B0	65.2	7/29/2013	275768.24	3846465.31	Cultural Debris	Scrap	Nail	N/A	N/A	6	6	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00149	D6A5B0	18.57	7/29/2013	275768.24	3846494.91	Cultural Debris	Scrap	Nail	N/A	N/A	6	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00150	D6A5B0	22.09	7/29/2013	275768.64	3846474.91	Cultural Debris	Scrap	Nail, bolt, banding	N/A	N/A	4	3	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00151	D6A5B0	4.2	7/29/2013	275768.84	3846450.31	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00152	D6A5B0	23.95	7/29/2013	275768.84	3846478.51	Cultural Debris	Scrap	Banding, buiding material	N/A	N/A	5	6	1		9.2		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00153	D6A5B0	147.84	7/29/2013	275768.84	3846483.91	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	3		4.8				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00154	D6A5B0	262.7	7/29/2013	275769.04	3846487.91	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	6	16	22		9.9				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00155	D6A5B0	7.7	7/29/2013	275769.04	3846497.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	6	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00156	D6A5B0	31.06	7/29/2013	275769.44	3846467.31	Cultural Debris	Scrap	wire	N/A	N/A	1	4	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00157	D6A5B0	39.53	7/29/2013	275769.44	3846472.11	Cultural Debris	Scrap	Nail, wire	Wire in tree	N/A	2	8	1		10				Left in Place	None	Could not clear, tree grown around wire	7/23/2013	2
D6A5B0-00158	D6A5B0	64.12	7/29/2013	275769.64	3846460.91	Cultural Debris	Scrap	Nail	N/A	N/A	6	12	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00159	D6A5B0	21	7/29/2013	275769.64	3846494.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	12	3		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00160	D6A5B0	143.04	7/29/2013	275769.84	3846453.71	Cultural Debris	Scrap	Rebar	N/A	N/A	5	6	3		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00161	D6A5B0	24.88	7/29/2013	275769.84	3846462.71	Cultural Debris	Scrap	Rebar	N/A	N/A	6	6	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00162	D6A5B0	13.33	7/29/2013	275769.84	3846492.91	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00163	D6A5B0	5.99	7/29/2013	275770.3	3846481.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	1	3	0.5		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00164	D6A5B0	9	7/29/2013	275770.44	3846451.11	Cultural Debris	Scrap	Bracket	N/A	N/A	1	2	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00165	D6A5B0	71.62	7/29/2013	275770.44	3846461.51	Cultural Debris	Scrap	Rebar	N/A	N/A	2	10	3		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00166	D6A5B0	549.72	7/29/2013	275770.64	3846457.31	Cultural Debris	Scrap	Pipe, vehicle parts	N/A	N/A	4	10	15		32		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00167	D6A5B0	42.58	7/29/2013	275770.64	3846477.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	10	3		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00168	D6A5B0	21.3	7/29/2013	275770.64	3846482.71	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	3		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00169	D6A5B0	961.27	7/29/2013	275770.89	3846468.67	Facility Resource	Utility	N/A	N/A	N/A	1	24	0		2300				Left in Place	None		7/23/2013	2
D6A5B0-00170	D6A5B0	24.19	7/29/2013	275771.04	3846499.51	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	8	1		7.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00171	D6A5B0	519.07	7/29/2013	275771.24	3846463.91	Cultural Debris	Scrap	Pipe, vehicle parts	N/A	N/A	2	8	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00172	D6A5B0	97.19	7/29/2013	275771.24	3846490.11	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	2		1.7				Scrap Bin	None		7/23/2013	2
D6A5B0-00173	D6A5B0	27.02	7/29/2013	275771.27	3846491.41	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	2		3.1				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00174	D6A5B0	3.48	7/29/2013	275771.36	3846479.69	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	0.5		0.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00175	D6A5B0	24.49	7/29/2013	275771.44	3846486.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	2		2.9				Scrap Bin	None		7/23/2013	2
D6A5B0-00176	D6A5B0	65.53	7/29/2013	275771.44	3846496.51	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	20	12	1		5.1		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00177	D6A5B0	26.26	7/29/2013	275771.84	3846483.11	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	1	8	3		2.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00178	D6A5B0	36.73	7/29/2013	275772	3846476.78	Cultural Debris	Scrap	Rebar	N/A	N/A	2	9	4		0.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00179	D6A5B0	44.75	7/29/2013	275772.03	3846466.39	Cultural Debris	Scrap	Wire	N/A	N/A	3	8	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00180	D6A5B0	6.06	7/29/2013	275772.03	3846488.4	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	0.2		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00181	D6A5B0	28.06	7/29/2013	275772.03	3846498.1	Cultural Debris	Scrap	Steel	N/A	N/A	4	12	1		6.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00182	D6A5B0	107.18	7/29/2013	275772.04	3846452.31	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00183	D6A5B0	159.01	7/29/2013	275772.04	3846461.11	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	7	6	2		60		Y		Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00184	D6A5B0	333.05	7/29/2013	275772.04	3846473.51	Cultural Debris	Scrap	Tent stake	N/A	N/A	4	8	6		7.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00185	D6A5B0	30.4	7/30/2013	275772.04	3846495.11	Cultural Debris	Scrap	Nail	N/A	N/A	10	10	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00186	D6A5B0	70.04	7/30/2013	275772.44	3846459.11	Cultural Debris	Scrap	Steel, wire	Wire in tree	N/A	2	9	2		7.5				Left in Place	None	Could not clear, tree grown around wire	7/23/2013	2
D6A5B0-00187	D6A5B0	13.88	7/30/2013	275772.64	3846480.51	Cultural Debris	Scrap	Steel	N/A	N/A	1	10	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00188	D6A5B0	18.18	7/30/2013	275772.64	3846481.51	Cultural Debris	Scrap	Wire	N/A	N/A	1	5	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00189	D6A5B0	8.26	7/30/2013	275772.72	3846492.74	Cultural Debris	Scrap	Nail, steel	N/A	N/A	2	6	1		4.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00190	D6A5B0	184.51	7/30/2013	275772.76	3846463.97	Cultural Debris	Scrap	Steel plate	N/A	N/A	1	0	3		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00191	D6A5B0	65.67	7/30/2013	275773.06	3846457.38	Cultural Debris	Scrap	Tent stake	N/A	N/A	3	12	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00192	D6A5B0	24.27	7/30/2013	275773.24	3846489.11	Cultural Debris	Scrap	door knob	N/A	N/A	2	8	2		2.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00193	D6A5B0	56.59	7/30/2013	275773.44	3846453.31	Cultural Debris	Scrap	pipe	N/A	N/A	2	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00194	D6A5B0	29.62	7/30/2013	275773.5	3846465.96	Cultural Debris	Scrap	nail, wire	N/A	N/A	2	10	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00195	D6A5B0	7.87	7/30/2013	275773.5	3846484.6	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	3	10	3		35		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00196	D6A5B0	9.24	7/30/2013	275773.52	3846471.13	Cultural Debris	Scrap	Nail	N/A	N/A	1	10	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00197	D6A5B0	6.39	7/30/2013	275773.64	3846476.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	0.5		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00198	D6A5B0	58.58	7/30/2013	275773.95	3846486.45	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	2		2.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00199	D6A5B0	57.33	7/30/2013	275774.04	3846459.51	Cultural Debris	Scrap	Banding	N/A	N/A	3	4	3		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00200	D6A5B0	10.2	7/30/2013	275774.23	3846472.53	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	2	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00201	D6A5B0	802.53	7/30/2013	275774.24	3846498.91	Cultural Debris	Scrap	Chain, nail, rebar	N/A	N/A	3	3	30		6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00202	D6A5B0	100.88	7/30/2013	275774.44	3846493.31	Cultural Debris	Scrap	Bolt, nail, wire	N/A	N/A	4	9	10		12				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00203	D6A5B0	69.29	7/30/2013	275774.84	3846461.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	9	4		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00204	D6A5B0	27.96	7/30/2013	275774.84	3846470.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	2		3.4				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00205	D6A5B0	13.3	7/30/2013	275774.84	3846474.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00206	D6A5B0	262.21	7/30/2013	275774.84	3846483.31	Cultural Debris	Scrap	Rebar	N/A	N/A	2	10	5		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00207	D6A5B0	7.48	7/30/2013	275774.84	3846495.51	Cultural Debris	Scrap	Nail, steel	N/A	N/A	3	8	1		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00208	D6A5B0	34.34	7/30/2013	275774.99	3846490.01	Cultural Debris	Scrap	Vehicle parts, banding	N/A	N/A	3	12	1		8.7		Y		Scrap Bin	None	Could not clear, trash pit	7/23/2013	2
D6A5B0-00209	D6A5B0	22.75	7/30/2013	275774.99	3846462.69	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00210	D6A5B0	77.35	7/30/2013	275775.04	3846464.91	Cultural Debris	Scrap	Rebar	N/A	N/A	1	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00211	D6A5B0	36.45	7/30/2013	275775.04	3846479.11	Cultural Debris	Scrap	Steel	N/A	N/A	1	12	3		1.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00212	D6A5B0	148.46	7/30/2013	275775.64	3846450.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	8	6		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00213	D6A5B0	49.01	7/30/2013	275775.66	3846465.65	Cultural Debris	Scrap	Post, wire	N/A	N/A	2	4	3		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00214	D6A5B0	70.65	7/30/2013	275775.73	3846482.42	Cultural Debris	Scrap	Spike	N/A	N/A	1	0	1		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00215	D6A5B0	84.53	7/30/2013	275775.84	3846471.31	Cultural Debris	Scrap	Rebar	N/A	N/A	2	6	3		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00216	D6A5B0	52.66	7/30/2013	275776.04	3846457.11	Cultural Debris	Scrap	Banding, nail	N/A	N/A	10	12	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00217	D6A5B0	4.74	7/30/2013	275776.44	3846452.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00218	D6A5B0	60.89	7/30/2013	275776.44	3846467.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00219	D6A5B0	24.21	7/30/2013	275776.44	3846480.31	Cultural Debris	Scrap	Wire	N/A	N/A	3	8	0.5		8.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00220	D6A5B0	30.14	7/30/2013	275776.52	3846493.75	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	6	12	1		9.2				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B0-00221	D6A5B0	102.81	7/30/2013	275776.64	3846469.31	Cultural Debris	Scrap	Rebar	N/A	N/A	4	10	3		3.1				Scrap Bin	None	Could not clear	7/23/2013	2

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B0-00222	D6A5B0	125.87	7/30/2013	275776.64	3846470.51	Cultural Debris	Scrap	Nail, rebar, steel	N/A	N/A	5	10	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00223	D6A5B0	15.61	7/30/2013	275777.2	3846455.43	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00224	D6A5B0	957.13	7/30/2013	275777.24	3846474.91	Cultural Debris	Scrap	Stake	N/A	N/A	4	12	10		1.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00225	D6A5B0	17.62	7/30/2013	275777.25	3846498.38	Cultural Debris	Scrap	Nail, wire	Wire in tree	N/A	2	8	1		6		Y		Left in Place	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00226	D6A5B0	75.83	7/30/2013	275777.44	3846458.51	Cultural Debris	Scrap	Metal rod	N/A	N/A	1	20	0		89				Left in Place	None		7/23/2013	2
D6A5B0-00227	D6A5B0	100.47	7/30/2013	275777.64	3846463.51	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	3	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00228	D6A5B0	14375.82	7/30/2013	275777.64	3846489.51	Facility Resource	Manhole Cover	N/A	N/A	N/A	1	0	0		14000				Left in Place	None		7/23/2013	2
D6A5B0-00229	D6A5B0	61.5	7/30/2013	275778.04	3846465.11	Cultural Debris	Scrap	Rebar	N/A	N/A	1	10	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00230	D6A5B0	1104.88	7/30/2013	275778.04	3846475.71	Cultural Debris	Scrap	Stake	N/A	N/A	3	12	10		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00231	D6A5B0	48.06	7/30/2013	275778.24	3846456.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	12	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00124	D6A5B0	21.42	7/29/2013	275765.44	3846495.71	TBD	Greater than 2 feet	N/A	N/A	N/A	0	24	0		21				Left in Place	None	Dug to investigation depth of 2 ft	7/23/2013	2
D6A5B0-00233	D6A5B0	19.82	7/30/2013	275778.64	3846460.51	Cultural Debris	Scrap	Rebar	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00011	D6A5B9	19.07	8/6/2013	275751.64	3846401.51	Other	Fuel	Smelled of Petroleum	N/A	N/A	0	18	0		18				Left in Place	None	Stopped once odor of petroleum was noticed	7/23/2013	2
D6A5B0-00235	D6A5B0	398.51	7/30/2013	275778.64	3846482.11	Cultural Debris	Scrap	Post	N/A	N/A	1	24	0		330				Left in Place	None	Steel post left in ground	7/23/2013	2
D6A5B0-00236	D6A5B0	10.99	7/30/2013	275778.77	3846452.23	Cultural Debris	Scrap	Wire	N/A	N/A	1	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00237	D6A5B0	24.62	7/30/2013	275778.84	3846468.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	8	1		2.7				Scrap Bin	None		7/23/2013	2
D6A5B0-00238	D6A5B0	10.12	7/30/2013	275778.84	3846473.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	4	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00239	D6A5B0	32.35	7/30/2013	275779.44	3846450.71	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00240	D6A5B0	25.91	7/30/2013	275779.44	3846466.31	Cultural Debris	Scrap	Nail, pipe	N/A	N/A	2	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00241	D6A5B0	22.5	7/30/2013	275779.44	3846497.91	Cultural Debris	Scrap	Nail, steel	N/A	N/A	5	10	3		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00242	D6A5B0	42.86	7/30/2013	275779.47	3846486.69	Cultural Debris	Scrap	Nail, steel	N/A	N/A	6	10	2		0.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00140	D6A5B0	29.28	7/29/2013	275767.47	3846481.15	TBD	Greater than 2 feet	N/A	N/A	N/A	0	24	0		64				Left in Place	None	Dug to investigation depth of 2 ft	7/23/2013	2
D6A5B0-00244	D6A5B0	164.3	7/30/2013	275780.04	3846454.11	Cultural Debris	Scrap	Stake in tree	N/A	N/A	1	6	0		230				Left in Place	None		7/23/2013	2
D6A5B0-00245	D6A5B0	30.53	7/30/2013	275780.04	3846479.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	12	2		0.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00246	D6A5B0	41.04	7/30/2013	275780.04	3846494.71	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	6	10	2		5.6		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00247	D6A5B0	9	7/30/2013	275780.21	3846467.15	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00248	D6A5B0	35.48	7/30/2013	275780.21	3846470.25	Cultural Debris	Scrap	Nail, wire	N/A	N/A	8	8	2		8		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00249	D6A5B0	45.15	7/30/2013	275780.24	3846468.91	Cultural Debris	Scrap	Nail	N/A	N/A	5	6	2		8		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00250	D6A5B0	28.05	7/30/2013	275780.24	3846473.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00251	D6A5B0	43.12	7/30/2013	275780.44	3846457.11	Cultural Debris	Scrap	Nail, tin, pully	N/A	N/A	1	20	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00252	D6A5B0	16.62	7/30/2013	275780.97	3846489.2	Cultural Debris	Scrap	Nail, steel	N/A	N/A	2	6	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00253	D6A5B0	34.68	7/30/2013	275781.04	3846469.64	Cultural Debris	Scrap	Nail	N/A	N/A	7	12	2		8		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00254	D6A5B0	24.4	7/30/2013	275781.04	3846474.51	Cultural Debris	Scrap	Rebar	N/A	N/A	3	8	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00255	D6A5B0	56.6	7/30/2013	275781.04	3846499.71	Cultural Debris	Scrap	Steel	N/A	N/A	4	12	3		1.5				Scrap Bin	None		7/23/2013	2
D6A5B0-00256	D6A5B0	96.9	7/30/2013	275781.06	3846459.49	Cultural Debris	Scrap	Steel	N/A	N/A	1	12	3		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00257	D6A5B0	3355.46	7/30/2013	275781.44	3846463.91	Cultural Debris	Scrap	Braket, metal clips	N/A	N/A	30	12	40		346		Y		Scrap Bin	None	Could not clear, construcition debris	7/23/2013	2
D6A5B0-00258	D6A5B0	15.32	7/30/2013	275781.44	3846487.31	Cultural Debris	Scrap	Nail	N/A	N/A	3	12	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00259	D6A5B0	133.31	7/30/2013	275781.84	3846481.91	Cultural Debris	Scrap	Tent stake	N/A	N/A	3	19	3		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00260	D6A5B0	101.55	7/30/2013	275782.24	3846493.71	Cultural Debris	Scrap	Wire	N/A	N/A	4	8	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00261	D6A5B0	5.33	7/30/2013	275782.44	3846471.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00262	D6A5B0	31.46	7/30/2013	275782.44	3846496.71	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	1		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00263	D6A5B0	203.38	7/30/2013	275782.84	3846452.51	Cultural Debris	Scrap	Pipe	N/A	N/A	3	8	6		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00264	D6A5B0	103.46	7/30/2013	275782.84	3846458.91	Cultural Debris	Scrap	Banding, steel	N/A	N/A	3	6	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00265	D6A5B0	45.66	7/30/2013	275783.04	3846474.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	10	9	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00266	D6A5B0	47.41	7/30/2013	275783.2	3846475.57	Cultural Debris	Scrap	Nail, wire	N/A	N/A	14	12	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00267	D6A5B0	45.1	7/30/2013	275783.24	3846456.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	10	1		3				Scrap Bin	None		7/23/2013	2
D6A5B0-00268	D6A5B0	155.99	7/30/2013	275783.24	3846487.31	Cultural Debris	Scrap	Nail, tent stake	N/A	N/A	7	12	6		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00269	D6A5B0	27.61	7/30/2013	275783.24	3846490.91	Cultural Debris	Scrap	Nail, tent stake	N/A	N/A	3	8	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00270	D6A5B0	149.61	7/30/2013	275783.29	3846463	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	10	12	1		26		Y		Scrap Bin	None	Could not clear, construcition debris	7/23/2013	2
D6A5B0-00271	D6A5B0	22.25	7/30/2013	275783.44	3846467.11	Cultural Debris	Scrap	Wire, bracket	N/A	N/A	1	5	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00272	D6A5B0	57.78	7/30/2013	275783.44	3846470.31	Cultural Debris	Scrap	Wire	N/A	N/A	2	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00273	D6A5B0	102.25	7/30/2013	275783.44	3846485.31	Cultural Debris	Scrap	Stake	N/A	N/A	4	12	6		6				Scrap Bin	None		7/23/2013	2
D6A5B0-00274	D6A5B0	53.12	7/30/2013	275784.04	3846457.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00275	D6A5B0	11.55	7/30/2013	275784.09	3846454.54	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	6	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00276	D6A5B0	3.8	7/30/2013	275784.44	3846497.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00277	D6A5B0	41.6	7/30/2013	275784.64	3846462.51	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	4	10	3		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00278	D6A5B0	31.28	7/30/2013	275784.74	3846484.15	Cultural Debris	Scrap	Tent stake	N/A	N/A	8	12	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00279	D6A5B0	13.21	7/30/2013	275784.76	3846491.05	Cultural Debris	Scrap	Nail, wire, bolt	N/A	N/A	6	8	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00280	D6A5B0	59.2	7/30/2013	275784.84	3846451.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	4	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00281	D6A5B0	7.26	7/30/2013	275785.04	3846495.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00282	D6A5B0	21.53	7/30/2013	275785.44	3846461.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	8	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00283	D6A5B0	52.66	7/30/2013	275785.64	3846470.71	Cultural Debris	Scrap	Nail	N/A	N/A	10	18	2		13		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00284	D6A5B0	48.84	7/30/2013	275785.64	3846472.91	Cultural Debris	Scrap	Nail, aluminum rod	N/A	N/A	3	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00285	D6A5B0	31.74	7/30/2013	275786.04	3846456.91	Cultural Debris	Scrap	Nail, tent stake	N/A	N/A	1	8	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00286	D6A5B0	34.14	7/30/2013	275786.04	3846484.91	Cultural Debris	Scrap	Steel	N/A	N/A	2	8	4		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00287	D6A5B0	19.55	7/30/2013	275786.04	3846493.11	Cultural Debris	Scrap	Rebar	N/A	N/A	3	4	1		2.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00288	D6A5B0	32.39	7/30/2013	275786.24	3846475.11	Cultural Debris	Scrap	Nail	N/A	N/A	7	6	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00289	D6A5B0	13.97	7/30/2013	275786.24	3846489.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	6	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00290	D6A5B0	11.92	7/30/2013	275786.24	3846491.71	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	6	1		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00291	D6A5B0	13.03	7/30/2013	275786.24	3846499.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	8	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00292	D6A5B0	233.81	7/30/2013	275786.84	3846465.11	Cultural Debris	Scrap	Nail	N/A	N/A	10	24	3		35		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00293	D6A5B0	41.14	7/30/2013	275786.84	3846486.11	Cultural Debris	Scrap	Nail, bolt, rebar	N/A	N/A	4	8	3		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00294	D6A5B0	9.9	7/30/2013	275787.44	3846454.51	Cultural Debris	Scrap	Nail, spike	N/A	N/A	1	4	2		1.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00295	D6A5B0	23.42	7/30/2013	275787.44	3846472.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	1	0	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00296	D6A5B0	24.1	7/30/2013	275787.64	3846467.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	12	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00297	D6A5B0	26.55	7/30/2013	275787.64	3846468.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	18	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00298	D6A5B0	25.07	7/30/2013	275787.64	3846488.91	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	4	8	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00299	D6A5B0	24.17	7/30/2013	275787.64	3846496.31	Cultural Debris	Scrap	Nail, wire	Wire in tree	N/A	4	4	1		12				Left in Place	None		7/23/2013	2
D6A5B0-00300	D6A5B0	25.52	7/30/2013	275787.66	3846470.56	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00301	D6A5B0	13.3	7/30/2013	275787.68	3846487.38	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00302	D6A5B0	19.8	7/30/2013	275787.7	3846451.38	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00303	D6A5B0	31.6	7/30/2013	275787.7	3846462.1	Cultural Debris	Scrap	Wire	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B0-00304	D6A5B0	16.82	7/30/2013	275787.84	3846493.11	Cultural Debris	Scrap	Rebar	N/A	N/A	1	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00305	D6A5B0	16.56	7/30/2013	275788.04	3846490.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	8	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00306	D6A5B0	38.54	7/30/2013	275788.24	3846456.31	Cultural Debris	Scrap	Steel plate	N/A	N/A	1	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00307	D6A5B0	128.29	7/30/2013	275788.24	3846464.51	Cultural Debris	Scrap	Nail, cable	N/A	N/A	10	24	2		25		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B0-00308	D6A5B0	13.98	7/30/2013	275788.24	3846492.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	12	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00309	D6A5B0	56.33	7/30/2013	275788.44	3846450.11	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	12	3		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00310	D6A5B0	27.53	7/30/2013	275788.44	3846458.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		1				Scrap Bin	None		7/23/2013	2
D6A5B0-00311	D6A5B0	50.2	7/30/2013	275788.44	3846461.11	Cultural Debris	Scrap	Wire	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00312	D6A5B0	88.8	7/30/2013	275788.44	3846483.11	Cultural Debris	Scrap	Rebar	N/A	N/A	2	12	2		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00313	D6A5B0	12.36	7/30/2013	275788.64	3846497.71	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	1		7				Scrap Bin	None		7/23/2013	2
D6A5B0-00314	D6A5B0	11.38	7/30/2013	275788.64	3846499.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00315	D6A5B0	14.04	7/30/2013	275789.2	3846468.38	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00316	D6A5B0	14.67	7/30/2013	275789.22	3846486.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00317	D6A5B0	48.12	7/30/2013	275789.24	3846462.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00318	D6A5B0	112.55	7/30/2013	275789.24	3846482.31	Cultural Debris	Scrap	Banding	N/A	N/A	1	12	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00319	D6A5B0	15.06	7/30/2013	275789.24	3846488.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00320	D6A5B0	16.73	7/30/2013	275789.25	3846484.74	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00321	D6A5B0	96.27	7/30/2013	275789.44	3846451.71	Cultural Debris	Scrap	Hammer	N/A	N/A	1	4	5		1.2				Scrap Bin	None		7/23/2013	2
D6A5B0-00322	D6A5B0	40.75	7/30/2013	275789.84	3846472.51	Cultural Debris	Scrap	Nail, wire, steel	N/A	N/A	5	6	3		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00323	D6A5B0	8.26	7/30/2013	275790.03	3846460.7	Cultural Debris	Scrap	Wire	N/A	N/A	1	4	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00324	D6A5B0	138.43	7/30/2013	275790.04	3846455.11	Cultural Debris	Scrap	Cable	N/A	N/A	1	4	10		30				Left in Place	None		7/23/2013	2
D6A5B0-00325	D6A5B0	63.04	7/30/2013	275790.04	3846456.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	4	3		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00326	D6A5B0	4.04	7/30/2013	275790.04	3846466.31	Cultural Debris	Scrap	Nail	Metal in tree	N/A	1	0	1		3.1				Left in Place	None		7/23/2013	2
D6A5B0-00327	D6A5B0	18.1	7/30/2013	275790.24	3846485.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00328	D6A5B0	35.72	7/30/2013	275790.44	3846490.71	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	4	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00329	D6A5B0	7.56	7/30/2013	275790.69	3846461.98	Cultural Debris	Scrap	Nail	N/A	N/A	3	8	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00330	D6A5B0	13.18	7/30/2013	275790.84	3846468.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	4	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00331	D6A5B0	15.69	7/30/2013	275790.84	3846481.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00332	D6A5B0	30.55	7/30/2013	275791.44	3846475.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	0	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00333	D6A5B0	2250.63	7/30/2013	275791.44	3846478.11	Cultural Debris	Scrap	Pipe, clamp	N/A	N/A	1	6	90		2.8				Scrap Bin	None		7/23/2013	2
D6A5B0-00334	D6A5B0	15.9	7/30/2013	275791.44	3846484.31	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	9	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00335	D6A5B0	8.63	7/30/2013	275791.45	3846480.78	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	8	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00336	D6A5B0	18.8	7/30/2013	275791.64	3846456.71	Cultural Debris	Scrap	Nail, steel	N/A	N/A	2	9	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B0-00337	D6A5B0	27.77	7/30/2013	275792.04	3846474.71	Cultural Debris	Scrap	Nail, wire, can	N/A	N/A	2	12	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00338	D6A5B0	15.56	7/30/2013	275792.24	3846460.31	Cultural Debris	Scrap	Nail	N/A	N/A	1	9	1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00339	D6A5B0	14.89	7/30/2013	275792.24	3846462.51	Cultural Debris	Scrap	Nail, steel	N/A	N/A	4	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00340	D6A5B0	32.49	7/30/2013	275792.24	3846464.31	Cultural Debris	Scrap	Rebar, aluminum can	N/A	N/A	2	8	1		1.1				Scrap Bin	None		7/23/2013	2
D6A5B0-00341	D6A5B0	12.04	7/30/2013	275792.64	3846458.91	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	0.1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00342	D6A5B0	61.05	7/30/2013	275792.84	3846452.91	Cultural Debris	Scrap	Brake pad	N/A	N/A	1	0	2		1.4				Scrap Bin	None		7/23/2013	2
D6A5B0-00343	D6A5B0	8.97	7/30/2013	275792.84	3846472.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	0	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00344	D6A5B0	18.32	7/30/2013	275792.85	3846473.31	Cultural Debris	Scrap	Wire	N/A	N/A	3	12	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00345	D6A5B0	155.1	7/30/2013	275793.04	3846456.31	Cultural Debris	Scrap	Tent stake	Stake in tree	N/A	1	12	0		330				Left in Place	None		7/23/2013	2
D6A5B0-00346	D6A5B0	6.43	7/30/2013	275793.44	3846458.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	0.1		2				Scrap Bin	None		7/23/2013	2
D6A5B0-00347	D6A5B0	6.71	7/30/2013	275793.54	3846467.03	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00348	D6A5B0	26.56	7/30/2013	275793.66	3846469.52	Cultural Debris	Scrap	Nail	N/A	N/A	6	12	2		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00349	D6A5B0	11.27	7/30/2013	275794.04	3846466.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	1	9	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B0-00350	D6A5B0	4.32	7/30/2013	275794.44	3846450.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00351	D6A5B0	3.96	7/30/2013	275794.49	3846459.99	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	0.1		0				Scrap Bin	None		7/23/2013	2
D6A5B0-00352	D6A5B0	26.32	7/30/2013	275795.24	3846455.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	18	0		134				Left in Place	None		7/23/2013	2
D6A5B0-00353	D6A5B0	999	7/30/2013	275749.99	3846461.18	Facility Resource	Utility	N/A	N/A	N/A	1	24	0		999				Left in Place	None	Active utility	7/23/2013	2
D6A5B8-00003	D6A5B8	172.05	8/1/2013	275750.4	3846396.83	Cultural Debris	Concrete	Concrete	N/A	N/A	0	4	0		48				Left in Place	None	Could not clear, large piece of concrete	7/23/2013	2
D6A5B8-00005	D6A5B8	38.13	8/1/2013	275750.96	3846386.18	Cultural Debris	Scrap	Steel	N/A	N/A	3	4	2		2.3				Scrap Bin	None		7/23/2013	2
D6A5B8-00012	D6A5B8	292.81	8/1/2013	275752.06	3846388.48	TBD	Greater than 2 feet	N/A	N/A	N/A	0	24	0		281				Left in Place	None	Dug to investigation depth of 2 ft	7/23/2013	2
D6A5B9-00065	D6A5B9	54.18	8/5/2013	275759.28	3846446.11	TBD	Greater than 2 feet	N/A	N/A	N/A	7	24	2		20				Left in Place	None	Dug to investigation depth of 2 ft	7/23/2013	2
D6A5B8-00013	D6A5B8	120.51	8/1/2013	275752.11	3846394.03	Cultural Debris	Concrete	Concrete	N/A	N/A	0	6	0		34				Left in Place	None	Could not clear, large piece of concrete	7/23/2013	2
D6A5B8-00009	D6A5B8	51.87		275751.11	3846397.73																	7/23/2013	2
D6A5B8-00019	D6A5B8	9.85	8/1/2013	275752.84	3846398.91	Cultural Debris	Scrap	Wire	N/A	N/A	1	5	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B8-00018	D6A5B8	18.39		275752.49	3846396.91																	7/23/2013	2
D6A5B8-00024	D6A5B8	3451.11		275754.04	3846387.71																	7/23/2013	2
D6A5B8-00025	D6A5B8	515.69		275754.04	3846394.71																	7/23/2013	2
D6A5B8-00034	D6A5B8	11.23		275755.5	3846398.06																	7/23/2013	2
D6A5B8-00038	D6A5B8	18.07		275756.84	3846397.91																	7/23/2013	2
D6A5B8-00039	D6A5B8	383.38		275756.9	3846387.06																	7/23/2013	2
D6A5B8-00046	D6A5B8	25.87		275758.49	3846387.54																	7/23/2013	2
D6A5B8-00048	D6A5B8	7.12		275758.6	3846389.98																	7/23/2013	2
D6A5B8-00049	D6A5B8	114.67		275758.64	3846394.71																	7/23/2013	2
D6A5B8-00054	D6A5B8	6.59		275759.24	3846392.11																	7/23/2013	2
D6A5B8-00055	D6A5B8	1131.19		275760.04	3846399.17																	7/23/2013	2
D6A5B8-00057	D6A5B8	116.76		275760.04	3846386.11																	7/23/2013	2
D6A5B8-00058	D6A5B8	81.02		275760.04	3846388.91																	7/23/2013	2
D6A5B8-00063	D6A5B8	19.65		275761.44	3846392.31																	7/23/2013	2
D6A5B8-00067	D6A5B8	85.78		275761.92	3846387.65																	7/23/2013	2
D6A5B8-00071	D6A5B8	83.49		275762.24	3846390.11																	7/23/2013	2
D6A5B8-00072	D6A5B8	31.61		275762.24	3846394.71																	7/23/2013	2
D6A5B8-00076	D6A5B8	53.17		275762.55	3846386.77																	7/23/2013	2
D6A5B8-00077	D6A5B8	76.71		275763.04	3846397.31																	7/23/2013	2
D6A5B8-00082	D6A5B8	68.41		275764.24	3846391.51																	7/23/2013	2
D6A5B8-00083	D6A5B8	20.52		275764.44	3846394.91																	7/23/2013	2
D6A5B8-00088	D6A5B8	130.38		275765.24	3846389.51																	7/23/2013	2
D6A5B8-00090	D6A5B8	141.94		275766.04	3846391.11																	7/23/2013	2
D6A5B8-00098	D6A5B8	289.95		275767.44	3846386.71																	7/23/2013	2
D6A5B8-00099	D6A5B8	10.92		275767.44	3846389.51																	7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B8-00100	D6A5B8	17		275767.44	3846391.71																	7/23/2013	2
D6A5B8-00101	D6A5B8	19.23		275767.44	3846395.11																	7/23/2013	2
D6A5B8-00104	D6A5B8	19.02		275768.04	3846399.31																	7/23/2013	2
D6A5B8-00109	D6A5B8	8.79		275768.84	3846390.11																	7/23/2013	2
D6A5B8-00113	D6A5B8	5.26		275769.04	3846387.54																	7/23/2013	2
D6A5B8-00118	D6A5B8	3.66		275769.81	3846386.47																	7/23/2013	2
D6A5B8-00128	D6A5B8	34.13		275771.33	3846385.66																	7/23/2013	2
D6A5B8-00131	D6A5B8	89.51		275772.24	3846386.91																	7/23/2013	2
D6A5B8-00139	D6A5B8	38.64		275773.64	3846389.11																	7/23/2013	2
D6A5B8-00140	D6A5B8	33.27		275773.64	3846396.91																	7/23/2013	2
D6A5B8-00161	D6A5B8	17.1		275777.64	3846395.71																	7/23/2013	2
D6A5B8-00166	D6A5B8	26.87		275778.82	3846398.1																	7/23/2013	2
D6A5B8-00173	D6A5B8	29.38		275779.44	3846392.71																	7/23/2013	2
D6A5B8-00174	D6A5B8	2643.03		275779.64	3846386.51																	7/23/2013	2
D6A5B8-00177	D6A5B8	18.41		275780.22	3846393.45																	7/23/2013	2
D6A5B8-00180	D6A5B8	105.23		275780.24	3846397.11																	7/23/2013	2
D6A5B8-00186	D6A5B8	200.01		275781.64	3846391.31																	7/23/2013	2
D6A5B8-00192	D6A5B8	9.78		275782.44	3846398.11																	7/23/2013	2
D6A5B8-00193	D6A5B8	3.18		275782.47	3846396.36																	7/23/2013	2
D6A5B8-00196	D6A5B8	41.44		275783.25	3846391.97																	7/23/2013	2
D6A5B8-00200	D6A5B8	29.42		275784.69	3846391.34																	7/23/2013	2
D6A5B8-00202	D6A5B8	160.88		275784.84	3846395.91																	7/23/2013	2
D6A5B8-00206	D6A5B8	5.71		275785.42	3846397.95																	7/23/2013	2
D6A5B8-00208	D6A5B8	1149.58		275785.44	3846393.11																	7/23/2013	2
D6A5B8-00210	D6A5B8	99.79		275786.24	3846391.82																	7/23/2013	2
D6A5B8-00222	D6A5B8	12.25		275787.64	3846390.91																	7/23/2013	2
D6A5B8-00223	D6A5B8	439.74		275787.64	3846397.11																	7/23/2013	2
D6A5B8-00227	D6A5B8	42.4		275788.44	3846388.51																	7/23/2013	2
D6A5B8-00231	D6A5B8	4.45		275789.22	3846393.22																	7/23/2013	2
D6A5B8-00239	D6A5B8	27.15		275790	3846397.99																	7/23/2013	2
D6A5B8-00240	D6A5B8	24.62		275790.04	3846386.21																	7/23/2013	2
D6A5B8-00242	D6A5B8	7.22		275790.04	3846391.31																	7/23/2013	2
D6A5B8-00243	D6A5B8	528.57		275790.04	3846399.91																	7/23/2013	2
D6A5B8-00249	D6A5B8	8.47		275790.85	3846389.28																	7/23/2013	2
D6A5B8-00252	D6A5B8	225.49		275791.44	3846393.91																	7/23/2013	2
D6A5B8-00256	D6A5B8	762.9		275791.84	3846398.91																	7/23/2013	2
D6A5B8-00263	D6A5B8	5466.41		275792.84	3846397.11																	7/23/2013	2
D6A5B8-00265	D6A5B8	20.67		275793.04	3846388.31																	7/23/2013	2
D6A5B8-00268	D6A5B8	61.68		275793.44	3846385.91																	7/23/2013	2
D6A5B8-00271	D6A5B8	7.8		275793.69	3846394.04																	7/23/2013	2
D6A5B8-00274	D6A5B8	3.94		275794.04	3846391.91																	7/23/2013	2
D6A5B8-00280	D6A5B8	7446.3		275794.64	3846399.31																	7/23/2013	2
D6A5B8-00283	D6A5B8	30.63		275795.24	3846386.11																	7/23/2013	2
D6A5B8-00284	D6A5B8	42.41		275795.24	3846394.31																	7/23/2013	2
D6A5B8-00286	D6A5B8	3.41		275795.35	3846390.97																	7/23/2013	2
D6A5B8-00290	D6A5B8	82.19		275796.04	3846395.51																	7/23/2013	2
D6A5B8-00293	D6A5B8	40.66		275796.68	3846394.55																	7/23/2013	2
D6A5B8-00297	D6A5B8	390.99		275796.84	3846387.91																	7/23/2013	2
D6A5B8-00298	D6A5B8	19.68		275796.84	3846392.51																	7/23/2013	2
D6A5B8-00299	D6A5B8	5072.6		275796.84	3846398.51																	7/23/2013	2
D6A5B8-00309	D6A5B8	4.49		275798.23	3846394.22																	7/23/2013	2
D6A5B8-00310	D6A5B8	38.11		275798.24	3846396.51																	7/23/2013	2
D6A5B8-00313	D6A5B8	17.36		275798.84	3846389.11																	7/23/2013	2
D6A5B8-00317	D6A5B8	27.27		275799.08	3846399.09																	7/23/2013	2
D6A5B8-00318	D6A5B8	71.94		275799.22	3846385.88																	7/23/2013	2
D6A5B8-00319	D6A5B8	13.29		275799.63	3846392.19																	7/23/2013	2
D6A5B9-00001	D6A5B9	21.39	8/6/2013	275750.04	3846440.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	3		15				Left in Place	None		7/23/2013	2
D6A5B9-00002	D6A5B9	360.32	8/6/2013	275750.04	3846445.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	2	0		281				Left in Place	None		7/23/2013	2
D6A5B9-00003	D6A5B9	45.1	8/6/2013	275750.84	3846414.51	Cultural Debris	Scrap	Pipe	N/A	N/A	4	10	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00004	D6A5B9	7.09	8/6/2013	275750.84	3846438.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00005	D6A5B9	371.96	8/6/2013	275750.84	3846447.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	0		436				Left in Place	None		7/23/2013	2
D6A5B9-00006	D6A5B9	416.63	8/6/2013	275751.03	3846432.42	Cultural Debris	Scrap	Cable Anchor	N/A	N/A	1	2	0		545				Left in Place	None		7/23/2013	2
D6A5B9-00007	D6A5B9	988.25	8/6/2013	275751.04	3846427.11	Cultural Debris	Scrap	Pipe, steel	N/A	N/A	25	12	50		1200		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00008	D6A5B9	74.75	8/6/2013	275751.04	3846436.91	Cultural Debris	Scrap	Alum can	N/A	N/A	3	6	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00009	D6A5B9	64.4	8/6/2013	275751.08	3846434.69	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	9	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00010	D6A5B9	185.11	8/6/2013	275751.24	3846421.91	Cultural Debris	Scrap	Pipe	N/A	N/A	10	10	12		17				Scrap Bin	None		7/23/2013	2
D6A5B0-00234	D6A5B0	44.43	7/30/2013	275778.64	3846461.91	QC	QC Seed	QC Seed	N/A	N/A	2	6	2		1.4				Consolidation Point	None		7/23/2013	2
D6A5B9-00012	D6A5B9	198.8	8/6/2013	275751.64	3846411.51	Cultural Debris	Scrap	Pipe	N/A	N/A	1	4	1		21				Scrap Bin	None		7/23/2013	2
D6A5B9-00013	D6A5B9	283.01	8/6/2013	275751.84	3846418.91	Cultural Debris	Scrap	Pipe	N/A	N/A	4	10	10		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00014	D6A5B9	16.02	8/6/2013	275751.84	3846443.71	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00015	D6A5B9	116.86	8/6/2013	275752.24	3846416.31	Cultural Debris	Scrap	Rebar, pipe	N/A	N/A	3	9	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00016	D6A5B9	511.8	8/6/2013	275752.44	3846439.31	Cultural Debris	Scrap	Nail, pipe	N/A	N/A	3	8	8		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00017	D6A5B9	295.67	8/6/2013	275752.46	3846430.08	Cultural Debris	Scrap	Pipe	N/A	N/A	6	17	20		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00018	D6A5B9	1102.88	8/6/2013	275752.84	3846408.31	Cultural Debris	Scrap	Rebar, pipe	N/A	N/A	7	24	20		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00019	D6A5B9	27.29	8/6/2013	275752.84	3846414.91	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00020	D6A5B9	196.75	8/6/2013	275753.04	3846419.11	Cultural Debris	Scrap	Nail	N/A	N/A	4	11	6		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00021	D6A5B9	136.89	8/6/2013	275753.04	3846420.91	Cultural Debris	Scrap	Pipe	N/A	N/A	4	9	7		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00022	D6A5B9	243.36	8/6/2013	275753.04	3846435.91	Cultural Debris	Scrap	Pipe, bolt, nails	N/A	N/A	10	16	22		50		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00023	D6A5B9	79.65	8/6/2013	275753.44	3846424.31	Cultural Debris	Scrap	Pipe	N/A	N/A	3	13	3		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00024	D6A5B9	420.47	8/6/2013	275753.44	3846437.71	Cultural Debris	Scrap	Pipe	N/A	N/A	13	10	20		87		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00025	D6A5B9	180.39	8/6/2013	275753.84	3846434.11	Cultural Debris	Scrap	Pipe	N/A	N/A	6	12	7		29				Scrap Bin	None		7/23/2013	2
D6A5B9-00026	D6A5B9	58.6	8/6/2013	275754.04	3846400.91	Cultural Debris	Scrap	Pipe, wire	N/A	N/A	3	7	2		1.4				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B9-00027	D6A5B9	2042.13	8/6/2013	275754.04	3846412.31	Cultural Debris	Scrap	Engineering stake	N/A	N/A	4	6	13		3.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00028	D6A5B9	177.9	8/6/2013	275754.64	3846445.11	Cultural Debris	Scrap	Pipe, steel	N/A	N/A	2	8	5		3.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00029	D6A5B9	21.9	8/6/2013	275754.73	3846440.63	Cultural Debris	Scrap	Nails	N/A	N/A	6	9	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00030	D6A5B9	33.75	8/6/2013	275754.73	3846423.31	Cultural Debris	Scrap	Nails, steel	N/A	N/A	4	13	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00031	D6A5B9	80.96	8/6/2013	275754.84	3846417.31	Cultural Debris	Scrap	Steel pin	N/A	N/A	1	6	5		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00032	D6A5B9	68.42	8/6/2013	275754.84	3846425.11	Cultural Debris	Scrap	Pipe	N/A	N/A	4	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00033	D6A5B9	35.93	8/6/2013	275754.84	3846442.11	Cultural Debris	Scrap	Nail	N/A	N/A	10	10	2		15		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00034	D6A5B9	12.11	8/6/2013	275754.84	3846448.91	Cultural Debris	Scrap	Pipe	N/A	N/A	3	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00035	D6A5B9	2272.26	8/6/2013	275755.04	3846414.31	Cultural Debris	Scrap	Chain	N/A	N/A	4	3	20		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00036	D6A5B9	150.73	8/6/2013	275755.24	3846430.51	Cultural Debris	Scrap	Pipe, metal, nails	N/A	N/A	10	15	18		115		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00037	D6A5B9	3522.61	8/6/2013	275755.44	3846409.31	Cultural Debris	Scrap	Engineering stake	N/A	N/A	8	3	15		18				Scrap Bin	None		7/23/2013	2
D6A5B9-00038	D6A5B9	120.02	8/6/2013	275755.46	3846407.03	Cultural Debris	Scrap	Chain	N/A	N/A	1	18	0		1330				Left in Place	None		7/23/2013	2
D6A5B9-00039	D6A5B9	19.57	8/6/2013	275755.5	3846418.4	Cultural Debris	Scrap	Steel, nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00040	D6A5B9	31.43	8/6/2013	275755.54	3846433.64	Cultural Debris	Scrap	Nail, pipe	N/A	N/A	3	8	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00041	D6A5B9	163.39	8/6/2013	275755.84	3846443.11	Cultural Debris	Scrap	Nail, pipe	N/A	N/A	10	12	6		13		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00042	D6A5B9	25.45	8/6/2013	275756.04	3846438.71	Cultural Debris	Scrap	Rebar, pin	N/A	N/A	1	6	1		3.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00043	D6A5B9	48.1	8/6/2013	275756.04	3846440.71	Cultural Debris	Scrap	Nails	N/A	N/A	6	7	2		15		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00044	D6A5B9	23.07	8/6/2013	275756.24	3846411.51	Cultural Debris	Scrap	Pipe	N/A	N/A	3	8	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00045	D6A5B9	85.03	8/6/2013	275756.24	3846425.51	Cultural Debris	Scrap	Pipe, nail	N/A	N/A	6	15	2		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00046	D6A5B9	172.66	8/6/2013	275756.24	3846446.51	Cultural Debris	Scrap	Anvil	N/A	N/A	2	8	10		6				Scrap Bin	None		7/23/2013	2
D6A5B9-00047	D6A5B9	1531.95	8/6/2013	275756.64	3846421.51	Cultural Debris	Scrap	Pipe, alum can	N/A	N/A	5	6	25		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00048	D6A5B9	34.99	8/6/2013	275756.84	3846416.11	Cultural Debris	Scrap	Bolts, washer	N/A	N/A	5	12	3		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00049	D6A5B9	95.66	8/6/2013	275756.84	3846429.51	Cultural Debris	Scrap	Pipe	N/A	N/A	16	12	10		45		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00050	D6A5B9	289.41	8/6/2013	275756.84	3846431.91	Cultural Debris	Scrap	Tent stake	N/A	N/A	10	12	20		113		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00051	D6A5B9	41.19	8/6/2013	275756.84	3846436.51	Cultural Debris	Scrap	Pipe	N/A	N/A	2	8	15		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00052	D6A5B9	201.92	8/6/2013	275756.84	3846445.51	Cultural Debris	Scrap	Nail, steel	N/A	N/A	10	12	3		20				Scrap Bin	None		7/23/2013	2
D6A5B9-00053	D6A5B9	24.47	8/6/2013	275757.44	3846424.31	Cultural Debris	Scrap	Pipe	N/A	N/A	2	6	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00054	D6A5B9	9901.8	8/6/2013	275757.64	3846442.71	Cultural Debris	Scrap	Steel pate	N/A	N/A	1	4	20		44				Scrap Bin	None		7/23/2013	2
D6A5B9-00055	D6A5B9	5.61	8/6/2013	275757.66	3846417.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00056	D6A5B9	1715.55	8/6/2013	275758.04	3846447.11	Cultural Debris	Scrap	Steel, pipe	N/A	N/A	2	4	6		16				Scrap Bin	None		7/23/2013	2
D6A5B9-00057	D6A5B9	415.13	8/5/2013	275758.24	3846435.31	Cultural Debris	Scrap	Wire	N/A	N/A	2	6	2		2.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00058	D6A5B9	363.11	8/5/2013	275758.24	3846439.71	Cultural Debris	Scrap	Concrete	N/A	N/A	0	0	0		780				Left in Place	None		7/23/2013	2
D6A5B9-00059	D6A5B9	471.69	8/5/2013	275758.56	3846400.42	Cultural Debris	Scrap	Rebar, can	N/A	N/A	7	8	9		2.5				Scrap Bin	None		7/23/2013	2
D6A5B9-00060	D6A5B9	43.19	8/5/2013	275758.64	3846420.51	Cultural Debris	Scrap	Pipe	N/A	N/A	3	6	2		2.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00061	D6A5B9	16.25	8/5/2013	275758.84	3846425.91	Cultural Debris	Scrap	Pipe, metal, nails	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00062	D6A5B9	49.05	8/5/2013	275758.84	3846428.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	2		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00063	D6A5B9	3.56	8/5/2013	275759.04	3846432.91	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00064	D6A5B9	1753.89	8/5/2013	275759.24	3846409.51	Cultural Debris	Scrap	Concrete	N/A	N/A	0	6	0		2800				Left in Place	None		7/23/2013	2
D6A5B8-00321	D6A5B8	140.38		275799.7	3846396.51																	7/23/2013	2
D6A5B9-00066	D6A5B9	28.4	8/5/2013	275759.37	3846416.04	Cultural Debris	Scrap	Nail	N/A	N/A	3	16	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00067	D6A5B9	472.82	8/5/2013	275759.44	3846414.51	Cultural Debris	Scrap	Steel grate	N/A	N/A	3	6	30		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00068	D6A5B9	2727.47	8/5/2013	275759.84	3846408.31	Cultural Debris	Scrap	Concrete	N/A	N/A	0	6	0		2000				Left in Place	None		7/23/2013	2
D6A5B9-00069	D6A5B9	40	8/5/2013	275759.84	3846420.31	Cultural Debris	Scrap	Wire, pipe	N/A	N/A	3	9	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00070	D6A5B9	13.92	8/5/2013	275759.96	3846426.86	Cultural Debris	Scrap	Wire	N/A	N/A	1	7	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00071	D6A5B9	30.06	8/5/2013	275759.99	3846437.18	Cultural Debris	Scrap	Nail, wire	N/A	N/A	6	9	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00072	D6A5B9	331.21	8/5/2013	275760.04	3846412.91	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	3	30		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00073	D6A5B9	40.22	8/5/2013	275760.04	3846418.51	Cultural Debris	Scrap	Pipe	N/A	N/A	3	6	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00074	D6A5B9	8.77	8/5/2013	275760.1	3846433.53	Cultural Debris	Scrap	Wire, nail	N/A	N/A	2	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00075	D6A5B9	75.28	8/5/2013	275760.64	3846422.31	Cultural Debris	Scrap	Pipe	N/A	N/A	2	5	3		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00076	D6A5B9	9.91	8/5/2013	275760.64	3846425.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00077	D6A5B9	63.74	8/5/2013	275760.82	3846448.18	Cultural Debris	Scrap	Anvil	N/A	N/A	2	8	2		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00078	D6A5B9	84.34	8/5/2013	275760.84	3846409.91	Cultural Debris	Scrap	Concrete	N/A	N/A	0	0	0		200				Left in Place	None		7/23/2013	2
D6A5B9-00079	D6A5B9	193.17	8/5/2013	275760.84	3846428.51	Cultural Debris	Scrap	Can, wire, pipe	N/A	N/A	2	2	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00080	D6A5B9	5.59	8/5/2013	275760.84	3846434.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00081	D6A5B9	236.55	8/5/2013	275760.84	3846439.11	Cultural Debris	Scrap	Steel grate	N/A	N/A	3	7	6		8.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00082	D6A5B9	103.28	8/5/2013	275761.04	3846431.91	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	2		16				Scrap Bin	None		7/23/2013	2
D6A5B9-00083	D6A5B9	24.24	8/5/2013	275761.24	3846417.31	Cultural Debris	Scrap	Banding	N/A	N/A	6	10	1		2.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00084	D6A5B9	278.59	8/5/2013	275761.24	3846430.11	Cultural Debris	Scrap	Pipe, rebar	N/A	N/A	6	9	5		7				Scrap Bin	None		7/23/2013	2
D6A5B9-00085	D6A5B9	995.35	8/5/2013	275761.24	3846442.31	Cultural Debris	Scrap	Plate, steel	N/A	N/A	1	6	25		6.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00086	D6A5B9	4.86	8/5/2013	275761.44	3846435.91	Cultural Debris	Scrap	Nail	N/A	N/A	6	7	1		23		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00087	D6A5B9	37.6	8/5/2013	275761.44	3846445.51	Cultural Debris	Scrap	Wire, nail, bolt	N/A	N/A	7	9	2		4				Scrap Bin	None		7/23/2013	2
D6A5B9-00088	D6A5B9	98.68	8/5/2013	275761.47	3846411.48	Cultural Debris	Scrap	Steel, pipe	N/A	N/A	3	9	3		18				Scrap Bin	None		7/23/2013	2
D6A5B9-00089	D6A5B9	120.81	8/5/2013	275762.04	3846420.11	Cultural Debris	Scrap	Alum rail	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00090	D6A5B9	163	8/5/2013	275762.21	3846439.63	Cultural Debris	Scrap	Steel grate	N/A	N/A	3	12	3		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00091	D6A5B9	345.43	8/5/2013	275762.24	3846447.71	Cultural Debris	Scrap	Concrete	N/A	N/A	1	0	0		460				Left in Place	None		7/23/2013	2
D6A5B9-00092	D6A5B9	72.5	8/5/2013	275762.27	3846427.04	Cultural Debris	Scrap	Can, rebar	N/A	N/A	3	7	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00093	D6A5B9	102.21	8/5/2013	275762.44	3846405.71	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	4		3.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00094	D6A5B9	26.19	8/5/2013	275762.44	3846408.91	Cultural Debris	Scrap	Steel	N/A	N/A	2	8	2		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00095	D6A5B9	22.13	8/5/2013	275762.84	3846421.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00096	D6A5B9	2856.68	8/5/2013	275762.84	3846425.11	Cultural Debris	Scrap	Pipe, alum can	N/A	N/A	17	15	40		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00097	D6A5B9	36.9	8/5/2013	275762.92	3846428.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	9	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00098	D6A5B9	266.73	8/5/2013	275763.04	3846437.71	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	0	0		0				Left in Place	None		7/23/2013	2
D6A5B9-00099	D6A5B9	488.46	8/5/2013	275763.24	3846442.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	0		0				Left in Place	None		7/23/2013	2
D6A5B9-00100	D6A5B9	16.06	8/5/2013	275763.44	3846410.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00101	D6A5B9	64.4	8/5/2013	275763.44	3846431.51	Cultural Debris	Scrap	Pipe, can top	N/A	N/A	3	4	3		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00102	D6A5B9	439.06	8/5/2013	275763.64	3846436.91	Cultural Debris	Scrap	Tent stake	N/A	N/A	1	0	30		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00103	D6A5B9	160.52	8/5/2013	275763.64	3846445.51	Cultural Debris	Scrap	Pipe coupling, steel	N/A	N/A	3	4	6		4.3				Scrap Bin	None	Could not clear	7/23/2013	2
D6A5B9-00104	D6A5B9	1646.81	8/5/2013	275763.84	3846424.31	Cultural Debris	Scrap	Pipe, steel	N/A	N/A	2	12	30		6				Scrap Bin	None		7/23/2013	2
D6A5B9-00105	D6A5B9	102.4	8/5/2013	275763.84	3846434.31	Cultural Debris	Scrap	Drain cover	N/A	N/A	1	6	10		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00106	D6A5B9	25.15	8/5/2013	275764.24	3846419.31	Cultural Debris	Scrap	Nail, banding	N/A	N/A	3	6	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00107	D6A5B9	55.3	8/5/2013	275764.43	3846426.68	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00108	D6A5B9	2198.6	8/5/2013	275764.44	3846412.51	Cultural Debris	Scrap	Metal sheets	N/A	N/A	1	0	10		0				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B9-00109	D6A5B9	483.2	8/5/2013	275764.44	3846443.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	0		1.3				Left in Place	None		7/23/2013	2
D6A5B9-00110	D6A5B9	5.59	8/5/2013	275764.84	3846405.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00111	D6A5B9	35.24	8/5/2013	275764.84	3846422.31	Cultural Debris	Scrap	Pipe, rebar	N/A	N/A	2	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00112	D6A5B9	5.93	8/5/2013	275765.04	3846407.71	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00113	D6A5B9	34.76	8/5/2013	275765.24	3846419.91	Cultural Debris	Scrap	Nail	N/A	N/A	8	4	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00114	D6A5B9	84.03	8/5/2013	275765.24	3846432.11	Cultural Debris	Scrap	Rebar	N/A	N/A	2	6	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00115	D6A5B9	24.27	8/5/2013	275765.24	3846438.71	Cultural Debris	Scrap	Steel, pipe	N/A	N/A	3	7	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00116	D6A5B9	565.62	8/5/2013	275765.24	3846444.51	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	30		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00117	D6A5B9	29.61	8/5/2013	275765.32	3846448.18	Cultural Debris	Scrap	Nail	N/A	N/A	6	12	1		7		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00118	D6A5B9	18.2	8/5/2013	275765.44	3846421.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00119	D6A5B9	67.92	8/5/2013	275765.44	3846428.71	Cultural Debris	Scrap	Can	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00120	D6A5B9	4.77	8/5/2013	275765.64	3846401.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00121	D6A5B9	15.9	8/6/2013	275765.84	3846437.31	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00122	D6A5B9	119.36	8/6/2013	275765.84	3846441.31	Cultural Debris	Scrap	Wire	N/A	N/A	3	8	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00123	D6A5B9	3.76	8/6/2013	275765.97	3846435.23	Cultural Debris	Scrap	Nail	N/A	N/A	1	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00124	D6A5B9	578.58	8/6/2013	275766.2	3846445.93	Cultural Debris	Scrap	Tent stake	N/A	N/A	3	0	40		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00125	D6A5B9	71.65	8/6/2013	275766.24	3846429.51	Cultural Debris	Scrap	Wire, can	N/A	N/A	4	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00126	D6A5B9	11992.94	8/6/2013	275766.44	3846424.11	Cultural Debris	Scrap	Tent stake	N/A	N/A	2	3	40		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00127	D6A5B9	41.9	8/6/2013	275766.64	3846419.91	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00128	D6A5B9	15.39	8/6/2013	275766.64	3846436.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00129	D6A5B9	7.68	8/6/2013	275766.75	3846403.96	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00130	D6A5B9	74.25	8/6/2013	275766.84	3846406.91	Cultural Debris	Scrap	Pipe	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00131	D6A5B9	241.86	8/6/2013	275767.04	3846440.11	Cultural Debris	Scrap	Wire	N/A	N/A	2	0	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00132	D6A5B9	11231.6	8/6/2013	275767.24	3846414.31	Cultural Debris	Scrap	Steel frame	N/A	N/A	1	0	10		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00133	D6A5B9	167.67	8/6/2013	275767.64	3846430.31	Cultural Debris	Scrap	Angle iron	N/A	N/A	1	0	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00134	D6A5B9	89.34	8/6/2013	275767.84	3846422.71	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	10		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00135	D6A5B9	389.59	8/6/2013	275767.84	3846425.71	Cultural Debris	Scrap	Rebar, pipe	N/A	N/A	3	10	7		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00136	D6A5B9	93.82	8/6/2013	275768.04	3846404.31	Cultural Debris	Scrap	Chain	N/A	N/A	1	9	0		91				Left in Place	None		7/23/2013	2
D6A5B9-00137	D6A5B9	275.35	8/6/2013	275768.04	3846409.11	Cultural Debris	Scrap	Banding, rebar	N/A	N/A	1	20	0		695				Left in Place	None		7/23/2013	2
D6A5B9-00138	D6A5B9	65.72	8/6/2013	275768.04	3846432.91	Cultural Debris	Scrap	Rebar, nail	N/A	N/A	4	11	2		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00139	D6A5B9	16.77	8/6/2013	275768.18	3846434.96	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00140	D6A5B9	15.42	8/6/2013	275768.23	3846406.58	Cultural Debris	Scrap	Banding	N/A	N/A	1	9	0		75				Left in Place	None		7/23/2013	2
D6A5B9-00141	D6A5B9	139.64	8/6/2013	275768.24	3846431.71	Cultural Debris	Scrap	Angle iron	N/A	N/A	3	8	3		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00142	D6A5B9	195.37	8/6/2013	275768.24	3846438.51	Cultural Debris	Scrap	Rebar	N/A	N/A	1	4	0		390				Left in Place	None		7/23/2013	2
D6A5B9-00143	D6A5B9	16.84	8/6/2013	275768.27	3846436.83	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00144	D6A5B9	527.16	8/6/2013	275768.84	3846414.31	Cultural Debris	Scrap	Rebar	N/A	N/A	6	8	10		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00145	D6A5B9	55.33	8/6/2013	275768.84	3846418.11	Cultural Debris	Scrap	Banding, nail	N/A	N/A	2	6	2		38		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00146	D6A5B9	598.56	8/6/2013	275769.04	3846411.91	Cultural Debris	Scrap	Can	N/A	N/A	1	5	1		1.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00147	D6A5B9	45.24	8/6/2013	275769.04	3846445.31	Cultural Debris	Scrap	Wire	N/A	N/A	1	0	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00148	D6A5B9	8.19	8/6/2013	275769.04	3846447.71	Cultural Debris	Scrap	Banding	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00149	D6A5B9	15.89	8/6/2013	275769.24	3846441.11	Cultural Debris	Scrap	Bolts, washer	N/A	N/A	2	6	1		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00150	D6A5B9	1223.03	8/6/2013	275769.64	3846415.51	Cultural Debris	Scrap	Bracket	N/A	N/A	20	17	30		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00151	D6A5B9	32.72	8/6/2013	275769.64	3846421.71	Cultural Debris	Scrap	Pipe	N/A	N/A	2	12	2		3.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00152	D6A5B9	3.56	8/6/2013	275769.7	3846400.79	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00153	D6A5B9	1952.88		275769.84	3846403.91																	7/23/2013	2
D6A5B9-00154	D6A5B9	46.67	8/6/2013	275769.84	3846424.51	Cultural Debris	Scrap	Pipe, wire	N/A	N/A	2	7	4		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00155	D6A5B9	68.18	8/6/2013	275769.84	3846428.71	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	15		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00156	D6A5B9	165.1	8/6/2013	275769.84	3846433.51	Cultural Debris	Scrap	Rebar	N/A	N/A	1	5	0		320				Left in Place	None		7/23/2013	2
D6A5B9-00157	D6A5B9	7.31	8/6/2013	275770.24	3846435.51	Cultural Debris	Scrap	Can	N/A	N/A	1	6	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00158	D6A5B9	44.14	8/6/2013	275770.44	3846423.51	Cultural Debris	Scrap	Nail, wire, metal	N/A	N/A	4	5	3		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00159	D6A5B9	63.19	8/6/2013	275770.44	3846443.11	Cultural Debris	Scrap	Rebar	N/A	N/A	1	8	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00160	D6A5B9	29.04	8/6/2013	275770.49	3846445.34	Cultural Debris	Scrap	Stake	N/A	N/A	1	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00161	D6A5B9	5615.78	8/6/2013	275771.24	3846413.51	Cultural Debris	Scrap	Vehicle parts	N/A	N/A	1	0	50		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00162	D6A5B9	41.49	8/6/2013	275771.24	3846419.51	Cultural Debris	Scrap	Asphalt, nail, banding	N/A	N/A	4	12	2		10				Scrap Bin	None		7/23/2013	2
D6A5B9-00163	D6A5B9	182.72	8/6/2013	275771.24	3846425.11	Cultural Debris	Scrap	Power equipment	N/A	N/A	3	12	10		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00164	D6A5B9	45.67		275771.44	3846405.91																	7/23/2013	2
D6A5B9-00165	D6A5B9	8.48	8/6/2013	275771.44	3846447.31	Cultural Debris	Scrap	Reflectors	N/A	N/A	40	12	5		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00166	D6A5B9	36.76	8/6/2013	275771.64	3846439.71	Cultural Debris	Scrap	Can, metal	N/A	N/A	2	16	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00167	D6A5B9	33.33	8/6/2013	275771.84	3846420.31	Cultural Debris	Scrap	Asphalt	N/A	N/A	1	8	2		3.5				Scrap Bin	None		7/23/2013	2
D6A5B9-00168	D6A5B9	39.32	8/6/2013	275771.96	3846407.03	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	12	1		4				Scrap Bin	None		7/23/2013	2
D6A5B9-00169	D6A5B9	4.31	8/6/2013	275771.97	3846435.44	Cultural Debris	Scrap	Nail	N/A	N/A	6	14	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00170	D6A5B9	178.51	8/6/2013	275772.04	3846427.11	Cultural Debris	Scrap	Bolts	N/A	N/A	3	6	4		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00171	D6A5B9	158.96	8/6/2013	275772.04	3846432.71	Cultural Debris	Scrap	Wire, steel	N/A	N/A	6	12	10		10		Y		Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A5B9-00172	D6A5B9	73.29	8/6/2013	275772.44	3846400.51	Cultural Debris	Scrap	Rebar	N/A	N/A	3	9	4		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00173	D6A5B9	10.09	8/6/2013	275772.44	3846403.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00174	D6A5B9	14.32	8/6/2013	275772.53	3846445.79	Cultural Debris	Scrap	Wire	N/A	N/A	3	9	2		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00175	D6A5B9	13.97	8/6/2013	275772.64	3846423.31	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	1		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00176	D6A5B9	80.2	8/6/2013	275772.64	3846430.71	Cultural Debris	Scrap	Wire, banding	N/A	N/A	4	12	3		3.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00177	D6A5B9	9.95	8/6/2013	275772.68	3846443.36	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00178	D6A5B9	195.34		275772.84	3846408.71																	7/23/2013	2
D6A5B9-00179	D6A5B9	374.29	8/6/2013	275773.04	3846416.51	Cultural Debris	Scrap	Wire, rebar	N/A	N/A	4	9	6		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00180	D6A5B9	62.61	8/6/2013	275773.04	3846437.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00181	D6A5B9	18.54	8/6/2013	275773.24	3846439.91	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	4		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00182	D6A5B9	3.23	8/6/2013	275773.32	3846405.44	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00183	D6A5B9	14.4	8/6/2013	275773.45	3846447.74	Cultural Debris	Scrap	Nail	N/A	N/A	3	10	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00184	D6A5B9	32	8/6/2013	275773.64	3846410.71	Cultural Debris	Scrap	Rebar	N/A	N/A	2	15	3		1.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00185	D6A5B9	19.83	8/7/2013	275773.64	3846414.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00186	D6A5B9	3.07	8/7/2013	275773.64	3846449.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00187	D6A5B9	27.75	8/7/2013	275773.77	3846435.76	Cultural Debris	Scrap	Banding	N/A	N/A	6	10	2		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00188	D6A5B9	8.74	8/7/2013	275774.04	3846402.71	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00189	D6A5B9	16.04	8/7/2013	275774.04	3846446.11	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	8	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00190	D6A5B9	13.21	8/7/2013	275774.24	3846419.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	9	1		1.5				Scrap Bin	None		7/23/2013	2

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B9-00191	D6A5B9	36.03	8/7/2013	275774.24	3846422.11	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00192	D6A5B9	487.04	8/7/2013	275774.44	3846433.31	Cultural Debris	Scrap	Nail	N/A	N/A	3	12	8		2.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00193	D6A5B9	15.97	8/7/2013	275774.84	3846447.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00194	D6A5B9	17.84	8/7/2013	275775.04	3846412.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	9	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00195	D6A5B9	261.57	8/7/2013	275775.04	3846442.31	Cultural Debris	Scrap	Sign, nail, alum can	N/A	N/A	4	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00196	D6A5B9	3704.86	8/7/2013	275775.24	3846437.91	Cultural Debris	Scrap	Drain cover, steel	N/A	N/A	1	4	100		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00197	D6A5B9	15.11	8/7/2013	275775.64	3846408.11	Cultural Debris	Scrap	Rebar	N/A	N/A	1	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00198	D6A5B9	1670.36	8/7/2013	275775.64	3846424.91	Cultural Debris	Scrap	Steel	N/A	N/A	3	6	20		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00199	D6A5B9	8.46	8/7/2013	275775.72	3846401.45	Cultural Debris	Scrap	Nail	N/A	N/A	4	12	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00200	D6A5B9	24.64	8/7/2013	275775.84	3846402.91	Cultural Debris	Scrap	Rebar, wire, steel	N/A	N/A	6	15	2		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00201	D6A5B9	26.2	8/7/2013	275775.84	3846448.51	Cultural Debris	Scrap	Wire	N/A	N/A	3	3	1		12.3				Left in Place	None	Wire in tree roots	7/23/2013	2
D6A5B9-00202	D6A5B9	20.59	8/7/2013	275776.24	3846419.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	2	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00203	D6A5B9	8.5	8/7/2013	275776.24	3846445.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00204	D6A5B9	16.18	8/7/2013	275776.44	3846408.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	9	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00205	D6A5B9	55.45	8/7/2013	275776.44	3846414.31	Cultural Debris	Scrap	Rebar	N/A	N/A	3	12	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00206	D6A5B9	33.96	8/7/2013	275776.44	3846421.31	Cultural Debris	Scrap	Nail	N/A	N/A	6	9	2		1.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00207	D6A5B9	152.01	8/7/2013	275776.44	3846432.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	0		151				Left in Place	None		7/23/2013	2
D6A5B9-00208	D6A5B9	3.91	8/7/2013	275776.53	3846406.18	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00209	D6A5B9	16.38	8/7/2013	275776.64	3846435.11	Cultural Debris	Scrap	Tent stake	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00210	D6A5B9	11943.73	8/7/2013	275776.84	3846428.31	Cultural Debris	Scrap	Steel	N/A	N/A	1	3	0		10000				Left in Place	None		7/23/2013	2
D6A5B9-00211	D6A5B9	1573.55	8/7/2013	275777	3846430.38	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	80		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00212	D6A5B9	174.92	8/7/2013	275777.04	3846416.71	Cultural Debris	Scrap	Rebar	N/A	N/A	7	13	6		62		Y		Scrap Bin	None	Could not clear, contruction debris	7/23/2013	2
D6A5B9-00213	D6A5B9	15.66	8/7/2013	275777.17	3846447.77	Cultural Debris	Scrap	Nail	N/A	N/A	3	7	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00214	D6A5B9	15.97	8/7/2013	275777.24	3846400.91	Cultural Debris	Scrap	Rebar	N/A	N/A	1	13	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00215	D6A5B9	30.66	8/7/2013	275777.24	3846403.91	QC	QC Seed	QC Seed	N/A	N/A	1	6	1		0				Consoildation Point	None		7/23/2013	2
D6A5B9-00216	D6A5B9	28.7	8/7/2013	275777.24	3846440.51	Cultural Debris	Scrap	Chain	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00217	D6A5B9	23.62	8/5/2013	275777.44	3846449.11	Cultural Debris	Scrap	Nails, wire banding	N/A	N/A	4	7	1		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00218	D6A5B9	31.92	8/5/2013	275777.64	3846436.71	Cultural Debris	Scrap	Nails, wire	N/A	N/A	6	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00219	D6A5B9	16.62	8/5/2013	275777.84	3846400.31	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00220	D6A5B9	8.12	8/5/2013	275778	3846422.18	Cultural Debris	Scrap	Nail	N/A	N/A	4	9	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00221	D6A5B9	78.83	8/5/2013	275778	3846432.03	Cultural Debris	Scrap	Rebar	N/A	N/A	1	4	0		130				Left in Place	None		7/23/2013	2
D6A5B9-00222	D6A5B9	96.89	8/5/2013	275778.04	3846407.51	Cultural Debris	Scrap	Cable	N/A	N/A	1	0	0		140				Left in Place	None		7/23/2013	2
D6A5B9-00223	D6A5B9	99.09	8/7/2013	275778.04	3846424.51	Cultural Debris	Scrap	Chain	N/A	N/A	4	6	8		2.5				Scrap Bin	None		7/23/2013	2
D6A5B9-00224	D6A5B9	41.72	8/7/2013	275778.04	3846435.91	Cultural Debris	Scrap	Steel	N/A	N/A	3	13	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00225	D6A5B9	10.27	8/7/2013	275778.04	3846442.71	Cultural Debris	Scrap	Pipe	N/A	N/A	1	7	0		2.4				Left in Place	None		7/23/2013	2
D6A5B9-00226	D6A5B9	479.76	8/7/2013	275778.44	3846411.51	Cultural Debris	Scrap	Pipe	N/A	N/A	1	12	0		605				Left in Place	None		7/23/2013	2
D6A5B9-00227	D6A5B9	10960.98	8/7/2013	275778.44	3846428.51	Cultural Debris	Scrap	Steel	N/A	N/A	1	0	1		10000				Left in Place	None		7/23/2013	2
D6A5B9-00228	D6A5B9	12.34	8/7/2013	275778.63	3846403.52	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00229	D6A5B9	10.71	8/7/2013	275778.84	3846446.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00230	D6A5B9	5.09	8/7/2013	275779.44	3846441.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	4	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00231	D6A5B9	75.66	8/7/2013	275779.45	3846417.49	Cultural Debris	Scrap	Rebar	N/A	N/A	4	3	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00232	D6A5B9	20.6	8/7/2013	275779.45	3846423.99	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	6	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00233	D6A5B9	18.12	8/7/2013	275779.64	3846420.31	MPPEH	Small Arms	5.56mm	N/A	N/A	749	15	25		1.4				Consoildation Point	Demil		7/23/2013	2
D6A5B9-00234	D6A5B9	18.22	8/7/2013	275779.64	3846448.51	Cultural Debris	Scrap	Rebar	N/A	N/A	3	7	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00235	D6A5B9	18.34	8/7/2013	275779.67	3846406.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	20	1		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00236	D6A5B9	5.58	8/7/2013	275780.04	3846403.71	Cultural Debris	Scrap	Rebar	N/A	N/A	1	24	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00237	D6A5B9	1190.41	8/7/2013	275780.04	3846415.31	Cultural Debris	Scrap	Rebar	N/A	N/A	3	3	10		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00238	D6A5B9	29.58	8/7/2013	275780.04	3846434.71	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00239	D6A5B9	102.66	8/7/2013	275780.24	3846408.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	12	3		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00240	D6A5B9	14.93	8/7/2013	275780.24	3846422.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	7	2		2.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00241	D6A5B9	7373.28	8/7/2013	275780.44	3846430.71	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	0		2630				Left in Place	None	Could not clear, pipe left in place	7/23/2013	2
D6A5B9-00242	D6A5B9	4.02	8/7/2013	275780.44	3846436.31	Cultural Debris	Scrap	Nail, wire	N/A	N/A	1	6	1		1.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00243	D6A5B9	97.35	8/7/2013	275780.64	3846408.31	Cultural Debris	Scrap	Nail	N/A	N/A	4	7	3		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00244	D6A5B9	23.36	8/7/2013	275780.64	3846442.91	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	2		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00245	D6A5B9	4.23	8/7/2013	275780.84	3846400.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00246	D6A5B9	6.91	8/7/2013	275780.84	3846402.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00247	D6A5B9	6.66	8/7/2013	275780.84	3846445.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00248	D6A5B9	5.12	8/7/2013	275780.87	3846447.62	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00249	D6A5B9	16.54	8/7/2013	275780.96	3846411.72	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00250	D6A5B9	16.06	8/7/2013	275780.99	3846424.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	9	1		2.5				Scrap Bin	None		7/23/2013	2
D6A5B9-00251	D6A5B9	942.44	8/7/2013	275781.04	3846426.51	Facility Resource	Anchor	N/A	N/A	N/A	1	0	0		713				Left in Place	None		7/23/2013	2
D6A5B9-00252	D6A5B9	3.43	8/7/2013	275781.61	3846446.91	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00253	D6A5B9	3.23	8/7/2013	275781.64	3846409.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	2	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00254	D6A5B9	54.32	8/7/2013	275781.64	3846419.51	Cultural Debris	Scrap	Rebar	N/A	N/A	4	12	3		2.7				Scrap Bin	None		7/23/2013	2
D6A5B9-00255	D6A5B9	198.42	8/7/2013	275781.64	3846441.11	Cultural Debris	Scrap	Alum can	N/A	N/A	1	3	1		3.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00256	D6A5B9	7.13	8/7/2013	275781.66	3846406.29	Cultural Debris	Scrap	Rebar	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00257	D6A5B9	3.1	8/7/2013	275781.76	3846448.57	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00258	D6A5B9	12531.33	8/7/2013	275782.04	3846415.51	Facility Resource	Manhole	N/A	N/A	N/A	1	0	0		11000				Left in Place	None		7/23/2013	2
D6A5B9-00259	D6A5B9	16.43	8/7/2013	275782.36	3846404.48	Cultural Debris	Scrap	Steel	N/A	N/A	1	8	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00260	D6A5B9	5.11	8/7/2013	275782.44	3846443.36	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		1.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00261	D6A5B9	239.7	8/7/2013	275782.44	3846439.51	Cultural Debris	Scrap	Rebar	N/A	N/A	2	6	2		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00262	D6A5B9	30.89	8/7/2013	275782.64	3846418.61	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	3	7	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00263	D6A5B9	10.08	8/7/2013	275782.84	3846432.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	7	1		2.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00264	D6A5B9	55.76	8/7/2013	275783.12	3846441.44	Cultural Debris	Scrap	Nail	N/A	N/A	3	3	2		1.7				Scrap Bin	None		7/23/2013	2
D6A5B9-00265	D6A5B9	8.94	8/7/2013	275783.24	3846409.51	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00266	D6A5B9	4.47	8/7/2013	275783.24	3846427.91	Cultural Debris	Scrap	Nail	N/A	N/A	2	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00267	D6A5B9	16.34	8/7/2013	275783.3	3846426.12	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		1.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00268	D6A5B9	27.44	8/7/2013	275783.32	3846405.22	Cultural Debris	Scrap	Rebar	N/A	N/A	1	9	2		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00269	D6A5B9	201.39	8/7/2013	275783.44	3846434.51	Cultural Debris	Scrap	Steel	N/A	N/A	2	6	8		3.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00270	D6A5B9	30.45	8/7/2013	275783.59	3846419.58	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	7	3		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00271	D6A5B9	10.49	8/7/2013	275783.84	3846448.11	Cultural Debris	Scrap	Nail	N/A	N/A	3	14	1		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00272	D6A5B9	36.11	8/7/2013	275784.01	3846441.97	Cultural Debris	Scrap	Nail	N/A	N/A	2	6	1		1				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B9-00273	D6A5B9	17.64	8/7/2013	275784.04	3846431.71	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00274	D6A5B9	10.56	8/7/2013	275784.13	3846402.52	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00275	D6A5B9	31.36	8/7/2013	275784.24	3846423.51	Cultural Debris	Scrap	Rebar	N/A	N/A	2	12	2		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00276	D6A5B9	44.44	8/7/2013	275784.24	3846424.71	Cultural Debris	Scrap	Pipe	N/A	N/A	1	9	3		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00277	D6A5B9	7.01	8/7/2013	275784.64	3846408.31	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00278	D6A5B9	9.75	8/7/2013	275784.64	3846427.51	Cultural Debris	Scrap	Rebar	N/A	N/A	2	7	1		1.7				Scrap Bin	None		7/23/2013	2
D6A5B9-00279	D6A5B9	138.73	8/7/2013	275784.64	3846433.11	Cultural Debris	Scrap	Steel	N/A	N/A	4	12	4		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00280	D6A5B9	8.69	8/7/2013	275784.8	3846403.52	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00281	D6A5B9	12.86	8/7/2013	275784.84	3846446.51	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	3	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00282	D6A5B9	63.68		275785.24	3846415.51																	7/23/2013	2
D6A5B9-00283	D6A5B9	3.32	8/7/2013	275785.42	3846448.18	Cultural Debris	Scrap	Nail	N/A	N/A	4	9	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00284	D6A5B9	309.02	8/7/2013	275785.44	3846431.11	Cultural Debris	Scrap	Steel	N/A	N/A	2	7	8		1.7				Scrap Bin	None		7/23/2013	2
D6A5B9-00285	D6A5B9	4.14	8/7/2013	275785.44	3846441.71	Cultural Debris	Scrap	Nail	N/A	N/A	4	6	1		1.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00286	D6A5B9	4.49	8/7/2013	275785.57	3846436.23	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00287	D6A5B9	82.36	8/7/2013	275785.64	3846419.91	Cultural Debris	Scrap	Steel	N/A	N/A	4	9	10		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00288	D6A5B9	21.79	8/7/2013	275785.64	3846428.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	5	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00289	D6A5B9	3.19	8/7/2013	275785.84	3846404.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00290	D6A5B9	252.46		275786.24	3846413.91																	7/23/2013	2
D6A5B9-00291	D6A5B9	30.72	8/7/2013	275786.24	3846445.31	Cultural Debris	Scrap	Wire	N/A	N/A	1	12	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00292	D6A5B9	16.31	8/7/2013	275786.24	3846449.91	Cultural Debris	Scrap	Bolt	N/A	N/A	2	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00293	D6A5B9	12.76	8/7/2013	275786.25	3846426.15	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00294	D6A5B9	23.02	8/7/2013	275786.84	3846401.11	Cultural Debris	Scrap	Wire, rebar	N/A	N/A	2	9	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00295	D6A5B9	3.34	8/7/2013	275786.84	3846408.11	Cultural Debris	Scrap	Nail	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00296	D6A5B9	193.49	8/7/2013	275786.84	3846431.11	Cultural Debris	Scrap	Rebar	N/A	N/A	3	10	4		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00297	D6A5B9	113.18	8/7/2013	275786.84	3846437.11	Cultural Debris	Scrap	Rebar, alum can	N/A	N/A	4	9	3		1.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00298	D6A5B9	22.94	8/7/2013	275786.84	3846446.11	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	1		1.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00299	D6A5B9	31.02	8/7/2013	275786.99	3846420.41	Cultural Debris	Scrap	Rebar	N/A	N/A	3	7	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00300	D6A5B9	166.06	8/7/2013	275787.04	3846426.91	Cultural Debris	Scrap	Wire	N/A	N/A	3	9	3		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00301	D6A5B9	3.8	8/7/2013	275787.24	3846440.11	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00302	D6A5B9	130.28	8/7/2013	275787.64	3846418.31	Cultural Debris	Scrap	Rebar	N/A	N/A	4	12	7		2.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00303	D6A5B9	9.34	8/7/2013	275787.73	3846448.48	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00304	D6A5B9	67.8	8/7/2013	275788.04	3846423.51	Facility Resource	Grounding Rod	N/A	N/A	N/A	0	0	0		913				Left in Place	None		7/23/2013	2
D6A5B9-00305	D6A5B9	4.22	8/7/2013	275788.47	3846420.26	Cultural Debris	Scrap	Nail	N/A	N/A	2	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00306	D6A5B9	5	8/7/2013	275788.59	3846432.41	Cultural Debris	Scrap	Nail	N/A	N/A	2	7	1		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00307	D6A5B9	1106.3	8/7/2013	275788.64	3846404.31	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	0		1440				Left in Place	None		7/23/2013	2
D6A5B9-00308	D6A5B9	3.44	8/7/2013	275788.84	3846414.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00309	D6A5B9	6.23	8/7/2013	275789.04	3846440.91	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	4	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00310	D6A5B9	119.69	8/7/2013	275789.18	3846439.31	Cultural Debris	Scrap	Rebar	N/A	N/A	3	7	3		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00311	D6A5B9	3.41	8/7/2013	275789.24	3846421.98	Cultural Debris	Scrap	Nail	N/A	N/A	4	10	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00312	D6A5B9	4.15	8/7/2013	275789.24	3846433.51	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	6	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00313	D6A5B9	4.11	8/8/2013	275789.33	3846448.57	Cultural Debris	Scrap	Nail	N/A	N/A	4	12	1		2.3				Scrap Bin	None		7/23/2013	2
D6A5B9-00314	D6A5B9	4.13	8/8/2013	275789.44	3846443.91	Cultural Debris	Scrap	Nail	N/A	N/A	1	8	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00315	D6A5B9	3.25	8/8/2013	275789.45	3846435.41	Cultural Debris	Scrap	Nail	N/A	N/A	1	9	1		1				Scrap Bin	None		7/23/2013	2
D6A5B9-00316	D6A5B9	242.15	8/8/2013	275789.98	3846437.95	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	0		380				Left in Place	None		7/23/2013	2
D6A5B9-00317	D6A5B9	3.64	8/8/2013	275790.01	3846445.64	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00318	D6A5B9	47.46	8/8/2013	275790.04	3846406.8	Cultural Debris	Scrap	Rebar	N/A	N/A	6	12	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00319	D6A5B9	1611.32		275790.04	3846404.51																	7/23/2013	2
D6A5B9-00320	D6A5B9	66.59	8/8/2013	275790.04	3846407.73	Cultural Debris	Scrap	Rebar	N/A	N/A	4	9	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00321	D6A5B9	160.23	8/8/2013	275790.04	3846417.91	Cultural Debris	Scrap	Rebar	N/A	N/A	3	9	6		2				Scrap Bin	None		7/23/2013	2
D6A5B9-00322	D6A5B9	416.65	8/8/2013	275790.24	3846430.91	Cultural Debris	Scrap	Steel	N/A	N/A	1	3	6		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00323	D6A5B9	3.09	8/8/2013	275790.64	3846415.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00324	D6A5B9	17.43	8/8/2013	275790.69	3846425.32	Cultural Debris	Scrap	Rebar	N/A	N/A	1	12	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00325	D6A5B9	348.94	8/8/2013	275791.24	3846431.51	Cultural Debris	Scrap	Steel	N/A	N/A	1	0	6		3				Scrap Bin	None		7/23/2013	2
D6A5B9-00326	D6A5B9	11.86	8/8/2013	275791.44	3846419.51	Cultural Debris	Scrap	Nail	N/A	N/A	3	6	1		1.9				Scrap Bin	None		7/23/2013	2
D6A5B9-00327	D6A5B9	3910.35	8/8/2013	275791.44	3846438.71	Cultural Debris	Scrap	Pipe, rust, banding	N/A	N/A	1	0	30		45				Scrap Bin	None		7/23/2013	2
D6A5B9-00328	D6A5B9	5.58	8/8/2013	275791.52	3846448.95	Cultural Debris	Scrap	Wire, rebar	N/A	N/A	1	8	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00329	D6A5B9	231.94	8/8/2013	275791.64	3846423.51	Cultural Debris	Scrap	Steel	N/A	N/A	1	6	10		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00330	D6A5B9	18.47	8/8/2013	275791.64	3846443.71	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00331	D6A5B9	9.66	8/8/2013	275792.23	3846415.15	Cultural Debris	Scrap	Wire	N/A	N/A	1	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00332	D6A5B9	25.89	8/8/2013	275792.24	3846406.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	3		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00333	D6A5B9	6.27	8/8/2013	275792.24	3846411.91	Cultural Debris	Scrap	Wire	N/A	N/A	1	4	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00334	D6A5B9	7.04	8/8/2013	275792.24	3846412.71	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00335	D6A5B9	81.12	8/8/2013	275792.84	3846425.51	Cultural Debris	Scrap	Steel	N/A	N/A	6	12	5		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00336	D6A5B9	54.46	8/8/2013	275792.97	3846422.87	Cultural Debris	Scrap	Rebar	N/A	N/A	2	8	3		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00337	D6A5B9	24.38	8/8/2013	275793	3846447.89	Cultural Debris	Scrap	Nail, wire	N/A	N/A	3	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00338	D6A5B9	49.7	8/8/2013	275793.04	3846417.31	Cultural Debris	Scrap	Rebar	N/A	N/A	3	8	2		2.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00339	D6A5B9	3.34	8/8/2013	275793.44	3846409.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00340	D6A5B9	13.27	8/8/2013	275793.64	3846406.51	Cultural Debris	Scrap	Wire	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00341	D6A5B9	706.49	8/8/2013	275793.64	3846438.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	10		6				Scrap Bin	None		7/23/2013	2
D6A5B9-00342	D6A5B9	14.02	8/8/2013	275793.73	3846402.52	Cultural Debris	Scrap	Wire	N/A	N/A	1	7	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00343	D6A5B9	135		275793.84	3846414.71																	7/23/2013	2
D6A5B9-00344	D6A5B9	389.91	8/8/2013	275794.44	3846428.71	Cultural Debris	Scrap	Wire, rebar	N/A	N/A	6	8	6		2.8				Scrap Bin	None		7/23/2013	2
D6A5B9-00345	D6A5B9	958.79	8/6/2013	275794.44	3846439.31	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	6		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00346	D6A5B9	593.07	8/6/2013	275794.44	3846442.11	Cultural Debris	Scrap	Pipe	N/A	N/A	1	6	8		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00347	D6A5B9	52.86	8/6/2013	275794.44	3846445.71	Cultural Debris	Scrap	Rebar	N/A	N/A	3	8	5		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00348	D6A5B9	41.33		275794.56	3846417.75																	7/23/2013	2
D6A5B9-00349	D6A5B9	393.28	8/6/2013	275794.64	3846419.91	MEC	Projectile	Projectile, 40mm, HEDP, M430	HE	Fuzed	1	4	2		0				EOD Remvoal	Demo		7/23/2013	2
D6A5B9-00350	D6A5B9	543.71	8/6/2013	275794.64	3846425.71	Cultural Debris	Scrap	Metal Bracket	N/A	N/A	1	12	30		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00351	D6A5B9	44.25	8/6/2013	275794.64	3846435.91	Cultural Debris	Scrap	Nail	N/A	N/A	30	15	3		2.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00352	D6A5B9	423.77	8/6/2013	275795.04	3846440.71	Cultural Debris	Scrap	Pipe	N/A	N/A	1	0	6		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00353	D6A5B9	3.28	8/6/2013	275795.24	3846406.8	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00354	D6A5B9	30.6	8/6/2013	275795.24	3846403.11	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	1		0				Scrap Bin	None		7/23/2013	2

Appendix D

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A5B9-00355	D6A5B9	47.1	8/6/2013	275795.84	3846430.11	Cultural Debris	Scrap	Wire	N/A	N/A	2	6	2		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00356	D6A5B9	3343.11		275795.89	3846413.43																	7/23/2013	2
D6A5B9-00357	D6A5B9	33.32	8/6/2013	275795.98	3846445.49	Cultural Debris	Scrap	Tent Stake	N/A	N/A	3	6	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00358	D6A5B9	3311.51		275796.04	3846400.11																	7/23/2013	2
D6A5B9-00359	D6A5B9	583.35	8/6/2013	275796.04	3846409.11	Cultural Debris	Scrap	Fence post	N/A	N/A	1	9	10		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00360	D6A5B9	35.71	8/6/2013	275796.24	3846437.91	Cultural Debris	Scrap	Bolt	N/A	N/A	2	7	1		3.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00361	D6A5B9	11.74	8/6/2013	275796.37	3846435.61	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	8	1		2.5				Scrap Bin	None		7/23/2013	2
D6A5B9-00362	D6A5B9	18.47	8/6/2013	275796.44	3846438.91	Cultural Debris	Scrap	Nail, bolt	N/A	N/A	2	6	1		1.4				Scrap Bin	None		7/23/2013	2
D6A5B9-00363	D6A5B9	4.13	8/6/2013	275796.44	3846442.71	Cultural Debris	Scrap	Nail	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00364	D6A5B9	17.46	8/6/2013	275796.75	3846420.92	Cultural Debris	Scrap	Rebar	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00365	D6A5B9	4034.89		275796.78	3846412.49																	7/23/2013	2
D6A5B9-00366	D6A5B9	5.27	8/7/2013	275796.84	3846432.03	Cultural Debris	Scrap	Nail	N/A	N/A	1	2	1		1.2				Scrap Bin	None		7/23/2013	2
D6A5B9-00367	D6A5B9	219.52	8/7/2013	275796.84	3846404.91	Cultural Debris	Scrap	Pipe, rebar	N/A	N/A	2	9	6		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00368	D6A5B9	63.67	8/7/2013	275796.84	3846423.71	Cultural Debris	Scrap	Steel	N/A	N/A	2	6	4		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00369	D6A5B9	59.02	8/7/2013	275797.44	3846417.11	MEC	Projectile	Projectile, 40mm, HEDP, M430	HE	Fuzed	1	7	2		1				EOD Remvoal	Demo		7/23/2013	2
D6A5B9-00370	D6A5B9	9.39	8/7/2013	275797.84	3846414.71	Cultural Debris	Scrap	Wire	N/A	N/A	2	2	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00371	D6A5B9	68.03	8/7/2013	275798.24	3846426.31	Cultural Debris	Scrap	Metal sheet	N/A	N/A	1	3	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00372	D6A5B9	28.3	8/7/2013	275798.44	3846410.91	Cultural Debris	Scrap	Vehicle Parts	N/A	N/A	2	12	2		2.1				Scrap Bin	None		7/23/2013	2
D6A5B9-00373	D6A5B9	26.71	8/7/2013	275798.64	3846418.11	Cultural Debris	Scrap	Steel, asphault	N/A	N/A	3	5	1		0				Scrap Bin	None		7/23/2013	2
D6A5B9-00374	D6A5B9	10.23	8/7/2013	275798.91	3846424.49	Cultural Debris	Scrap	Nail	N/A	N/A	4	4	1		2.6				Scrap Bin	None		7/23/2013	2
D6A5B9-00375	D6A5B9	7.94	8/7/2013	275799.04	3846413.91	Cultural Debris	Scrap	Nail, wire, rust	N/A	N/A	1	3	1		0				Scrap Bin	None		7/23/2013	2
D6A5C8-00002	D6A5C8	3.53		275800.11	3846387.62																	7/23/2013	2
D6A5C8-00005	D6A5C8	29.12		275800.44	3846391.91																	7/23/2013	2
D6A5C8-00012	D6A5C8	59		275801.02	3846394.35																	7/23/2013	2
D6A5C8-00014	D6A5C8	431.31		275801.07	3846396.77																	7/23/2013	2
D6A5C8-00020	D6A5C8	35.85		275801.64	3846386.31																	7/23/2013	2
D6A5C8-00025	D6A5C8	15.7		275802.48	3846389.87																	7/23/2013	2
D6A5C8-00027	D6A5C8	196.62		275802.64	3846392.51																	7/23/2013	2
D6A5C8-00030	D6A5C8	77.57		275803.24	3846397.51																	7/23/2013	2
D6A5C8-00031	D6A5C8	14.5		275803.26	3846390.73																	7/23/2013	2
D6A5C8-00032	D6A5C8	655.31		275803.44	3846394.71																	7/23/2013	2
D6A5C8-00036	D6A5C8	4.68		275803.84	3846389.11																	7/23/2013	2
D6A5C8-00042	D6A5C8	389.69		275804.84	3846385.91																	7/23/2013	2
D6A5C9-00001	D6A5C9	19.26		275800.44	3846417.31																	7/23/2013	2
D6A5C9-00002	D6A5C9	33.07		275801.04	3846404.71																	7/23/2013	2
D6A5C9-00003	D6A5C9	817.35		275801.04	3846407.91																	7/23/2013	2
D6A5C9-00004	D6A5C9	9.59		275802.44	3846401.11																	7/23/2013	2
D6A5C9-00005	D6A5C9	5.5		275802.44	3846405.91																	7/23/2013	2
D6A6B1-00001	D6A6B1	1014.55	7/24/2013	275752.44	3846501.91	Cultural Debris	Scrap	Steel frame	N/A	N/A	6	4	5		-5				Scrap Bin	None		7/23/2013	3
D6A6B1-00002	D6A6B1	173.78	7/24/2013	275754.04	3846505.11	Cultural Debris	Survey Stake	N/A	N/A	N/A	0	0	0		175				Left in Place	None		7/23/2013	3
D6A6B1-00003	D6A6B1	90.56	7/24/2013	275754.44	3846500.91	Cultural Debris	Scrap	Steel	N/A	N/A	3	4	2		-12				Scrap Bin	None		7/23/2013	3
D6A6B1-00004	D6A6B1	5.08	7/24/2013	275755.84	3846504.91	Cultural Debris	Scrap	Wire	N/A	N/A	2	6	0.1		-5				Scrap Bin	None		7/23/2013	3
D6A6B1-00005	D6A6B1	9.14	7/24/2013	275756.19	3846502.48	Cultural Debris	Scrap	Nail	N/A	N/A	6	4	0.1		-7				Scrap Bin	None		7/23/2013	3
D6A6B1-00006	D6A6B1	86.16	7/24/2013	275756.24	3846500.11	Cultural Debris	Scrap	Nail, screw	N/A	N/A	16	6	3		-7				Scrap Bin	None		7/23/2013	3
D6A6B1-00007	D6A6B1	28.53	7/25/2013	275756.64	3846506.91	Facility Resource	Fence	N/A	N/A	N/A	0	0	0		32				Left in Place	None		7/23/2013	3
D6A6B1-00008	D6A6B1	54.52	7/25/2013	275757.8	3846502.29	Cultural Debris	Scrap	Nails	N/A	N/A	20	6	1		7				Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A6B1-00009	D6A6B1	11.47	7/24/2013	275758.44	3846504.51	Cultural Debris	Scrap	Nails	N/A	N/A	6	4	0.5		1.8				Scrap Bin	None		7/23/2013	3
D6A6B1-00010	D6A6B1	4.93	7/24/2013	275758.44	3846506.71	Cultural Debris	Scrap	Nails	N/A	N/A	4	12	0.4		-9				Scrap Bin	None		7/23/2013	3
D6A6B1-00011	D6A6B1	203.8	7/25/2013	275758.64	3846500.71	Cultural Debris	Scrap	Nails	N/A	N/A	125	8	6		11				Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A6B1-00012	D6A6B1	90.13	7/25/2013	275759.65	3846502.27	Cultural Debris	Scrap	Nails, bolts	N/A	N/A	50	8	4		9				Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A6B1-00013	D6A6B1	28.08	7/25/2013	275760.84	3846504.11	Cultural Debris	Scrap	Nails, bolts	N/A	N/A	15	8	1		14				Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A6B1-00014	D6A6B1	59.8	7/25/2013	275762.04	3846500.91	Cultural Debris	Scrap	Nails	N/A	N/A	10	8	1		14				Scrap Bin	None	Could not clear, nail pit	7/23/2013	3
D6A6B1-00015	D6A6B1	24.73	7/25/2013	275763.02	3846505.07	Cultural Debris	Scrap	Nails	N/A	N/A	4	5	0.1		1.5				Scrap Bin	None		7/23/2013	3
D6A6B1-00016	D6A6B1	84.99	7/24/2013	275763.04	3846507.31	Cultural Debris	Scrap	Rebar	N/A	N/A	1	2	2		-5				Scrap Bin	None		7/23/2013	3
D6A6B1-00017	D6A6B1	52.59	7/24/2013	275764.04	3846502.31	Cultural Debris	Scrap	Bolt, rust pieces	N/A	N/A	1	2	1		19				Scrap Bin	None	Could not clear	7/23/2013	3
D6A6B1-00018	D6A6B1	37.26	7/24/2013	275764.04	3846506.31	Cultural Debris	Scrap	Rebar, nails	N/A	N/A	4	6	0.5		2				Scrap Bin	None		7/23/2013	3
D6A6B1-00019	D6A6B1	94.41	7/25/2013	275764.44	3846503.71	Cultural Debris	Scrap	Steel, pipe	N/A	N/A	3	7	2		22				Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A6B1-00020	D6A6B1	24.03	7/25/2013	275765.44	3846508.11	Cultural Debris	Scrap	Pipe	N/A	N/A	3	7	0.5		-3				Scrap Bin	None		7/23/2013	3
D6A6B1-00021	D6A6B1	33.24	7/25/2013	275766.04	3846505.31	Cultural Debris	Scrap	Wire, nail, contruction debris	N/A	N/A	2	3	0.5		8				Scrap Bin	None	Could not clear, construction debris	7/23/2013	3
D6A6B1-00022	D6A6B1	30.94	7/25/2013	275766.64	3846507.31	Cultural Debris	Scrap	Bolts	N/A	N/A	5	6	0.5		8				Scrap Bin	None	Could not clear	7/23/2013	3
D6A6B1-00023	D6A6B1	14.9	7/25/2013	275766.75	3846508.55	Cultural Debris	Scrap	Nails	N/A	N/A	3	3	0.1		-3				Scrap Bin	None		7/23/2013	3
D6A6B1-00024	D6A6B1	40.87	7/25/2013	275767.36	3846506.3	Cultural Debris	Scrap	Rebar	N/A	N/A	1	5	0.4		1.6				Scrap Bin	None		7/23/2013	3
D6A6B1-00025	D6A6B1	81.09	7/25/2013	275767.84	3846501.71	Cultural Debris	Scrap	Botls, pipe	N/A	N/A	3	17	7		2				Scrap Bin	None		7/23/2013	2
D6A6B1-00026	D6A6B1	7.54	7/25/2013	275768.24	3846509.11	Cultural Debris	Scrap	Nails, banding	N/A	N/A	4	4	0.3		1				Scrap Bin	None		7/23/2013	2
D6A6B1-00027	D6A6B1	191.37	7/25/2013	275768.35	3846503.93	Cultural Debris	Scrap	Grounding Rod	N/A	N/A	1	0	0		800				Left in Place	None	Could not clear	7/23/2013	2
D6A6B1-00028	D6A6B1	8.77	7/25/2013	275769.04	3846510.91	Cultural Debris	Scrap	Banding	N/A	N/A	2	6	0.1		1				Scrap Bin	None		7/23/2013	2
D6A6B1-00029	D6A6B1	301.03	7/25/2013	275769.11	3846505.11	Cultural Debris	Scrap	Cable anchor	N/A	N/A	1	6	0		330				Left in Place	None	Could not clear	7/23/2013	2
D6A6B1-00030	D6A6B1	128.19	7/25/2013	275769.68	3846501.23	Cultural Debris	Scrap	Bolts	N/A	N/A	4	14	6		30				Scrap Bin	None	Could not clear	7/23/2013	2
D6A6B1-00031	D6A6B1	59.67	7/25/2013	275770.44	3846508.11	Cultural Debris	Scrap	Leaf Spring	N/A	N/A	1	20	3		2.5				Scrap Bin	None		7/23/2013	2
D6A6B1-00032	D6A6B1	32.68	7/25/2013	275770.44	3846513.51	Cultural Debris	Scrap	Bolt	N/A	N/A	1	4	1		2.5				Scrap Bin	None		7/23/2013	2
D6A6B1-00033	D6A6B1	3.55	7/25/2013	275771.44	3846510.31	Cultural Debris	Scrap	Nail, banding	N/A	N/A	3	6	0.1		0.4				Scrap Bin	None		7/23/2013	2
D6A6B1-00034	D6A6B1	2638.11	7/25/2013	275771.84	3846503.71	Cultural Debris	Scrap	Rebar	N/A	N/A	11	0	10		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00035	D6A6B1	139.54	7/25/2013	275772.03	3846506.96	Cultural Debris	Scrap	Rebar, construction material	N/A	N/A	2	6	10		6				Scrap Bin	None	Could not clear, construction material	7/23/2013	2
D6A6B1-00036	D6A6B1	178.15	7/25/2013	275773.33	3846506.11	Cultural Debris	Scrap	Rebar, construction material	N/A	N/A	2	6	22		8				Scrap Bin	None	Could not clear, construction material	7/23/2013	2
D6A6B1-00038	D6A6B1	48.88	7/25/2013	275773.84	3846508.13	Cultural Debris	Scrap	Nail, banding	N/A	N/A	5	6	2		2.6				Scrap Bin	None		7/23/2013	2
D6A6B1-00039	D6A6B1	51.56	7/25/2013	275773.84	3846502.91	Cultural Debris	Scrap	Nail	N/A	N/A	5	18	1.8		21	Y			Scrap Bin	None	Could not clear, nail pit	7/23/2013	2
D6A6B1-00040	D6A6B1	27.96	7/25/2013	275774.84	3846510.71	Cultural Debris	Scrap	Allum can	N/A	N/A	1	10	0.1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00042	D6A6B1	41.23	7/25/2013	275775.64	3846501.51	Cultural Debris	Scrap	Trash/Contruction debris	N/A	N/A	1	0	0.1		9	Y			Scrap Bin	None		7/23/2013	2
D6A6B1-00043	D6A6B1	211.33	7/25/2013	275775.64	3846506.71	Cultural Debris	Scrap	Chain, banding, nail	N/A	N/A	11	5	7		4.1				Scrap Bin	None	Could not clear, construction material	7/23/2013	2
D6A6B1-00044	D6A6B1	3.65	7/25/2013	275775.65	3846512.15	Cultural Debris	Scrap	Banding	N/A	N/A	2	6	0.1		2.5				Scrap Bin	None		7/23/2013	2
D6A6B1-00045	D6A6B1	12.8	7/25/2013	275775.75	3846509.72	Cultural Debris	Scrap	Nail	N/A	N/A	3	5	0.1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00046	D6A6B1	68.44	7/25/2013	275775.84	3846508.51	Cultural Debris	Scrap	Stake, rust flakes	N/A	N/A	1	12	1		6.2				Scrap Bin	None		7/23/2013	2

MEC Instrusive Data

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Anomaly ID	Area Grid	Amplitude	Date	Easting	Northing	Group	Class	Category	Type	Description	Quantity	Depth	Weight	DstFrmFl	QC	Orientn	Pit	Frag	Action	DemoReq	Item Cmnt	Dig Date	DigStatus
D6A6B1-00047	D6A6B1	8.82	7/25/2013	275776.46	3846510.9	Cultural Debris	Scrap	Nail, rust flakes	N/A	N/A	7	8	0.2		5				Scrap Bin	None		7/23/2013	2
D6A6B1-00048	D6A6B1	35.13	7/25/2013	275776.64	3846503.91	Cultural Debris	Scrap	Spike	N/A	N/A	4	9	0.3		2.2				Scrap Bin	None		7/23/2013	2
D6A6B1-00049	D6A6B1	10.55	7/25/2013	275777.22	3846506.13	Cultural Debris	Scrap	Wire	N/A	N/A	1	6	0.1		3.8				Scrap Bin	None	Could not clear	7/23/2013	2
D6A6B1-00051	D6A6B1	28.95	7/25/2013	275777.84	3846502.51	Cultural Debris	Scrap	Wire, nail	N/A	N/A	3	6	0.2		1.4				Scrap Bin	None		7/23/2013	2
D6A6B1-00052	D6A6B1	36.06	7/25/2013	275778.44	3846511.71	Cultural Debris	Scrap	Nail	N/A	N/A	5	18	1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00054	D6A6B1	82.89	7/25/2013	275779.04	3846504.71	Cultural Debris	Scrap	Steel	N/A	N/A	4	9	2		2.8				Scrap Bin	None		7/23/2013	2
D6A6B1-00055	D6A6B1	196.84	7/25/2013	275779.44	3846506.91	Cultural Debris	Scrap	Bracket, banding	N/A	N/A	2	2	3		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00056	D6A6B1	6.97	7/25/2013	275779.44	3846513.31	Cultural Debris	Scrap	Nail	N/A	N/A	6	4	0.2		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00057	D6A6B1	69.76	7/25/2013	275779.64	3846509.71	Cultural Debris	Scrap	Nail, wire	N/A	N/A	8	7	0.1		1.2				Scrap Bin	None		7/23/2013	2
D6A6B1-00059	D6A6B1	37.79	7/25/2013	275780.19	3846503.43	Cultural Debris	Scrap	Bolt, nut	N/A	N/A	1	4	2		1.3				Scrap Bin	None		7/23/2013	2
D6A6B1-00060	D6A6B1	59.43	7/25/2013	275780.21	3846508.13	Cultural Debris	Scrap	Wire	N/A	N/A	1	0	0.3		13				Scrap Bin	None		7/23/2013	2
D6A6B1-00062	D6A6B1	70.07	7/25/2013	275780.84	3846509.71	Cultural Debris	Scrap	Steel	N/A	N/A	4	14	4		2.4				Scrap Bin	None		7/23/2013	2
D6A6B1-00063	D6A6B1	4.21	7/25/2013	275780.97	3846501.39	Cultural Debris	Scrap	Nail, wire	N/A	N/A	4	12	0.1		1.5				Scrap Bin	None		7/23/2013	2
D6A6B1-00066	D6A6B1	9.53	7/25/2013	275781.66	3846504.76	Cultural Debris	Scrap	Nail, banding	N/A	N/A	3	2	0.1		2				Scrap Bin	None		7/23/2013	2
D6A6B1-00067	D6A6B1	7.84	7/25/2013	275781.73	3846513.47	Cultural Debris	Scrap	Nail	N/A	N/A	6	12	1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00070	D6A6B1	55.69	7/25/2013	275782.49	3846510.8	Cultural Debris	Scrap	Wire, pipe, steel	N/A	N/A	5	4	1		1.3				Scrap Bin	None		7/23/2013	2
D6A6B1-00072	D6A6B1	9.36	7/25/2013	275782.56	3846502.39	Cultural Debris	Scrap	Nail, steel	N/A	N/A	1	4	0.1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00073	D6A6B1	308.5	7/25/2013	275782.64	3846508.91	Cultural Debris	Scrap	Steel plate	N/A	N/A	4	18	50		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00074	D6A6B1	70.99	7/25/2013	275782.64	3846511.91	Cultural Debris	Scrap	Tent stake, banding	N/A	N/A	10	9	2		1.4				Scrap Bin	None		7/23/2013	2
D6A6B1-00077	D6A6B1	22.7	7/25/2013	275783.25	3846505.47	Cultural Debris	Scrap	Drill, nail	N/A	N/A	3	9	0.5		1.3				Scrap Bin	None		7/23/2013	2
D6A6B1-00078	D6A6B1	192.46	7/25/2013	275783.27	3846507.3	Cultural Debris	Scrap	Steel plate, rebar	N/A	N/A	2	14	30		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00079	D6A6B1	11.59	7/25/2013	275783.36	3846501.15	Cultural Debris	Scrap	Nail, wire	N/A	N/A	2	3	1		1.3				Scrap Bin	None		7/23/2013	2
D6A6B1-00081	D6A6B1	8.14	7/25/2013	275783.84	3846502.51	Cultural Debris	Scrap	Nail	N/A	N/A	1	4	0.1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00085	D6A6B1	29.41	7/25/2013	275784.64	3846511.31	Cultural Debris	Scrap	Steel, wire	N/A	N/A	10	15	8		3.6				Scrap Bin	None	Could not clear	7/23/2013	2
D6A6B1-00087	D6A6B1	4.42	7/25/2013	275784.84	3846513.99	Cultural Debris	Scrap	Banding	N/A	N/A	7	6	1		0				Scrap Bin	None		7/23/2013	2
D6A6B1-00089	D6A6B1	848.53	7/25/2013	275785.24	3846505.71	Cultural Debris	Scrap	Pipe, steel	N/A	N/A	2	12	22		2.2				Scrap Bin	None		7/23/2013	2
D6A6B1-00090	D6A6B1	41.75	7/25/2013	275785.44	3846501.31	Cultural Debris	Scrap	Nail, rebar	N/A	N/A	2	9	2		3				Scrap Bin	None		7/23/2013	2
D6A6B1-00091	D6A6B1	38.66	7/25/2013	275785.64	3846508.71	Cultural Debris	Scrap	Steel	N/A	N/A	1	0	1		3.5				Scrap Bin	None		7/23/2013	2
D6A6B1-00094	D6A6B1	33.18	7/25/2013	275786.04	3846502.91	Cultural Debris	Scrap	Fence post	N/A	N/A	2	15	5		2.8				Scrap Bin	None		7/23/2013	2
D6A6B1-00095	D6A6B1	70.45	7/25/2013	275786.24	3846510.31	Cultural Debris	Scrap	Wire, pipe, trash pit	N/A	N/A	2	9	5		7.2		Y		Scrap Bin	None	Could not clear, trash pit	7/23/2013	2
D6A6B1-00097	D6A6B1	9.03	7/25/2013	275787.44	3846512.71	Cultural Debris	Scrap	Nail	N/A	N/A	3	2	0.1		2.3				Scrap Bin	None		7/23/2013	2
D6A6B1-00098	D6A6B1	112.91	7/25/2013	275787.84	3846508.31	Cultural Debris	Scrap	Concrete, nail	N/A	N/A	4	10	2		1.9				Scrap Bin	None		7/23/2013	2
D6A6B1-00099	D6A6B1	197.79	7/25/2013	275788.2	3846501.18	Cultural Debris	Scrap	Pipe	N/A	N/A	1	12	10		2				Scrap Bin	None		7/23/2013	2
D6A6B1-00100	D6A6B1	326.3	7/25/2013	275788.44	3846505.51	Cultural Debris	Scrap	Pipe	N/A	N/A	1	4	0.2		2.4				Scrap Bin	None		7/23/2013	2
	D6A5B9		8/6/2013	275794.64	3846419.91	MEC	Projectile	Projectile, 40mm, White Star Cluster, M58A1	Illum	Fuzed	1	4	2		0				Consoildation Point	Demo	Found with D6A5B9-349	7/23/2013	
	D6A5B9		8/6/2013	275794.64	3846419.91	MPPEH	Projectile	Projectile, 40mm, Practice, M385A1	Empty	Unfuzed	1	4	1		0				Consoildation Point	Demil	Found with D6A5B9-349	7/23/2013	
	D6A5B9		8/6/2013	275794.64	3846419.91	MEC	Fuze	Fuze, Grenade, M228	N/A	Unfired	11	4	2		0				Consoildation Point	Demo	Found with D6A5B9-349	7/23/2013	
	D6A5B9		8/6/2013	275794.64	3846419.91	MPPEH	Small Arms	5.56mm	N/A	N/A	50	4	2		0				Consoildation Point	Demil	Found with D6A5B9-349	7/23/2013	
	D6A5B9		8/6/2013	275794.64	3846419.91	MPPEH	Small Arms	7.62mm	N/A	N/A	10	4	0.5		0				Consoildation Point	Demil	Found with D6A5B9-349	7/23/2013	
	D6A5B9		8/7/2013	275797.44	3846417.11	MPPEH	Small Arms	5.56mm	N/A	N/A	600	7	15		1				Consoildation Point	Demil	Found with D6A5B9-369	7/23/2013	
	D6A5A9		8/6/2013	275749.64	3846418.71	MPPEH	Grenade	Grenade, Hand, Smoke, M83	Empty	Unfuzed	1	0	1		0				Consoildation Point	Demil	This item was not selected by DGM, based on its condition, it was recently thrown into woods. We used the nearest flag for location		
	D6A5A9		8/6/2013	275749.64	3846418.71	MPPEH	Grenade	Projectile, 40mm, Practice, M385A1	Empty	Unfuzed	1	0	0.5		0				Consoildation Point	Demil	This item was not selected by DGM, based on its condition, it was recently thrown into woods. We used the nearest flag for location		

Appendix E
MDAS and SAA Disposal Documents

Bonetti Explosives, LLC

January 19, 2014 Invoice # 3096

Mr. George Mackanin
American EOD Services, Inc.
P.O. Box 1237
Spearfish, South Dakota 57783-1237

Re: MDAS sent from Fort LeJeune, NC by CH2MHILL

Mr. Mackanin,

This letter is to verify that Bonetti Explosives, LLC has smelted and prepared for recycling, in the presence of a CH2MHILL representative, ten (10) drums weighing 2,747 lbs of MDAS which was sent on December 20, 2013. The contents of the container was not sold, traded or otherwise given to another party until the contents were properly prepared for recycle and only identifiable by their basic content. On January 14, 2014, the material was dispositioned into civilian recycling in accordance with EM 1110-1-4009; this is your final letter regarding this matter.

Thank you for your Business,

Gina Barnett

(979) 739-5597

P.O. Box 116, Columbus TX, 78934
www.Bonettiexplosives.com

(979) 739-5597
Bonetti4@yahoo.com

13681

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CC8121200-001 SC PPW 8/6/2013 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NC6170022580	1	(800) 483-3718	006846480 FLE

5. Generator's Name and Mailing Address
Marine Corps Base Camp Lejeune
AC/S G-F MCIEAST PSC Box 20005
Camp Lejeune, NC 28542
Generator's Phone: (941) 746-5375

Generator's Site Address (if different than mailing address)
UX 024
Camp Lejeune,NC 28542

6. Transporter 1 Company Name: R & R Trucking — U.S. EPA ID Number: MOR000501973

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Colfax LLC
3763 Highway 471
Colfax, LA 71417
Facility's Phone: (318) 627-3443
U.S. EPA ID Number: LAD981055791

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
x	1. UN0339, WASTE CARTRIDGES FOR WEAPONS, INERT PROJECTILE OR CARTRIDGES, SMALL ARMS, (D001,D003, D008), 1.4C, PG II, EX1997050132	1	DM	60	P	D001	D003	D008
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.CH691649

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping nama, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eugene Jones — Signature: [signature] — Month 10 Day 09 Year 13

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Timothy Clifton — Signature: [signature] — Month 10 Day 09 Year 13
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Dianne Netherlin — Signature: [signature] — Month 10 Day 16 Year 13

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

DOC IDENT	RI FROM	M&S	UNIT	ISS	QUANTITY	SER	SUPPLEMENTARY ADDRESS	SIG	FUND	DISTRIBUTION	PROJECT	PRI	REQD	DELL	DATE	ADV	RI	O/P	COND	MGT
					EA 0001															

1. TOTAL PRICE	2. SHIP FROM	3. SHIP TO
	Lot 203 Piney Green Rd Camp LeJeune, NC 28542	

UNIT PRICE DOLLARS	UNIT PRICE CTS	DOLLARS	CTS	4. MARK FOR

5. DOC DATE	6. NMFC	7. FRT RATE	8. TYPE CARGO	9. PS

10. QTY. REC'D	11.UP	12. UNIT WEIGHT	13. UNIT CUBE	14. UFC	15. SL
		12 LBS			

16. FREIGHT CLASSIFICATION NOMENCLATURE

17. ITEM NOMENCLATURE
Mixed Metal Scrap including Material Documented As Safe

18. TY CONT	19. NO CONT	20. TOTAL WEIGHT	21. TOTAL CUBE

22. RECEIVED BY	23. DATE RECEIVED

PREVIOUS EDITION MAY BE USED

24. DOCUMENT NUMBER & SUFFIX (30-44)

UXO-24, Camp LeJeune, NC

Contract No: N62470-08-D-1000
Task Order: 0014

Material Documented As Safe (MDAS)
Seal Serial No: 173759

25. NATIONAL STOCK NO. & ADD (8-22)

"The material listed on this form has been inspected or processed by DDESB-approved means, as required by DOD policy, and to the best of my knowledge and belief does not pose an explosive hazard." Reference: NAVSEA OP-5, Vol 1, Change 11, Para 13-15.5.

26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)

Combined with UXO-22
MDAS Container #003

27. ADDITIONAL DATA

CERTIFIED:
CLIFF WALDEN, CH2M HILL, UXOQCS, 352-514-9022

INSPECTOR:
JAMES KEESEE, USAE, SUXOS, 813-343-6336

CONTRACTING OFFICER: (SIGNATURE NOT REQUIRED)
CHARITY RYCHECK, EMD, 910-451-9385

Adobe Designer 8.0

Appendix F
Human Health Risk Screening Tables

TABLE F.1

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Surface Soil

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Surface Soil	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	5.1E+00 C	N/A		NO	DLBSL
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	9.9E-01 C	3.1E-02	NCSSL	NO	DLBSL
	72-54-8	4,4'-DDD	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	6.5E-03	2.2E+00 C	2.4E-01	NCSSL	NO	DLBSL
	72-55-9	4,4'-DDE	7.2E-04 J	2.1E-02 J	MG/KG	MR24-SS02-13C	4/4	0.0024 - 0.0027	2.1E-02	7.8E-02	1.6E+00 C	2.4E-01	NCSSL	NO	BSL
	50-29-3	4,4'-DDT	7.0E-04 J	1.1E-02	MG/KG	MR24-SS02-13C	4/4	0.0024 - 0.0027	1.1E-02	5.0E-02	1.9E+00 C	3.4E-01	NCSSL	NO	BSL
	309-00-2	Aldrin	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	3.1E-02 C	3.3E-03	NCSSL	NO	DLBSL
	319-84-6	alpha-BHC	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	3.2E-04	8.5E-02 C	3.6E-04	NCSSL	NO	DLBSL
	5103-71-9	alpha-Chlordane	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	4.8E-03	1.8E+00 C	6.8E-02	NCSSL	NO	DLBSL
	319-85-7	beta-BHC	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	1.7E-03	3.0E-01 C	1.2E-03	NCSSL	NO	DLBSL
	319-86-8	delta-BHC	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	3.0E-01 C	N/A		NO	DLBSL
	60-57-1	Dieldrin	1.3E-03 J	3.5E-03 J	MG/KG	MR24-SS02-13C	3/4	0.0024 - 0.0027	3.5E-03	1.3E-03	3.3E-02 C	8.1E-04	NCSSL	NO	BSL
	959-98-8	Endosulfan I	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	3.7E+01 N	5.6E+00	NCSSL	NO	DLBSL
	33213-65-9	Endosulfan II	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	3.7E+01 N	5.6E+00	NCSSL	NO	DLBSL
	1031-07-8	Endosulfan sulfate	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	3.1E-03	3.7E+01 N	8.0E+00	NCSSL	NO	DLBSL
	72-20-8	Endrin	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	2.4E-03	1.8E+00 N	8.1E-01	NCSSL	NO	DLBSL
	7421-93-4	Endrin aldehyde	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	1.8E+00 N	8.1E-01	NCSSL	NO	DLBSL
	53494-70-5	Endrin ketone	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	1.8E+00 N	8.1E-01	NCSSL	NO	DLBSL
	58-89-9	gamma-BHC (Lindane)	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	5.6E-01 C	1.8E-03	NCSSL	NO	DLBSL
	5103-74-2	gamma-Chlordane	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	2.5E-03	1.8E+00 C	6.8E-02	NCSSL	NO	DLBSL
	76-44-8	Heptachlor	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	4.5E-04	1.2E-01 C	6.6E-03	NCSSL	NO	DLBSL
	1024-57-3	Heptachlor epoxide	ND	ND	MG/KG		0/4	0.0024 - 0.0027	2.7E-03	N/A	5.9E-02 C	8.2E-04	NCSSL	NO	DLBSL
	72-43-5	Methoxychlor	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	3.1E+01 N	2.2E+01	NCSSL	NO	DLBSL
	8001-35-2	Toxaphene	ND	ND	MG/KG		0/4	0.059 - 0.066	6.6E-02	N/A	4.8E-01 C	4.6E-02	NCSSL	NO	DLBSL
	93-76-5	2,4,5-T	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	6.2E+01 N	N/A		NO	DLBSL
	93-72-1	2,4,5-TP (Silvex)	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	4.9E+01 N	3.8E-01	NCSSL	NO	DLBSL
	94-75-7	2,4-D	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	6.9E+01 N	3.2E-01	NCSSL	NO	DLBSL
	94-82-6	2,4-DB	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	4.9E+01 N	N/A		NO	DLBSL
	120-36-5	2,4-DP (Dichloroprop)	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	N/A	N/A		NO	NTX
	75-99-0	Dalapon	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	1.8E+02 N	8.1E-01	NCSSL	NO	DLBSL
	1918-00-9	Dicamba	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	1.8E+02 N	N/A		NO	DLBSL
	88-85-7	Dinoseb	ND	ND	MG/KG		0/4	0.012 - 0.013	1.3E-02	N/A	6.2E+00 N	6.3E-01	NCSSL	NO	DLBSL
	94-74-6	MCPA	ND	ND	MG/KG		0/4	2.4 - 2.7	2.7E+00	N/A	3.1E+00 N	N/A		NO	DLBSL
	93-65-2	MCPP	ND	ND	MG/KG		0/4	2.4 - 2.7	2.7E+00	N/A	6.2E+00 N	N/A		NO	DLBSL

TABLE F.1

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Surface Soil

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening. If chemical was not detected, the maximum detection limit is used for screening.

[3] Background values are background threshold values (BTVs) for surface soil data in developed areas (combined soil types).
Background values are from Final Expanded Soil Background Study Report, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina, CH2M HILL, August 2011.

[4] Oak Ridge National Laboratory (ORNL). May, 2014. Regional Screening Levels for Chemical Contaminants at Superfund Sites. [Online]. Residential Soil.
Available: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm
Soil RSLs (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens).
RSL value for nitrobenzene used as surrogate for 4-nitrophenol.
RSL value for chlordane used as surrogate for alpha-, and gamma-chlordane.
RSL value for technical-HCH used as surrogate for delta-BHC.
RSL value for endosulfan used as surrogate for endosulfan I, endosulfan II, and endosulfan sulfate.
RSL value for endrin used as surrogate for endrin aldehyde and endrin ketone.

[5] Rationale Codes

Selection Reason:	Above Screening Levels (ASL)
Deletion Reason:	No Toxicity Information (NTX)
	Below Screening Level (BSL)
	Detection Limit Below Screening Level (DLBSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic
MG/KG = micrograms per kilogram
NCSSL = North Carolina Preliminary Soil Remediation Goal, January 2014
N/A = Not available
ND = not detected

Appendix F

TABLE F.2

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Subsurface Soil

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Subsurface Soil	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/14	0.011 - 0.99	9.9E-01	N/A	5.1E+00 C	N/A		NO	DLBSL
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/14	0.011 - 0.99	9.9E-01	N/A	9.9E-01 C	3.1E-02	NCSSL	YES	DLASL
	72-54-8	4,4'-DDD	1.1E-03 J	1.9E-02	MG/KG	IR37-SB05-0103-10A	3/14	0.0018 - 0.0025	1.9E-02	N/A	2.2E+00 C	2.4E-01	NCSSL	NO	BSL
	72-55-9	4,4'-DDE	4.7E-04 J	1.7E-01	MG/KG	IR37-SB05-0103-10A	9/14	0.0018 - 0.0025	1.7E-01	2.5E-03	1.6E+00 C	2.4E-01	NCSSL	NO	BSL
	50-29-3	4,4'-DDT	2.3E-04 J	4.3E-01	MG/KG	IR37-SB05-0103-10A	9/14	0.0018 - 0.0025	4.3E-01	4.5E-03	1.9E+00 C	3.4E-01	NCSSL	NO	BSL
	309-00-2	Aldrin	4.8E-04 J	4.8E-04 J	MG/KG	IR37-SB06-0103-10A	1/14	0.0018 - 0.0025	4.8E-04	N/A	3.1E-02 C	3.3E-03	NCSSL	NO	BSL
	319-84-6	alpha-BHC	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	8.5E-02 C	3.6E-04	NCSSL	NO	DLBSL
	5103-71-9	alpha-Chlordane	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	4.2E-04	1.8E+00 C	6.8E-02	NCSSL	NO	DLBSL
	319-85-7	beta-BHC	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	3.0E-01 C	1.2E-03	NCSSL	NO	DLBSL
	319-86-8	delta-BHC	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	5.1E-04	3.0E-01 C	N/A		NO	DLBSL
	60-57-1	Dieldrin	8.2E-04 J	1.8E-02 J	MG/KG	IR37-SB06-0103-10A	6/14	0.0018 - 0.0025	1.8E-02	1.6E-03	3.3E-02 C	8.1E-04	NCSSL	NO	BSL
	959-98-8	Endosulfan I	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	3.7E+01 N	5.6E+00	NCSSL	NO	DLBSL
	33213-65-9	Endosulfan II	2.6E-03 J	2.6E-03 J	MG/KG	IR37-SB05-0103-10A	1/14	0.0018 - 0.0025	2.6E-03	N/A	3.7E+01 N	5.6E+00	NCSSL	NO	BSL
	1031-07-8	Endosulfan sulfate	1.6E-03 J	1.6E-03 J	MG/KG	IR37-SB05-0103-10A	1/14	0.0018 - 0.0025	1.6E-03	N/A	3.7E+01 N	8.0E+00	NCSSL	NO	BSL
	72-20-8	Endrin	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	1.8E+00 N	8.1E-01	NCSSL	NO	DLBSL
	7421-93-4	Endrin aldehyde	6.8E-04 J	3.3E-03 J	MG/KG	IR37-SB02-0103-10A	3/14	0.0018 - 0.0025	3.3E-03	N/A	1.8E+00 N	8.1E-01	NCSSL	NO	BSL
	53494-70-5	Endrin ketone	6.8E-04 J	7.5E-04 J	MG/KG	IR37-SB02-0103-10A	2/14	0.0018 - 0.0025	7.5E-04	N/A	1.8E+00 N	8.1E-01	NCSSL	NO	BSL
	58-89-9	gamma-BHC (Lindane)	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	5.6E-01 C	1.8E-03	NCSSL	NO	DLBSL
	5103-74-2	gamma-Chlordane	3.6E-04 J	1.1E-03 J	MG/KG	IR37-SB07-0103-10A	3/14	0.0018 - 0.0025	1.1E-03	2.8E-04	1.8E+00 C	6.8E-02	NCSSL	NO	BSL
	76-44-8	Heptachlor	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	4.7E-04	1.2E-01 C	6.6E-03	NCSSL	NO	DLBSL
	1024-57-3	Heptachlor epoxide	ND	ND	MG/KG		0/14	0.0018 - 0.0025	2.5E-03	N/A	5.9E-02 C	8.2E-04	NCSSL	NO	DLBSL
	72-43-5	Methoxychlor	ND	ND	MG/KG		0/14	0.0071 - 0.013	1.3E-02	N/A	3.1E+01 N	2.2E+01	NCSSL	NO	DLBSL
	8001-35-2	Toxaphene	ND	ND	MG/KG		0/14	0.056 - 0.097	9.7E-02	N/A	4.8E-01 C	4.6E-02	NCSSL	NO	DLBSL
	93-76-5	2,4,5-T	3.1E-02 J	3.1E-02 J	MG/KG	IR37-SB01-0103-10A	1/14	0.011 - 0.013	3.1E-02	N/A	6.2E+01 N	N/A		NO	BSL
	93-72-1	2,4,5-TP (Silvex)	ND	ND	MG/KG		0/14	0.011 - 0.013	1.3E-02	N/A	4.9E+01 N	3.8E-01	NCSSL	NO	DLBSL
	94-75-7	2,4-D	ND	ND	MG/KG		0/14	0.011 - 0.049	4.9E-02	N/A	6.9E+01 N	3.2E-01	NCSSL	NO	DLBSL
	94-82-6	2,4-DB	ND	ND	MG/KG		0/14	0.011 - 0.098	9.8E-02	N/A	4.9E+01 N	N/A		NO	DLBSL
	120-36-5	2,4-DP (Dichloroprop)	ND	ND	MG/KG		0/14	0.011 - 0.049	4.9E-02	N/A	N/A	N/A		NO	NTX
	75-99-0	Dalapon	ND	ND	MG/KG		0/14	0.011 - 0.12	1.2E-01	N/A	1.8E+02 N	8.1E-01	NCSSL	NO	DLBSL
	1918-00-9	Dicamba	ND	ND	MG/KG		0/14	0.011 - 0.024	2.4E-02	N/A	1.8E+02 N	N/A		NO	DLBSL
	88-85-7	Dinoseb	ND	ND	MG/KG		0/14	0.011 - 0.049	4.9E-02	N/A	6.2E+00 N	6.3E-01	NCSSL	NO	DLBSL
	94-74-6	MCPA	ND	ND	MG/KG		0/14	2.3 - 4.9	4.9E+00	N/A	3.1E+00 N	N/A		YES	DLASL
	93-65-2	**MCPP**	**5.1E+00 J**	**1.0E+01 J**	**MG/KG**	**IR37-SB04-0103-10A**	**3/14**	**2.3 - 4.9**	**1.0E+01**	**N/A**	**6.2E+00 N**	**N/A**		**YES**	**ASL**

TABLE F.2

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Subsurface Soil

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening. If chemical was not detected, the maximum detection limit is used for screening.

[3] Background values are background threshold values (BTVs) for subsurface soil data in developed areas (combined soil types).
Background values are from Final Expanded Soil Background Study Report, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina, CH2M HILL, August 2011.

[4] Oak Ridge National Laboratory (ORNL). May, 2014. Regional Screening Levels for Chemical Contaminants at Superfund Sites. [Online]. Residential Soil.
Available: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm
Soil RSLs (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens).
RSL value for nitrobenzene used as surrogate for 4-nitrophenol.
RSL value for technical-HCH used as surrogate for delta-BHC.
RSL value for chlordane used as surrogate for alpha- and gamma-chlordane.
RSL value for endosulfan used as surrogate for endosulfan I, endosulfan II, and endosulfan sulfate.
RSL value for endrin used as surrogate for endrin aldehyde and endrin ketone.

[5] Rationale Codes

Selection Reason:
- Above Screening Levels (ASL)
- Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA

Deletion Reason:
- No Toxicity Information (NTX)
- Essential Nutrient (NUT)
- Below Screening Level (BSL)
- Detection Limit Below Screening Level (DLBSL)
- Below Background Value (BBK)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic
MG/KG = micrograms per kilogram
NCSSL = North Carolina Preliminary Soil Remediation Goal, January 2014
N/A = Not available
ND = not detected

TABLE F.2a

Step 2 Subsurface Soil Screening - Risk Ratio, Maximum Detected Concentration

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier) (mg/kg)	Sample Location of Maximum Detected Concentration	Noncarcinogenic Residential Soil RSL (mg/kg) HQ=1	Acceptable Risk Level	Corresponding Hazard Index[a]	Target Organ
MCPP	3 / 14	1.0E+01 J	IR37-SB04-0103-10A	6.2E+01	1	0.2	Kidney
Cumulative Corresponding Hazard Index[b]						**0.2**	

Notes:

[a] Corresponding Hazard Index equals maximum detected concentration divided by the noncarcinogenic RSL divided by the acceptable hazard level of 1.

[b] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.

Constituent selected as COPC if it contributes to an overall Hazard Index by target organ greater than 0.5 or Cumulative Corresponding Cancer Risk greater than 5E-05, otherwise, constituent not selected as COPC.

Constituents selected as COPCs are indicated by shading.

COPC = Constituent of Potential Concern

mg/kg = milligrams per kilogram

RSL = Regional Screening Levels

TABLE F.3

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Controlled Detonation Surface Soil Sample

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Controlled Detonation Soil															
MR24-SS09-13	99-35-4	1,3,5-Trinitrobenzene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	2.2E+02 N	N/A		NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	6.2E-01 N	N/A		NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	3.6E+00 N	N/A		NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	1.7E+00 C	1.6E-03	NCSSL	NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	3.6E-01 C	N/A		NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotolue	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	1.5E+01 N	N/A		NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	3.2E+00 C	N/A		NO	DLBSL
	618-87-1	3,5-Dinitroaniline	ND	ND	MG/KG		0/1	0.2 - 0.2	2.0E-01	N/A	N/A	N/A		NO	NTX
	99-08-1	3-Nitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	6.2E-01 N	N/A		NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotolue	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	1.5E+01 N	N/A		NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	2.5E+01 N	N/A		NO	DLBSL
	2691-41-0	HMX	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	3.8E+02 N	N/A		NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	5.1E+00 C	N/A		NO	DLBSL
	55-63-0	Nitroglycerin	ND	ND	MG/KG		0/1	0.25 - 0.25	2.5E-01	N/A	6.2E-01 N	N/A		NO	DLBSL
	14797-73-0	Perchlorate	ND	ND	MG/KG		0/1	0.00213 - 0.00213	2.1E-03	N/A	5.5E+00 N	N/A		NO	DLBSL
	78-11-5	PETN	ND	ND	MG/KG		0/1	0.25 - 0.25	2.5E-01	N/A	1.2E+01 N	N/A		NO	DLBSL
	121-82-4	RDX	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	6.0E+00 C	N/A		NO	DLBSL
	479-45-8	Tetryl	ND	ND	MG/KG		0/1	0.1 - 0.1	1.0E-01	N/A	1.2E+01 N	N/A		NO	DLBSL
	7429-90-5	Aluminum	1.4E+03	1.4E+03	MG/KG	MR24-SS09-13C	1/1	1,350 - 1,350	1.4E+03	2.5E+04	7.7E+03 N	N/A		NO	BSL
	7440-36-0	Antimony	ND	ND	MG/KG		0/1	0.208 - 0.208	2.1E-01	1.7E+00	3.1E+00 N	9.0E-01	NCSSL	NO	DLBSL
	7440-38-2	Arsenic	7.6E-01	7.6E-01	MG/KG	MR24-SS09-13C	1/1	0.755 -0.755	7.6E-01	2.4E+00	6.7E-01 C	5.8E+00	NCSSL	NO	BBK
	7440-39-3	Barium	3.8E+00	3.8E+00	MG/KG	MR24-SS09-13C	1/1	3.78 - 3.78	3.8E+00	3.4E+01	1.5E+03 N	5.8E+02	NCSSL	NO	BSL
	7440-41-7	Beryllium	ND	ND	MG/KG		0/1	0.104 - 0.104	1.0E-01	N/A	1.6E+01 N	6.3E+01	NCSSL	NO	DLBSL
	7440-43-9	Cadmium	ND	ND	MG/KG		0/1	0.104 - 0.104	1.0E-01	5.2E-01	7.0E+00 N	3.0E+00	NCSSL	NO	DLBSL
	7440-70-2	Calcium	6.7E+01 J	6.7E+01 J	MG/KG	MR24-SS09-13C	1/1	67.2 - 67.2	6.7E+01	3.8E+03	N/A	N/A		NO	NUT
	7440-47-3	Chromium	3.1E+00	3.1E+00	MG/KG	MR24-SS09-13C	1/1	3.1 - 3.1	3.1E+00	2.3E+01	1.2E+04 N	3.6E+05	NCSSL	NO	BSL
	18540-29-9	Chromium (hexavalent)	ND	ND	MG/KG		0/1	0.0213 - 0.0213	2.1E-02	3.9E+00	3.0E-01 C	3.8E+00	NCSSL	NO	DLBSL
	7440-48-4	Cobalt	2.5E-01 J	2.5E-01 J	MG/KG	MR24-SS09-13C	1/1	0.251 - 0.251	2.5E-01	N/A	2.3E+00 N	9.0E-01	NCSSL	NO	BSL
	7440-50-8	Copper	8.9E+00	8.9E+00	MG/KG	MR24-SS09-13C	1/1	8.93 - 8.93	8.9E+00	2.5E+00	3.1E+02 N	7.0E+02	NCSSL	NO	BSL
	57-12-5	Cyanide	ND	ND	MG/KG		0/1	0.2098 - 0.2098	2.1E-01	N/A	2.1E+00 N	1.4E+01	NCSSL	NO	DLBSL
	7439-89-6	Iron	1.7E+03	1.7E+03	MG/KG	MR24-SS09-13C	1/1	1,670 - 1,670	1.7E+03	1.1E+04	5.5E+03 N	1.5E+02	NCSSL	NO	BSL
	7439-92-1	Lead	9.5E+00	9.5E+00	MG/KG	MR24-SS09-13C	1/1	9.51 - 9.51	9.5E+00	2.0E+01	4.0E+02 N	2.7E+02	NCSSL	NO	BSL
	7439-95-4	Magnesium	3.3E+01 J	3.3E+01 J	MG/KG	MR24-SS09-13C	1/1	32.7 - 32.7	3.3E+01	N/A	N/A	N/A		NO	NUT
	7439-96-5	Manganese	2.6E+00	2.6E+00	MG/KG	MR24-SS09-13C	1/1	2.56 - 2.56	2.6E+00	1.8E+01	1.8E+02 N	6.5E+01	NCSSL	NO	BSL
	7439-97-6	Mercury	ND	ND	MG/KG		0/1	0.0209 - 0.0209	2.1E-02	1.2E-01	2.3E+00 N	1.0E+00	NCSSL	NO	DLBSL
	7440-02-0	Nickel	5.6E-01	5.6E-01	MG/KG	MR24-SS09-13C	1/1	0.557 - 0.557	5.6E-01	2.7E+00	1.5E+02 N	1.3E+02	NCSSL	NO	BSL
	7440-09-7	Potassium	6.0E+01 J	6.0E+01 J	MG/KG	MR24-SS09-13C	1/1	59.8 - 59.8	6.0E+01	N/A	N/A	N/A		NO	NUT
	7782-49-2	Selenium	3.4E-01 J	3.4E-01 J	MG/KG	MR24-SS09-13C	1/1	0.339 - 0.339	3.4E-01	9.0E-01	3.9E+01 N	2.1E+00	NCSSL	NO	BSL
	7440-22-4	Silver	ND	ND	MG/KG		0/1	0.104 - 0.104	1.0E-01	N/A	3.9E+01 N	3.4E+00	NCSSL	NO	DLBSL
	7440-23-5	Sodium	ND	ND	MG/KG		0/1	20.8 - 20.8	2.1E+01	8.0E+01	N/A	N/A		NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/1	0.104 - 0.104	1.0E-01	N/A	7.8E-02 N	2.8E-01	NCSSL	YES	DLASL
	7440-62-2	Vanadium	5.2E+00	5.2E+00	MG/KG	MR24-SS09-13C	1/1	5.23 - 5.23	5.2E+00	3.4E+01	3.9E+01 N	6.0E+00	NCSSL	NO	BSL
	7440-66-6	Zinc	6.2E+00	6.2E+00	MG/KG	MR24-SS09-13C	1/1	6.2 - 6.2	6.2E+00	1.6E+01	2.3E+03 N	1.2E+03	NCSSL	NO	BSL

TABLE F.3

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Site UXO-24 - Controlled Detonation Surface Soil Sample

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening. If chemical was not detected, the maximum detection limit is used for screening.

[3] Background values are background threshold values (BTVs) for surface soil data in developed areas (combined soil types).
Background values are from Final Expanded Soil Background Study Report, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina, CH2M HILL, August 2011.

[4] Oak Ridge National Laboratory (ORNL). May, 2014. Regional Screening Levels for Chemical Contaminants at Superfund Sites. [Online]. Residential Soil.
Available: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm
Soil RSLs (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens).
RSL value for chromium (III) used as surrogate for total chromium.
RSL value for mercuric chloride (and other mercury salts) used as surrogate for mercury.

[5] Rationale Codes

Selection Reason: Above Screening Levels (ASL)
Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA

Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)
Detection Limit Below Screening Level (DLBSL)
Below Background Value (BBK)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic
MG/KG = micrograms per kilogram
NCSSL = North Carolina Preliminary Soil Remediation Goal, January 2014
N/A = Not available
ND = not detected

Appendix G
Ecological Assessment Checklist

APPENDIX G

CHECKLIST FOR ECOLOGICAL ASSESSMENTS/SAMPLING

I. SITE LOCATION

1. Site Name Site UXO-24 and IR Site 37
   US EPA ID Number _____
   Location United States Marine Corps Base (MCB), Camp Lejeune
   County Onslow City Jacksonville State NC

2. Latitude 34°44'06.31" N Longitude 77°26'52.57" W

3. Attach site maps, including a topographical map, a diagram which illustrates the layout of the facility (e.g., site boundaries, structures, etc.), and maps showing all habitat areas identified in Section III of the checklist. Also, include maps which illustrate known and suspected release areas, sampling locations and any other important features, if available. Figure D-2 of Appendix A presents site boundaries and sampling locations.

II. SITE CHARACTERIZATION

1. Indicate the approximate area of the site (i.e., acres or sq. ft.) Approximately 9 acres

2. Is this the first site visit? ☐ Yes X No, Osage of Virginia conducted sampling at Site 37 in 2010 and CH2M HILL conducted sampling at UXO 24 in 2013.
   If no, attach trip report of previous site visit(s), if available.

3. Are aerial or other site photographs available? X Yes ☐ No
   If yes, please attach any available photo(s) to the site map to the report.
   Figure D-2 of Appendix A.

4. Provide an approximate breakdown of the land uses on the site:

_____% Heavy Industrial	_____% Light Industrial	_____% Urban
_____% Residential	_____%Rural	_____% Agricultural[b]
_____% Recreational[a]	60 % Undisturbed	40 % Other[c]

[a]For recreational areas, please describe the use of the area (e.g., park, playing field, etc).
_____

[b]For agricultural areas, please list the crops and/or livestock which are present.
_____

[c]For areas designated as "other," please describe the use of the area.
US Hwy 17/NC Route 24 intersects the northeastern portion of the site. .Approximately 60% of the site is wooded. The remainder is maintained through mowing. A utility corridor bisects the site.

5. Provide an approximate breakdown of the land uses in the area surrounding the site. Indicate the radius (in miles) of the area described: _____0.5 mile radius_____

_____% Heavy Industrial	__80_% Light Industrial	____% Urban
__10_% Residential	_____% Rural	____% Agricultural[b]
_____% Recreational[a]	__10_% Undisturbed	____% Other [c]

[a]For recreational areas, please describe the use of the area (e.g., park, playing field, golf course, etc).

_____

[b]For agricultural areas, please list the crops and/or livestock which are present.

_____

[c]For areas designated as "other," please describe the use of the area.

_____

6. Has any movement of soil taken place at the site? X Yes ☐ No
If yes, indicate the likely source of the disturbance, (e.g., erosion, agricultural, mining, industrial activities, removals, etc.) degree of disturbance, and estimate when these events occurred. Military activities, and burying of discarded military munitions in the eastern portion of the site.

7. Do any sensitive environmental areas exist adjacent to or in proximity to the site, (e.g. Federal and State parks, National and State monuments, wetlands)? *Remember, flood plains and wetlands are not always obvious; do not answer "no" without confirming information. See Table 1 for a list of contacts.* Wetlands are located southeast of the site.

Please provide the source(s) of information used to identify these sensitive areas, and indicate their general location on the site map.
MCB Camp Lejeune GIS Layer for Wetlands (National Wetlands Inventory).

United States Marine Corps (USMC). 2006. Integrated Natural Resource Management Plan (INRMP) 2007-2011, Marine Corps Base Camp Lejeune, Onslow County, North Carolina. November.

8. What type of facility is located at the site?
☐ Chemical ☐ Manufacturing ☐ Mixing

☐ Waste Disposal X Other (specify)

The site is forested and includes US Hwy 17/NC Route 24. The building closest to the site (TC-611) is used for ordnance storage.

9. Identify the contaminants of potential concern (COPCs) at the site. If known, include the maximum contaminant levels. Please indicate the source of data cited (e.g., RFI, confirmatory sampling, etc).
In 2010, VOCs, SVOCs, pesticides, herbicides, and inorganics were detected in the sub-surface soil. VOCs and inorganics were detected in the groundwater. Samples collected in 2013 indicated the presence of pesticides in surface and subsurface soil. Refer to the ERS for detailed analysis.

10. Check any potential routes of off-site migration of contaminants observed at the site:

X Swales ☐ Depressions X Drainage Ditches

X Runoff ☐ Windblown Particulates X Vehicular Traffic

X Other (specify): Groundwater

11. Indicate the approximate depth to groundwater (in feet below ground surface [(bgs)].
Depth to groundwater ranges from approximately 3.8 to 18.1feet bgs.

12. Indicate the direction of groundwater flow (e.g., north, southeast, etc.)
Groundwater generally flows northeast toward Brinson Creek.

13. Is the direction of surface runoff apparent from site observations? X Yes ☐ No
If yes, to which of the following does the surface runoff discharge? Indicate all that apply.

X Surface water X Groundwater ☐ Sewer

☐ Collection Impoundment

14. Is there a navigable water body or tributary to a navigable water body?
☐ Yes X No

15. Is there a water body anywhere on or in the vicinity of the site? If yes, also complete Section III.B.1: Aquatic Habitat Checklist -- Non-Flowing Systems and/or Section III.B.2: Aquatic Habitat Checklist -- Flowing Systems.

X Yes ☐ No

16. Is there evidence of flooding? ☐ Yes X No
Wetlands and flood plains are not always obvious. Do not answer "no" without confirming information. If yes, complete Section III.C: Wetland Habitat Checklist.

17. If a field guide was used to aid any of the identifications, please provide a reference. Also, estimate the time spent identifying fauna. (Use a blank sheet if additional space is needed for text.)

18. Are any threatened and/or endangered species (plant or animal) known to inhabit the area of the site? ☐ Yes X No
If yes, you are required to verify this information with the U.S. Fish and Wildlife Service or other appropriate agencies (see Table 1 for a list of contacts). If species' identities are known, please list them next.

19. Record weather conditions at the site at the time of the site visit when information for completion of this checklist was prepared:

DATE July 2009 and July 2013

Temperature (°C/°F): Unknown

Wind (direction/speed):

Cloud Cover: Cloudy (2009), none (2013)

Normal daily high temperature (°C/°F):

Precipitation (rain, snow): None

20. Describe reasonable and likely future land and/or water use(s) at the site.
Land and water use will likely remain the same.

21. Describe the historical uses of the site. Include information on chemical releases that may have occurred as a result of previous land uses. For each chemical release, provide information on the form of the chemical released (i.e., solid, liquid, vapor) and the known or suspected causes or mechanism of the release (i.e., spills, leaks, material disposal, dumping, explosion, etc.).
Between 1950 and 1951, Site 37 was used for the surface disposal of wastes including motor parts, garbage, and wood. Munitions have been discarded at Site UXO-24.

22. Identify the media (e.g., soil [surface or subsurface], surface water, air, groundwater) which are known or suspected to contain COCs.
During investigations at Site 37, VOCs, SVOCs, pesticides, herbicides, and inorganics were detected in the sub-surface soil. VOCs and inorganics were detected in the groundwater. In 2013, pesticides were detected in the surface and subsurface soil.

II.A. SUMMARY OF OBSERVATIONS AND SITE SETTING

Include information on significant source areas and migration pathways that are likely to constitute complete exposure pathways.
Subsurface soil and groundwater exposure may be complete pathways.

Checklist Completed by__Sara Kent_(2010) and Rachel Zajac-Fay (2013)_____

Affiliation__CH2M HILL_____

Author Assisted by____ _____

Date__10/8/2010 _, 10/6/2013_____

III. HABITAT EVALUATION

III.A Terrestrial Habitat Checklist

III.A.1 Wooded

Are any wooded areas on or adjacent to the site? X Yes ☐ No

If yes, indicate the wooded area on the attached site map and answer the following questions. If more than one wooded area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual wooded area. Distinguish between wooded areas by using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.A.2: Shrub/Scrub

Wooded Area Questions

X On-site ☐ Off-site

Name or Designation: Site 37 and Site UXO-24

1. Estimate the approximate size of the wooded area (75%)
   Please identify what information was used to determine the wooded area of the site (e.g., direct observation, photos, etc). Aerial photography available through Google Earth.

2. Indicate the dominant type of vegetation in the wooded area. Provide photographs, if available.

   - ❑ Evergreen
   - ❑ Deciduous
   - X Mixed

   Dominant plant species, if known: Not identified

3. Estimate the vegetation density of the wooded area.

   - ❑ Dense (i.e., greater than 75% vegetation)
   - X Moderate (i.e., 25% to 75% vegetation)
   - ❑ Sparse (i.e., less than 25% vegetation)

4. Indicate the predominant size of the trees at the site. Use diameter at breast height.

   - ❑ 0-6 inches
   - ❑ 6-12 inches
   - ❑ >12 inches
   - X No single size range is predominant

5. Specify type of understory present, if known. Provide a photograph, if available.

III.A.2 Shrub/Scrub

Are any shrub/scrub areas on or adjacent to the site? ☐ Yes X No

If yes, indicate the shrub/scrub area on the attached site map and answer the following questions. If more than one shrub/scrub area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual shrub/scrub area. Distinguish between shrub/scrub areas, using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.A.3: Open Field

III.A.3 Open Field

Are any open field areas on or adjacent to the site? ☐ Yes X No

If yes, indicate the open field area on the attached site map and answer the following questions. If more than one open field area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual open field area. Distinguish between open field areas, using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.A.4: Miscellaneous

III.A.4 Miscellaneous

Are other types of terrestrial habitats present at the site, other than woods, scrub/shrub and open field? ☐ Yes X No

If yes, indicate the area on the attached site map and answer the following questions. If more than one of these areas are present on or adjacent to the site, make additional copies of the following questions and fill out for each individual area. Distinguish between areas by using names or other designations. Clearly identify each area on the site map.

If no, proceed to Section III.B: Aquatic Habitats.

III.B Aquatic Habitats

Note: Aquatic systems are often associated with wetland habitats. Please refer to Section III.C, Wetland Habitat Checklist.

III.B.1 Non-Flowing Systems

Are any non-flowing aquatic features (such as ponds or lakes) located at or adjacent to the site?

☐ Yes X No

If yes, indicate the aquatic feature on the attached site map and answer the following questions regarding the non-flowing aquatic features. If more than one non-flowing aquatic feature is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual aquatic feature. Distinguish between aquatic features by using names or other designations. Clearly identify each area on the site map.

If no, proceed to Section III.B.2: Flowing Systems

III.B.2 Flowing Systems

Note: Aquatic systems are often associated with wetland habitats. Please refer to Section III.C, Wetland Habitat Checklist.

Are any flowing aquatic features (such as streams or rivers) located at or adjacent to the site?

X Yes ☐ No

If yes, indicate the system on the attached site map and answer the following questions regarding the flowing system. If more than one flowing system is present on or adjacent to the site, make additional copies of the following questions and complete one set for each individual aquatic feature. Distinguish between flowing systems by using names or other designation. Clearly identify each area on the site map

If no, proceed to Section III.C: Wetlands Habitats.

Flowing Aquatic Systems Questions

X On-site ☐ Off-site

Name or Designation: None

1. Indicate the type of flowing aquatic feature present.

   - ☐ River
   - ☐ Stream/Creek/Brook
   - ☐ Intermittent stream
   - X Artificially created (ditch, etc.) Drainage ditch
   - ☐ Channeling
   - ☐ Other (specify)

2. For natural systems, are there any indicators of physical alteration (e.g., channeling, debris, etc.)? ☐ Yes X No
   If yes, please describe the indicators observed.

3. Indicate the general composition of the bottom substrate.

☐ Bedrock	☐ Sand (course)	☐ Concrete
☐ Boulder (>10 in.)	X Silt (fine)	X Debris
☐ Cobble (2.5 - 10 in.)	☐ Clay (slick)	☐ Detritus
☐ Gravel (0.1 - 2.5 in.)	X Muck (fine/black)	☐ Marl (Shells)

   X Other (please specify): Mowed grass

4. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover).
   Gradually sloped banks vegetated with mowed grasses

5. Is the system influenced by tides? ☐ Yes X No
   What information was used to make this determination?
   Distance to the New River

6. Is the flow intermittent? X Yes ☐ No
   If yes, please note the information used to make this determination.

7. Is there a discharge from the site to the water body? X Yes ☐ No
   If yes, describe the origin of each discharge and its migration path.
   Groundwater and surface water may discharge to the drainage ditch.

8. Indicate the discharge point of the water body. Specify name of the discharge, if known.
   Unknown.

9. Identify any field measurements and observations of water quality that were made. Provide the measurement and the units of measure in the appropriate space below:

_____ Width (ft.)

_____ Depth (average)

_____ Velocity (specify units):_____

_____ Temperature (depth of water where the reading was taken)_____

_____ pH

_____ Dissolved oxygen

_____ Salinity

_____ Turbidity (clear, slightly turbid, turbid, opaque)
(Secchi disk depth_____)

_____ Other (specify)

10. Describe observed color and area of coloration. None observed

11. Is any aquatic vegetation present? ☐ Yes X No
If yes, please identify the type of vegetation present, if known.

☐ Emergent ☐ Submergent ☐ Floating

12. Mark the flowing water system on the attached site map.

13. What observations were made at the water body regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, etc?
None observed

III.C Wetland Habitats

Are any wetland[1] areas such as marshes or swamps on or adjacent to the site?

X Yes ☐ No

If yes, indicate the wetland area on the attached site map and answer the following questions regarding the wetland area. If more than one wetland area is present on or adjacent to the site, make additional copies of the following questions and fill out one for each individual wetland area. Distinguish between wetland areas by using names or other designations (such as location). Clearly identify each area on the site map. Also, obtain and attach a National Wetlands Inventory Map (or maps) to illustrate each wetland area.

Identify the sources of the observations and information (e.g., National Wetland Inventory, Federal or State Agency, USGS topographic maps) used to make the determination whether or not wetland areas are present.
MCB, Camp Lejeune, North Carolina 2007-2011 Integrated Natural Resource Management Plan (INRMP), 2006.

MCB Camp Lejeune GIS Layer for Wetlands (NWI)

If no wetland areas are present, proceed to Section III.D: Sensitive Environments and Receptors.

[1]Wetlands are defined in 40 CFR §232.2 as " Areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Examples of typical wetlands plants include: cattails, cordgrass, willows and cypress trees. National wetland inventory maps may be available at http:\\nwi.fws.gov. Additional information on wetland delineation criteria is also available from the Army Corps of Engineers.

III.D Sensitive Environments and Receptors

1. Do any other potentially sensitive environmental areas[2] exist adjacent to or within one-half mile of the site? If yes, list these areas and provide the source(s) of information used to identify sensitive areas. *Do not answer "no" without confirmation from the U.S. Fish and Wildlife Service and other appropriate agencies. See Table 1 for a list of contacts.*
   Wetlands exist southeast to the site.

1. Are any areas on or near (i.e., within one-half mile) the site owned or used by local tribes? If yes, describe.

   No

3. Does the site serve or potentially serve as a habitat, foraging area or refuge by rare, threatened, endangered, candidate and/or proposed species (plants or animals), or any otherwise protected species? If yes, identify species. *This information should be obtained from the U.S. Fish and Wildlife Service and other appropriate agencies. See Table 1 for a list of contacts.*

   No

2. Is the site potentially used as a breeding, roosting or feeding area by migratory bird species? If yes, identify which species.

   Unknown

3. Is the site used by any ecologically[3], recreationally or commercially important species? If yes, explain.

   No

---

[3] Areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young and overwintering. Refer to Table 2 at the end of this document for examples of sensitive environments.

[3] Ecologically important species include populations of species which provide a critical (i.e., not replaceable) food resource for higher organisms. These species' functions would not be replaced by more tolerant species or perform a critical ecological function (such as organic matter decomposition) and will not be replaced by other species. Ecologically important species include pest and opportunistic species that populate an area if they serve as a food source for other species, but do not include domesticated animals (e.g., pets and livestock) or plants/animals whose existence is maintained by continuous human interventions (e.g., fish hatcheries, agricultural crops, etc).

IV. EXPOSURE PATHWAY EVALUATION

1. Do existing data provide sufficient information on the nature, rate and extent of contamination at the site?

   X Yes
   ❑ No
   ❑ Uncertain

   Please provide an explanation for your answer.
   Surface soil and subsurface soil data collected in 2013 has been evaluated with previous data collected in 2010.

2. Do existing data provide sufficient information on the nature, rate and extent of contamination in offsite affected areas?

   X Yes
   ❑ No
   ❑ Uncertain
   ❑ No offsite contamination

   Please provide an explanation for your answer.
   See #1 of this section.

3. Do existing data address potential migration pathways of contaminants at the site?

   ❑ Yes
   ❑ No
   X Uncertain

   Please provide an explanation for your answer.

   Data were collected based on potential migration pathways (i.e. leaching, groundwater to surface water). The majority of contaminants were found in subsurface soils and are not anticipated to impact surface water.

4. Do existing data address potential migration pathways of contaminants in offsite affected areas?

X Yes
❑ No
❑ Uncertain
❑ No offsite contamination

Please provide an explanation for your answer. Concentration of COPCs in groundwater are not expected to be high enough to cause any discernable impact to Brinson Creek or the New River. The majority of soil contamination was detected in subsurface soils and is not likely to impact surface water.

5. Are there visible indications of stressed habitats or receptors on or near (i.e., within one-half mile) the site that may be the result of a chemical release? If yes, explain. Attach photographs if available.

No

6. Is the location of the contamination such that receptors might be reasonably expected to come into contact with it? For soil, this means contamination in the soil 0 to 1 foot below ground surface (bgs). If yes, explain.

Pesticides were detected where receptors are present.

7. Are receptors located in or using habitats where chemicals exist in air, soil, sediment or surface water? If yes, explain.

Yes, flora and fauna may be exposed.

8. Could chemicals reach receptors via groundwater? Can chemicals leach or dissolve to groundwater? Are chemicals mobile in groundwater? Does groundwater discharge into receptor habitats? If yes, explain.

Water level measurement data suggests that shallow groundwater within the vicinity of the site generally flows northeast towards Brinson Creek. Should the low level concentrations in groundwater migrate toward the creek, concentrations will likely dilute and attenuate to the extent that aquatic receptors would not be at risk.

9. Could chemicals reach receptors through runoff or erosion? Answer the following questions.

Runoff into the drainage ditch could reach receptors. However, the majority of contamination was found in subsurface soils and is not likely to impact surface water.

10. What is the approximate distance from the contaminated area to the nearest watercourse?

- X 0 feet (i.e., contamination has reached a watercourse)
- ❑ 1-10 feet
- ❑ 11-20 feet
- ❑ 21-50 feet
- ❑ 51-100 feet
- ❑ 101-200 feet
- ❑ > 200 feet
- ❑ > 500 feet
- ❑ > 1000 feet

11. What is the slope of the ground in the contaminated area?

- X 0-10%
- ❑ 10-30%
- ❑ > 30%

12. What is the approximate amount of ground and canopy vegetative cover in the contaminated area?

- ❑ < 25%
- X 25-75%
- ❑ > 75%

13. Is there visible evidence of erosion (e.g., a rill or gully) in or near the contaminated area?

- ❑ Yes
- X No
- ❑ Do not know

14. Do any structures, pavement or natural drainage features direct run-on flow (i.e., surface flows originating upstream or uphill from the area of concern) into the contaminated area?

- ❑ Yes
- ❑ No
- X Do not know

15. Could chemicals reach receptors through the dispersion of contaminants in air (e.g., volatilization, vapors, fugitive dust)? If yes, explain.

<u>No</u>

16. Could chemicals reach receptors through migration of non-aqueous phase liquids (NAPLs)? Is a NAPL present at the site that might be migrating towards receptors or habitats? Could NAPL discharge contact receptors or their habitat?

No

Appendix H
Ecological Risk Screening Tables

Appendix H
Table H-1

Ecological Risk Screening-Surface Soil

Site UXO-24

Preliminary Assessment/Site Inspection

MCIEAST-MCB CAMLEJ

North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient[2]	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Background Threshold Value[2]	Retain?	Rationale
Pesticide/Polychlorinated Biphenyls (UG/KG)															
4,4'-DDD	0.47 - 0.53	0 / 4	--	--	NSV	-- / --	NSV	0.25	NSV	--	--	--	6.49	No	Not detected
4,4'-DDE	-- - --	4 / 4	21.0	MR24-SS02-13C	NSV	-- / --	NSV	6.76	NSV	--	--	--	78.4	No	Consistent with background
4,4'-DDT	-- - --	4 / 4	11.0	MR24-SS02-13C	NSV	-- / --	NSV	4.70	NSV	--	--	--	49.8	No	Consistent with background
Total DDT	-- - --	-- / --	32.0	MR24-SS02-13C	21	1 / 4	1.52	11.45	0.55	--	--	--	--	No	Low magnitude of exceedance, mean HQ less than one
Aldrin	0.47 - 0.53	0 / 4	--	--	2.50	-- / --	0.21	0.25	0.099	--	--	--	--	No	Not detected
alpha-BHC	0.47 - 0.53	0 / 4	--	--	2.50	-- / --	0.21	0.25	0.099	--	--	--	--	No	Not detected
alpha-Chlordane	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
beta-BHC	0.47 - 0.53	0 / 4	--	--	1.00	-- / --	0.53	0.25	0.25	--	--	--	--	No	Not detected
delta-BHC	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Dieldrin	0.49 - 0.49	3 / 4	3.50	MR24-SS02-13C	4.90	0 / 4	0.71	1.71	0.35	--	--	--	--	No	HQ less than one
Endosulfan I	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Endosulfan II	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Endosulfan sulfate	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Endrin	0.47 - 0.53	0 / 4	--	--	1.00	-- / --	0.53	0.25	0.25	--	--	--	--	No	Not detected
Endrin aldehyde	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Endrin ketone	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
gamma-BHC (Lindane)	0.47 - 0.53	0 / 4	--	--	0.050	-- / --	10.6	0.25	4.95	--	--	--	--	No	Not detected
gamma-Chlordane	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Heptachlor	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Heptachlor epoxide	0.47 - 0.53	0 / 4	--	--	100	-- / --	0.0053	0.25	0.0025	--	--	--	--	No	Not detected
Methoxychlor	4.70 - 5.30	0 / 4	--	--	100	-- / --	0.053	2.48	0.025	--	--	--	--	No	Not detected
Toxaphene	12.0 - 13.0	0 / 4	--	--	100	-- / --	0.13	6.13	0.061	--	--	--	--	No	Not detected
Herbicides (UG/KG)															
2,4,5-T	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
2,4,5-TP (Silvex)	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
2,4-D	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
2,4-DB	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
2,4-DP (Dichloroprop)	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
4-Nitrophenol	5.90 - 6.60	0 / 4	--	--	7,000	-- / --	9.43E-04	3.09	4.41E-04	--	--	--	--	No	Not detected
Dalapon	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
Dicamba	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
Dinoseb	5.90 - 6.60	0 / 4	--	--	NSV	-- / --	NSV	3.09	NSV	--	--	--	--	No	Not detected
MCPA	1,200 - 1,300	0 / 4	--	--	NSV	-- / --	NSV	613	NSV	--	--	--	--	No	Not detected
MCPP	1,200 - 1,300	0 / 4	--	--	NSV	-- / --	NSV	613	NSV	--	--	--	--	No	Not detected
Pentachlorophenol	5.90 - 6.60	0 / 4	--	--	2,100	-- / --	0.0031	3.09	0.0015	--	--	--	--	No	Not detected

NOTES
1 - Count of detected samples exceeding or equaling Screening Value
2 - Developed, combined surface soil background values
HQ - Hazard Quotient
NSV - No Screening Value
UG/KG - Micrograms per kilogram

Appendix H
Table H-2
Ecological Risk Screening - Subsurface Soil
Site UXO-24
Preliminary Assessment/Site Inspection
MCIEAST-MCB CAMLEJ
North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Background Threshold Value[2]	Step 2 COPC?	Rationale
Pesticide/Polychlorinated Biphenyls (UG/KG)															
4,4'-DDD	0.45 - 2.00	3 / 14	19.0	IR37-SB05-0103-10A	NSV	-- / --	NSV	2.74	NSV	--	--	--	2.46	No	See total DDT
4,4'-DDE	0.46 - 2.00	9 / 14	170	IR37-SB05-0103-10A	NSV	-- / --	NSV	15.3	NSV	--	--	--	--	No	See total DDT
4,4'-DDT	0.46 - 2.00	9 / 14	430	IR37-SB05-0103-10A	NSV	-- / --	NSV	32.5	NSV	--	--	--	4.5	No	See total DDT
Total DDT	-- - --	-- / --	619	IR37-SB05-0103-10A	21	2 / 14	29.5	46.5	2.2	--	--	--	--	No	See text for discussion
Aldrin	0.45 - 2.00	1 / 14	0.48	IR37-SB06-0103-10A	2.50	0 / 14	0.19	0.62	0.25	--	--	--	--	No	HQ less than one
alpha-BHC	0.45 - 2.00	0 / 14	--	--	2.50	-- / --	0.80	0.65	0.26	--	--	--	--	No	Not Detected
alpha-Chlordane	0.45 - 2.00	0 / 14	--	--	100	-- / --	0.020	0.65	0.0065	--	--	--	--	No	Not Detected
beta-BHC	0.45 - 2.00	0 / 14	--	--	1.00	-- / --	2.00	0.65	0.65	--	--	--	--	No	Not Detected
delta-BHC	0.45 - 2.00	0 / 14	--	--	100	-- / --	0.020	0.65	0.0065	--	--	--	--	No	Not Detected
Dieldrin	0.45 - 2.00	6 / 14	18.0	IR37-SB06-0103-10A	4.90	3 / 14	3.67	3.30	0.67	--	--	--	1.61	No	See text for discussion
Endosulfan I	0.45 - 2.00	0 / 14	--	--	100	-- / --	0.020	0.65	0.0065	--	--	--	--	No	Not Detected
Endosulfan II	0.45 - 2.00	1 / 14	2.60	IR37-SB05-0103-10A	100	0 / 14	0.026	0.77	0.0077	--	--	--	--	No	HQ less than one
Endosulfan sulfate	0.45 - 2.00	1 / 14	1.60	IR37-SB05-0103-10A	100	0 / 14	0.016	0.70	0.0070	--	--	--	--	No	HQ less than one
Endrin	0.45 - 2.00	0 / 14	--	--	1.00	-- / --	2.00	0.65	0.65	--	--	--	--	No	Not Detected
Endrin aldehyde	0.45 - 2.00	3 / 14	3.30	IR37-SB02-0103-10A	100	0 / 14	0.033	0.84	0.0084	--	--	--	--	No	HQ less than one
Endrin ketone	0.45 - 2.00	2 / 14	0.75	IR37-SB02-0103-10A	100	0 / 14	0.0075	0.62	0.0062	--	--	--	--	No	HQ less than one
gamma-BHC (Lindane)	0.45 - 2.00	0 / 14	--	--	0.050	-- / --	40.0	0.65	13.1	--	--	--	--	No	Not Detected
gamma-Chlordane	0.45 - 2.00	3 / 14	1.10	IR37-SB07-0103-10A	100	0 / 14	0.011	0.64	0.0064	--	--	--	0.2810	No	Consistent with background; HQ less than one
Heptachlor	0.45 - 2.00	0 / 14	--	--	100	-- / --	0.020	0.65	0.0065	--	--	--	--	No	Not Detected
Heptachlor epoxide	0.45 - 2.00	0 / 14	--	--	100	-- / --	0.020	0.65	0.0065	--	--	--	--	No	Not Detected
Methoxychlor	4.50 - 7.80	0 / 14	--	--	100	-- / --	0.078	3.19	0.032	--	--	--	--	No	Not Detected
Toxaphene	11.0 - 97.0	0 / 14	--	--	100	-- / --	0.97	29.3	0.29	--	--	--	--	No	Not Detected
Herbicides (UG/KG)															
2,4,5-T	5.70 - 12.0	1 / 14	31.0	IR37-SB01-0103-10A	NSV	-- / --	NSV	6.50	NSV	596	USEPA, 2003	0.0520	--	No	Supplemental HQ less than one
2,4,5-TP (Silvex)	5.70 - 12.0	0 / 14	--	--	NSV	-- / --	NSV	4.71	NSV	--	--	--	--	No	Not Detected
2,4-D	5.70 - 49.0	0 / 14	--	--	NSV	-- / --	NSV	14.8	NSV	--	--	--	--	No	Not Detected
2,4-DB	5.70 - 98.0	0 / 14	--	--	NSV	-- / --	NSV	28.3	NSV	--	--	--	--	No	Not Detected
2,4-DP (Dichloroprop)	5.70 - 49.0	0 / 14	--	--	NSV	-- / --	NSV	14.8	NSV	--	--	--	--	No	Not Detected
4-Nitrophenol	5.70 - 990	0 / 14	--	--	7,000	-- / --	0.14	271	0.039	--	--	--	--	No	Not Detected
Dalapon	5.70 - 120	0 / 14	--	--	NSV	-- / --	NSV	35.6	NSV	--	--	--	--	No	Not Detected
Dicamba	5.70 - 24.0	0 / 14	--	--	NSV	-- / --	NSV	8.00	NSV	--	--	--	--	No	Not Detected
Dinoseb	5.70 - 49.0	0 / 14	--	--	NSV	-- / --	NSV	14.8	NSV	--	--	--	--	No	Not Detected
MCPA	1,100 - 4,900	0 / 14	--	--	NSV	-- / --	NSV	1,604	NSV	--	--	--	--	No	Not Detected
MCPP	1,100 - 4,800	3 / 14	10,000	IR37-SB04-0103-10A	NSV	-- / --	NSV	2,586	NSV	--	--	--	--	No	See text for discussion
Pentachlorophenol	5.70 - 990	0 / 14	--	--	2,100	-- / --	0.47	271	0.13	--	--	--	--	No	Not Detected

NOTES
NSV - No Screening Value
1 - Count of detected samples exceeding or equaling Screening Value
2 - Developed, combined surface soil background values
MG/KG - Milligrams per kilogram
UG/KG - Micrograms per kilogram

Appendix H
Table H-3
Ecological Risk Screening-Post Detonation Surface Soil
Site UXO-24
Preliminary Assessment/Site Inspection
MCIEAST-MCB CAMLEJ
North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Minimum Concentration Detected	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Background Threshold Value[2]	Retain	Rationale
Semivolatile Organic Compounds (UG/KG)													
2,4-Dinitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
2,6-Dinitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
Nitrobenzene	100 - 100	0 / 1	--	--	--	40,000	-- / --	0.0025	50.0	0.0013	--	No	Not detected
Explosives (UG/KG)													
1,3,5-Trinitrobenzene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
1,3-Dinitrobenzene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
2,4,6-Trinitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
2-Amino-4,6-dinitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
2-Nitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
3,5-Dinitroaniline	200 - 200	0 / 1	--	--	--	NSV	-- / --	NSV	100	NSV	--	No	Not detected
3-Nitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
4-Amino-2,6-dinitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
4-Nitrotoluene	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
HMX	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
Nitroglycerin	250 - 250	0 / 1	--	--	--	NSV	-- / --	NSV	125	NSV	--	No	Not detected
Perchlorate	2.13 - 2.13	0 / 1	--	--	--	NSV	-- / --	NSV	1.07	NSV	--	No	Not detected
PETN	250 - 250	0 / 1	--	--	--	NSV	-- / --	NSV	125	NSV	--	No	Not detected
RDX	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
Tetryl	100 - 100	0 / 1	--	--	--	NSV	-- / --	NSV	50.0	NSV	--	No	Not detected
Inorganics (MG/KG)													
Aluminum	-- - --	1 / 1	1,350	1,350	MR24-SS09-13C	50.0	1 / 1	27.0	1,350	27.0	25,000	No	Consistent with background
Antimony	0.21 - 0.21	0 / 1	--	--	--	0.27	-- / --	0.77	0.10	0.39	1.72	No	Not detected
Arsenic	-- - --	1 / 1	0.76	0.76	MR24-SS09-13C	18.0	0 / 1	0.042	0.76	0.042	2.42	No	HQ less than one; consistent with background
Barium	-- - --	1 / 1	3.78	3.78	MR24-SS09-13C	330	0 / 1	0.011	3.78	0.011	33.8	No	HQ less than one; consistent with background
Beryllium	0.10 - 0.10	0 / 1	--	--	--	21.0	-- / --	0.0050	0.052	0.0025	--	No	Not detected
Cadmium	0.10 - 0.10	0 / 1	--	--	--	0.36	-- / --	0.29	0.052	0.14	0.52	No	Not detected
Calcium [3]	-- - --	1 / 1	67.2	67.2	MR24-SS09-13C	NSV	-- / --	NSV	67.2	NSV	3,790	No	Macronutrient
Chromium	-- - --	1 / 1	3.10	3.10	MR24-SS09-13C	26.0	0 / 1	0.12	3.10	0.12	23.1	No	HQ less than one; consistent with background
Chromium (Hexavalent)	0.021 - 0.021	0 / 1	--	--	--	NSV	-- / --	NSV	0.011	NSV	3.91	No	Not detected
Cobalt	-- - --	1 / 1	0.25	0.25	MR24-SS09-13C	13.0	0 / 1	0.019	0.25	0.019	--	No	HQ less than one
Copper	-- - --	1 / 1	8.93	8.93	MR24-SS09-13C	28.0	0 / 1	0.32	8.93	0.32	2.50	No	HQ less than one
Cyanide	0.21 - 0.21	0 / 1	--	--	--	NSV	-- / --	NSV	0.10	NSV	--	No	Not detected
Iron	-- - --	1 / 1	1,670	1,670	MR24-SS09-13C	200	1 / 1	8.35	1,670	8.35	11,100	No	Consistent with background
Lead	-- - --	1 / 1	9.51	9.51	MR24-SS09-13C	11.0	0 / 1	0.86	9.51	0.86	20.2	No	HQ less than one; consistent with background
Magnesium [3]	-- - --	1 / 1	32.7	32.7	MR24-SS09-13C	NSV	-- / --	NSV	32.7	NSV	--	No	Macronutrient
Manganese	-- - --	1 / 1	2.56	2.56	MR24-SS09-13C	220	0 / 1	0.012	2.56	0.012	18.3	No	HQ less than one; consistent with background
Mercury	0.021 - 0.021	0 / 1	--	--	--	0.10	-- / --	0.21	0.010	0.10	0.12	No	Not detected
Nickel	-- - --	1 / 1	0.56	0.56	MR24-SS09-13C	38.0	0 / 1	0.015	0.56	0.015	2.73	No	HQ less than one; consistent with background
Potassium [3]	-- - --	1 / 1	59.8	59.8	MR24-SS09-13C	NSV	-- / --	NSV	59.8	NSV	--	No	Macronutrient
Selenium	-- - --	1 / 1	0.34	0.34	MR24-SS09-13C	0.52	0 / 1	0.65	0.34	0.65	0.896	No	HQ less than one; consistent with background
Silver	0.10 - 0.10	0 / 1	--	--	--	4.20	-- / --	0.025	0.052	0.012	--	No	Not detected
Sodium [3]	20.8 - 20.8	0 / 1	--	--	--	NSV	-- / --	NSV	10.4	NSV	79.7	No	Not detected
Thallium	0.10 - 0.10	0 / 1	--	--	--	1.00	-- / --	0.10	0.052	0.052	--	No	Not detected
Vanadium	-- - --	1 / 1	5.23	5.23	MR24-SS09-13C	7.80	0 / 1	0.67	5.23	0.67	34.1	No	HQ less than one; consistent with background
Zinc	-- - --	1 / 1	6.20	6.20	MR24-SS09-13C	46.0	0 / 1	0.13	6.20	0.13	16.2	No	HQ less than one; consistent with background

NOTES
1 - Count of detected samples exceeding or equaling Screening Value
2 - Developed, combined surface soil background values
3 - Macronutrient - Not considered to be a COPC
HQ - Hazard Quotient
MG/KG - Milligrams per kilogram
NSV - No Screening Value
UG/KG - Micrograms per kilogram