2/1/09-04270

Final

Expanded Site Inspection Report
MMRP Site UXO-04, Knox Trailer Park

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

NAVFAC
Naval Facilities Engineering Command
NAVFAC ATLANTIC

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Atlantic Division

Contract No. N62470-02-D-3052
CTO-0109 and 0191

February 2009

Prepared by
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Acronyms and Abbreviations

^{o}F	degrees Fahrenheit
BAFs	bioaccumulation factors
BERA	baseline ecological risk assessment
bgs	below ground surface
Cal EPA	California EPA
CLEAN	Comprehensive Long-Term Environmental Action Navy
COPC	constituent of potential concern
CSFs	cancer slope factors
CTE	central tendency EPC
DDD	Dichlorodiphenyldichloroethane
DGM	digital geophysical mapping
DMM	discarded military munition
DO	dissolved oxygen
DoD	Department of Defense
DPT	Direct Push Technology
DQO	data quality objective
DRMO	Defense Reutilization and Marketing Office
DRO	diesel range organics
ELCR	excess lifetime carcinogenic risk
EOD	explosive ordnance disposal
EPC	exposure point concentrations
EqP	equilibrium partitioning
ERA	ecological risk assessment
ER-L	Effects Range-Low
ESI	Expanded Site Inspection
ESS	explosives safety submission
ft	feet/foot
FID	flame ionization detector
GI	gastrointestinal
GIS	geographic information system
GPO	geophysical prove-out
GPS	global positioning system
GRO	gasoline range organics
HEAST	Health Effects Assessment Summary Tables
HHRA	Human Health Risk Assessment
HI	hazard index
HQ	hazard quotient
HTW	hazardous or toxic waste

IDW	investigation derived waste
IRIS	Integrated Risk Information System
LANTDIV	Atlantic Division
LOAEL	Lowest Observed Effect Level
MCB	Marine Corps Base
MCL	maximum contaminant level
MD	munitions debris
MEC	munitions and explosives of concern
MFs	modifying factors
Mg/kg-BW/day	milligrams of the chemical per kilogram body weight of the receptor per day
MPPEH	material potentially presenting an explosive hazard
MR	munitions response
MMRP	Military Munitions Response Program
MS/MSD	matrix spike/matrix spike duplicate
NAVD 88	North American Datum of 1988
NAVFAC	Naval Facilities Engineering Command
NC2L	North Carolina Groundwater Quality Standards
NC 2B	North Carolina Administrative Code 02B Surface Water Standards
NCEA	National Center for Environmental Assessment
NCDENR	North Carolina Department of Environment and Natural Resources
NC SSL	North Carolina Soil Screening Levels
NMFRL	Naval Medical Field Research Laboratory
NOAEL	No Observed Adverse Effect Level
NRWQC	National Recommended Water Quality Criteria
ORP	oxidation reduction potential
PAH	polycyclic aromatic hydrocarbon
PCBs	polychlorinated biphenyls
PID	photo-ionization detector
PPE	personnel protective equipment
PPV	public-private venture
PPRTV	Provisional Peer Reviewed Toxicity Value
PQL	practical quantification limit
PRGs	Preliminary Remediation Goals
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
R	Rejected
RAC	Remedial Action Contractor
RAGS	Risk Assessment Guidance for Superfund
RfDs	reference doses
RME	reasonable maximum exposure
RTK	real-time kinematic

SLC	Screening Level Concentration
SLERA	screening-level ecological risk assessment
SMDPs	Scientific Management Decision Points
STSC	Superfund Health Risk Technical Support Center
SVOC	semivolatile organic compound
TAL	target analyte list
TCL	target compound list
TNT	2,4,6-trinitrotoluene
TOC	total organic carbon
TOX	total organic halogens
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
UFs	uncertainty factors
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
VOC	volatile organic compound
WHO	World Health Organization
WOE	weight-of-evidence

SECTION 1

Introduction

This report summarizes activities and results, and presents conclusions of the Expanded Site Inspection (ESI) conducted at Military Munitions Response Program (MMRP) Site UXO-04, Marine Corps Base (MCB) Camp Lejeune in Jacksonville, North Carolina, see **Figure 1-1**. The purpose of the ESI was to assess approximately 133 acres of Site UXO-04, including the former Knox Trailer Park, that have been identified for a public–private venture (PPV) residential-housing development, to determine if the site was properly classified as an MMRP Site and to determine if the site was fit for development.

1.1 Objectives and Approach

To accomplish the purpose of the ESI, the following objectives were identified:

- Identify historical activities that may have resulted in environmental contamination with munitions and explosives of concern (MEC) or hazardous or toxic waste (HTW) by researching archival records and interviewing current and previous installation personnel.
- Estimate the nature, number, and density of geophysical anomalies that potentially represent subsurface MEC through digital geophysical mapping (DGM).
- Evaluate the nature and density of selected geophysical anomalies indicative of potential subsurface MEC by conducting a MR intrusive investigation.
- Evaluate the presence and nature of HTW contamination that may exist by conducting an investigation of soil, groundwater, surface water, and sediment.

To achieve these objectives, the field activities were completed in several phases between November 2005 and October 2007 as follows:

- Phase I Environmental Investigation (November 2005 through April 2006) - Field activities included site clearing, surveying, DGM, monitoring well installation, and environmental sampling of surface and subsurface soil, groundwater, surface water and sediment.
- Phase I MR Intrusive Investigation (January 2007) - Field activities included intrusive investigation of 10% of the geophysical anomalies identified based on DGM.
- Phase II Environmental Investigation (August through October 2007) - Field activities included additional site clearing and environmental multi-incremental sampling of surface soil, subsurface soil, groundwater, surface water and sediment based on the results of the Phase I environmental investigation.

Figure 1-2 provides a timeline of the work planning and field activities completed at Site UXO-04. Field activities were conducted in accordance with the ESI work plans: *Final Work*

Plan for the Expanded Site Investigation, Site UXO-04 – Knox Trailer Park (CH2M HILL, 2005b), *Munitions and Explosives of Concern Intrusive Investigation Work Plan, Site UXO-04 – Knox Trailer Park (*CH2M HILL, 2006b) and *Final Phase II Environmental Sampling Work Plan, Site UXO-04 – Knox Trailer Park* (CH2M HILL, 2007). The technical approach included in the work plans was agreed to by the MCB Camp Lejeune Tier I Partnering Team, which includes representatives from the Navy, MCB Camp Lejeune, United States Environmental Protection Agency (USEPA) Region 4, and North Carolina Division of Environmental and Natural Resources (NCDENR).

1.2 Report Organization

This ESI report is organized as follows:

- **Section 1, Introduction**
- **Section 2, Site Background**
- **Section 3, Field Investigation Activities**
- **Section 4, Investigation Results**
- **Section 5, Human Health Risk Assessment**
- **Section 6, Ecological Risk Assessment**
- **Section 7, Conclusions and Recommendations**
- **Section 8, References**

Tables, figures and appendices are provided after Section 8.

SECTION 2

Site Background

This section presents a brief summary of the location and description of MCB Camp Lejeune and Site UXO-04, the historical use of Site UXO-04, and the regional and local geology and hydrogeology.

2.1 MCB Camp Lejeune Location and Description

MCB Camp Lejeune covers approximately 236 square miles in Onslow County, North Carolina and is bisected by the New River, which flows in a southeasterly direction and forms a large estuary before entering the Atlantic Ocean (**Figure 1-1**). Construction of MCB Camp Lejeune began in 1941 with the objective of developing the "World's Most Complete Amphibious Training Base." The mission of MCB Camp Lejeune is to maintain combat-ready units for expeditionary deployment. MCB Camp Lejeune provides housing, training facilities, logistical support, and administrative supplies for Fleet Marine Force units and other assigned units. MCB Camp Lejeune is home to an active duty, dependent, retiree, and civilian population of approximately 150,000, of which approximately 47,000 are military personnel. A majority of the land surrounding the facility is used for agriculture. Estuaries along the coast support commercial fishing and residential resort areas are located adjacent to MCB Camp Lejeune along the Atlantic Ocean.

2.2 Site UXO-04 Location and Description

Site UXO-04 consists of approximately 133 acres in the northern portion of MCB Camp Lejeune (**Figure 1-1**). The Northeast Creek defines the southern boundary, Scales Creek flows near the northwestern boundary, and an unnamed tributary flows near the northeastern boundary (**Figure 2-1**).

The former Knox Trailer Park covers approximately 38 acres of MMRP Site UXO-04. The former trailer park property is level and vegetated with grass and minimal tree cover. All residents have vacated the trailer park and the remaining mobile homes have been removed from the site. A network of narrow roadways covers the former trailer park (**Figure 2-1**). All utilities, including telephone, cable, water, electricity, and sewers, are buried and are assumed to be intact.

The remaining area of Site UXO-04 consists of approximately 95 acres of woodland that surrounds the former Knox Trailer Park to the north, east, and west. Undergrowth less than three inches in diameter was removed from the majority of the wooded area during the field investigation in support of field activities.

2.3 Site UXO-04 History

The Site UXO-04 area was used as a Civilian Conservation Corps Camp in 1941. Camp personnel assisted with road work, forestry, and other phases of developing the land into a modern military post (Carraway, 1946). Another function of the Civilian Conservation Corps Camp at Camp Lejeune (in conjunction with the Malaria Control Detachment of the Marines) was to eliminate the source of endemic malaria by draining all surrounding wetlands. This was accomplished by ditching, using dynamite, and spraying diesel oil on water surfaces as a larvicide (Kimball, 2005).

A former maneuver training area (AD Training Area) was located in the northernmost portion of Site UXO-04. The area was in operation during the 1940s and was administratively closed by the Environmental Management Division of the Marine Corps in January 2004. No further action was determined for the AD Training Area (Richardson, 2005; Department of the Navy, 2005). The area was a non-firing area used for land navigation, patrolling, and field training, and is currently in use by the Marine Corps Combat Service Support School at Camp Johnson (Richardson, 2005).

A dog-training school was located in the southernmost area of Site UXO-04 and operated from 1942 to 1946. The dogs were subjected to overhead rifle and machine gun fire and explosions of charges of dynamite and 2,4,6-trinitrotoluene (TNT) to simulate battlefield conditions (Marine Devil Dogs!, 2005). The dogs and handlers were exposed to explosives typically found in a combat environment on a weekly basis. Explosives used during training included Dago bombs and quarter cans of TNT (Putney, 2001).

During WWII, there was increased research into the use of body armor to protect the troops from serious injury. Most of the testing occurred at the Naval Medical Field Research Laboratory (NMFRL), though some research facilities were located at Camp Knox (the former Knox Trailer Park area). While the specific testing at the Camp Knox research facilities has not been determined, it is known that the body armor was able to resist impact from .22 and .45 caliber automatic pistol bullets and Reising and Thompson sub–machine gun bullets at a distance of 15 feet (ft). In addition, tests showed that the armor stopped all fragments from a detonated hand grenade (TNT-loaded) at a distance of 3 ft (Montrose, 1955). The research facilities at Camp Knox most likely fired ball-type ammunition at the vests. The firing was most likely performed inside buildings (based on historical photographs), and it is not thought that a significant amount of ammunition was expended for testing purposes (Kimball, 2005). Testing and development continued at the NMFRL throughout the Korean conflict until the cease fire was called in July 1953 (Montrose, 1955).

From the early 1950s until 2006, the Knox Trailer Park area was used for residential housing. In the 1974 to 1976 timeframe, an explosives ordnance disposal (EOD) technician, Mr. Don Cifelli, responded to the discovery of UXO in the Knox Trailer Park area. A bulldozer operator uncovered a live World War II MK-II high-explosive hand grenade while conducting excavation activities (Cifelli, 2005a). The safety pin had been removed, the grenade had been thrown, and the striker had impinged the primer without causing the primer to function, thereby rendering the grenade a dud. The exact location of the grenade is not documented, but Mr. Cifelli recalls it being located off the main road leading to the

trailer park (Cifelli, 2005b). Mr. Cifelli also recalls responding to up to three additional discoveries of practice grenades during intrusive activities in the area.

The discovery of previous grenades, along with interviews from EOD personnel, may contribute to the Knox Trailer Park area's inclusion as a suspected historic hand grenade range [called the Knox Trailer Park Grenade Range (Area A)] in the Draft *2002 Range Inventory Report* (URS, 2002). The grenades used in this area were reportedly MK-II and MK-IIA1. According to the specifications, each type had a serrated cast-iron body; the MK-II grenades were equipped with an M204A1 fuse, whereas the MK-IIA1 grenades were equipped with a M10A3 fuse. Specifications state that each unit was filled with 2 oz. of flaked or granular TNT, though some older units contained E.C. Blank Smokeless Powder (U.S. Army Corp of Engineers, 2001).

According to base personnel, the site area was never a live fire range for grenades or any other munitions (Lowder, 2005). In addition, the consulting historian for the base reported that he has not encountered any documentation that supports the Knox Trailer Park area having been an established range (Kimball, 2005). A visual inspection of the Knox Trailer Park area was conducted in November 2002 by the base's EOD team, and no UXO was discovered (McGurty, 2005).

Documentation of the archival research and interviews conducted is contained in the Archival Research Report, provided as **Appendix A**.

2.4 Regional Climate

The climate in the MCB Camp Lejeune area is characterized by short, mild winters with occasional short-duration cold periods and long, hot humid summers. Average annual net precipitation is approximately 50 inches. Ambient air temperatures generally range from 33 degrees to 53 degrees Fahrenheit (°F) in the winter months, and from 71°F to 88°F during the summer months. Winds are generally south-southwesterly in the summer and north-northwesterly in the winter (Water and Air Research, 1983). The hurricane season begins on June 1 and continues through November 30. Storms of nontropical origins, such as frontal passages, local thunderstorms, and tornadoes, are more frequent and can occur year-round.

2.5 Regional Geology and Hydrogeology

Regional geology at MCB Camp Lejeune is discussed in the *MCB Camp Lejeune Master Project Plans* (CH2M HILL, 2005a), referred to herein as the Master Plans.

The land surface at MCB Camp Lejeune has been alternately exposed and submerged over time by water and marine deposits from an ancient inland sea. These deposits were laid down to form the weakly dissected alluvial plane. The deposits are mostly sands layered with clay and marine shells. Elevations range from 0 feet above sea level at the waterways to 72 feet above sea level between the New River and U.S. Route 17. MCB Camp Lejeune consists of both broad, level flatlands and gently rolling hills. Nearly 30 percent of the soils at MCB Camp Lejeune are considered hydric. Leon fine sand, Mukalee Loam, and Murville fine sand are the most common hydric soils. Baymeade fine sand, a nonhydric soil, is the

most prevalent soil type at the installation and encompasses 18 percent of the land (Department of the Navy, 2005).

A soil survey for Onslow County indicates that the Baymead Foreston Stallings soil association is predominant in the Camp Johnson portion of Camp Lejeune. This association is typically found on level to gently sloping areas and ranges from somewhat poorly to well-drained with loamy subsoil throughout. Four soil map units are mapped in the study area. They are: Baymeade-Urban Complex, 0 to 6 percent slopes, Baymeade fine sand 0 to 6 percent slopes, Wando fine sand 1 to 6 percent slopes, and Craven fine sandy loam, 4 to 8 percent slopes. The affected soil map units have not been classified either as hydric soils or prime farmland by the Natural Resources Conservation Service (MCB Camp Lejeune, 2002). Most soils within this area have been previously disturbed due to a history of intensive use.

From the regional geology, it can be inferred that the project site is underlain by the uppermost Undifferentiated Formation of Holocene and Pleistocene age sediments, which consists of mostly fine, loose- to medium-dense sands, with a lesser amount of silt and clay, and is present from land surface to depths of 20 feet to 30 feet below ground surface (bgs). Thin, discontinuous lenses of silt and clay may be regionally associated with the Belgrade Formation. The Belgrade Formation generally consists of mostly fine sands, silts, and clays with lesser amounts of shell fragments.

The upper portion of the River Bend Formation, which underlies the Quaternary-age sediments, is composed of sands, silts, shell and fossil fragments, and trace amounts of clay. The River Bend Formation overlies the Eocene Castle Hayne Formation. The Castle Hayne Formation consists of both poorly indurated and well-indurated biomicrite and biomicrudite limestone (Harris and Zullo, 1991). Thickness of the Castle Hayne Formation ranges between 150 feet and over 450 feet locally at MCB Camp Lejeune (Cardinell et al., 1993).

The surficial aquifer, Upper Castle Hayne Confining Unit, and Castle Hayne Aquifer at MCB Camp Lejeune have all been described (Cardinell et al., 1993). The surficial aquifer resides within the Undifferentiated Formation, and the Caste Hayne Aquifer resides locally within the River Bend Formation. The Belgrade Formation typically acts as a confining unit between the surficial and the Castle Hayne aquifers.

Surface water drainage in the project vicinity is carried by a dendritic system of small, permanent, and intermittent unnamed streams, with associated floodplains of various widths. These streams flow into Scales Creek, Northeast Creek, and New River. New River flows into the Atlantic Ocean via New River inlet (MCB Camp Lejeune, 2002).

2.6 Site UXO-04 Geology and Hydrogeology

The subsurface geology beneath Site UXO-04 consists of layered laterally-discontinuous fine grained sediments. Particle sizes noted from soil boring logs from monitoring well installation activities indicate sediments ranging from clay and silt to medium sand. Two generalized geologic cross-sections, **Figures 2-2 and 2-3,** were created from the lithology data collected at the site. The cross-sections suggest that the sediments (poor and well graded fine sand with occasional silt) screened by the intermediate wells are more uniformly distributed across the site.

Shallow wells were screened across the uppermost water table with screen intervals selected based upon groundwater levels encountered during drilling and sampling. Water levels collected from the surficial wells during the Phase I and Phase II field work on March 21, 2006, April 3, 2006 and September 5, 2007 (**Table 2-1)** suggest that groundwater is mounded near the center of the site around wells MR04-MW05 and MR04-MW07. The water table contours are shown in **Figures 2-4 and 2-5**. Groundwater flow within the shallow aquifer appears to be radially outwards from these two wells, MR04-MW05 and MR04-MW07, in the direction of the surface water bodies that surround the site. Gradients calculated from the surficial potentiometric surface range from 0.00002 ft/ft to 0.008 ft/ft.

SECTION 3

Field Investigation Activities

The ESI field activities were completed at Site UXO-04 in phases between November 2005 and October 2007. Phase I field activities were conducted from November 2005 through January 2007 and Phase II field activities were conducted from August through October 2007. All sample locations except the Phase II surface soil sample locations are shown in **Figure 3-1**. Details of the field activities are provided in the subsections below.

3.1 Site Preparation and Support

Site preparation for Phase I included vegetation removal and layout of a grid network for the DGM effort, a boundary survey to establish the site limits, and delivery and setup of the office, storage, and sanitation facilities. The initial site preparations were completed from November 2005 to February 2006. MEC avoidance was conducted throughout the Phase I field effort to ensure the safety of onsite workers who could potentially be exposed to munition hazards.

Phase II site preparation included additional land clearing in October 2007. The intrusive investigation concluded Munitions Response (MR) field procedures for MEC avoidance were not needed for Phase II or any further onsite activities.

3.1.1 MEC Avoidance

During Phase I field activities, potential MEC hazards were cleared as necessary in accordance with the Explosives Safety Submission (ESS) Waiver (CH2M HILL, 2006a). USA Environmental, Inc. of Oldsmar, FL, was subcontracted to supply trained and qualified UXO technicians and provided MEC escort and avoidance services to the surveying, vegetation clearing, and geophysical surveying subcontractors. The UXO technicians inspected the ground surface prior to vegetation clearing to ensure that no MEC would be encountered by the clearing equipment. The UXO technicians also conducted subsurface MEC avoidance at all utility locating, soil boring, and well installation locations. No MEC hazards were encountered and the summary reports are provided as **Appendix D**.

The intrusive investigation resulted in the conclusion that the site was not used as a grenade range and that the risk from potential MEC at the site was judged to be low, so MEC avoidance was not needed for Phase II activities or any further onsite activities.

3.1.2 Boundary Survey and Grid Layout

Lanier Surveying, a North Carolina licensed surveyor from Cedar Point, NC, was subcontracted to delineate the site boundaries during Phase I. The surveyor prominently marked the boundaries of the project area using flagging tape and wooden stakes and provided the survey results for incorporation into the CH2M HILL geographic information system (GIS). The site boundaries were estimated using maps provided by Naval Facilities Engineering Command (NAVFAC).

The surveyor also prepared the site for DGM during Phase I by establishing a network of 100-ft × 100-ft grids across the site. Wooden stakes were placed at each node of the grid network and were marked with an identifier that logically located that node within the grid network (e.g., A1, B4, CC89, etc.; or N1/E1, N123/E28, etc.).

During Phase II, surveying was also completed by Lanier Surveying in August 2007. CH2M HILL partitioned the site acreage into 100-ft X 200-ft decision units using the original grid node data developed during the Phase I DGM **(Figure 3-2)** for the intrusive investigation. Approximately 10 acres of the site was not investigated due to the area not being fit for development (coastal areas, wetlands, etc.).

3.1.3 Vegetation Clearing

During the site preparation for Phase I from December 2005 to February 2006, Timberline Environmental Services, a landscaping and brush clearing company, was subcontracted to clear any areas where brush and vegetative cover would have interfered with the use of DGM equipment. The undergrowth was cleared using a rubber-track Bobcat with a cutter/mulcher, as well as other conventional tools such as chainsaws and bush hogs. A Gyro-Trac cutter was also used at the site to help with the brush and tree clearing. Vegetation less than three inches in diameter was cut to within six inches of ground surface. Cut vegetation was mulched and left in place.

Wetlands and Woodlands Management, LLC of Wilmington, NC was subcontracted for additional vegetation removal during Phase II in October 2007. An FTX 440 Track Carrier was used to clear several decision units. Vegetation less than three inches in diameter was cut to within six inches of ground surface. Cut vegetation was mulched and left in place.

3.2 Digital Geophysical Mapping

DGM was preformed at Site UXO-04 to evaluate the nature, number, and density of anomalies that could potentially represent subsurface MEC, and provide geophysical data for the MR intrusive investigation. All DGM activities at the site were completed in the former Knox Trailer Park area of Site UXO-04 during Phase I from December 2005 through February 2006. The DGM was preformed by subcontractor NAEVA Geophysics, Inc. of Charlottesville, Virginia, with quality control (QC) being performed by both NAEVA and CH2M HILL's MR QC Geophysicist. A summary of the work performed is provided in the following subsections and a detailed report is provided in **Appendix B**.

3.2.1 Digital Geophysical Mapping Surveys

DGM activities at the site were performed using the EM61-MK2 towed array and two single-coil EM61-MK2 systems. The geophysical investigation took place in multiple phases from December 2005 to February 2006. Positioning for the array was provided through real-time kinematic (RTK) differential global positioning system (GPS). The single-coil EM61-MK2 systems were used in areas where vegetation (trees) prevented the use of a towed system and vegetation canopy prevented the use of GPS. Positioning for the single-coil system was performed using a fiducial method.

A total of 90.9 acres were geophysically surveyed at Site UXO-04 using a combination of a towed array EM61-MK2 system and two man-portable single-coil EM61-MK2 systems. The

areas of the site covered by the survey are shown in **Figure 3-3** and an operational grid key map showing the 100ft x 100ft grid system is shown in **Figure 3-4**. A total of 38 acres were geophysically surveyed in the non-wooded area comprising the former trailer park area. The remaining 53 acres were in wooded areas of the site.

Large gaps in the data in the trailer park area were a result of the presence of trailers and fenced-off yards where DGM surveys were not performed. Smaller gaps in the data are a result of trees, telephone poles, fences, and other cultural objects obstructing the path of the survey instruments.

3.2.2 Geophysical Proveout

Geophysical proveout (GPO) activities were performed in December 2005, as part of the process for validating the DGM systems utilized during the geophysical mapping effort. Two DGM systems were evaluated as part of the GPO as follows:

- **2-coil EM61 Towed Array** - The EM61 towed array used during the GPO system of two ½ meter (m) x 1 m EM61-MK2 coils linked to a RTK GPS for data positioning. The sensor height above the ground surface was tested at approximately 0.35 m (1.15 ft) above ground surface. The sensors are towed by an all-terrain vehicle
- **Single-coil Man-Portable EM61** - The single-coil man-portable EM61 that was tested was a standard ½ m x 1 m EM61-MK2 system linked to an RTK GPS for data positioning. The sensor height above the ground surface was tested at the standard height of approximately 0.41 m (1.35 ft).

The GPO report is included as **Appendix C**.

3.2.3 Data Processing

For preprocessing, raw data files had sensor offsets applied and were converted to ASCII format using Geomar Software's Multi61MK2 program. Data were then imported into Geosoft's Oasis Montaj where the following steps were performed:

- Conversion of geographic coordinates to projected state plane coordinates
- Evaluation of data coverage
- Evaluation of data density
- Application of auto leveling and instrument drift corrections
- Application of default lag correction
- Generation of preliminary contour map(s) from gridded data
- Generation of formatted ASCII file containing preprocessed data
- Generation of Planimetric Map for tracking survey progress

After completion of preprocessing, the data were further evaluated and processed to generate final data files. Final processing included the following steps:

- Evaluation and refinement of auto leveling and instrument drift corrections
- Evaluation and refinement of lag correction
- Additional digital filtering and enhancement, as necessary
- Generation of formatted ASCII file containing processed data

- Merging of final processed data into a master database containing all towed array data.
- Generation of final maps for each grid containing contoured, gridded data and target locations

Final processed data were submitted for each dataset. Targets were selected from the data in the master database and processed data files for individual 100-ft x 100-ft grids were subset from the master database. Final processed data for each grid with target selections and a final map were then submitted to CH2M HILL.

The UX-Detect module within Oasis Montaj identifies peak amplitude responses of the frequency associated with, but not limited to, MEC items. Geophysical anomalies may generate multiple target designations depending on individual signature characteristics. Each of the geophysical anomalies selected by Geosoft as a target was analyzed by trained geophysicists, and evaluated as to its validity and position. Targets found to be invalid or incorrectly located were removed or adjusted. Additionally, geophysical anomalies that were not selected by the UX-Detect module, yet deemed to represent a potential MEC target, were manually selected. Target selection was performed on final processed data for the second time-gate of the bottom coil of the EM61-MK2.

3.2.4 Quality Control

An extensive QC program was applied to the DGM operations at the site. **Figure 3-5** shows an overall chart of the QC steps, and descriptions are provided below.

Each of the geophysical systems was field tested as specified in the Work Plan (CH2M HILL, 2005b). A summary of the tests performed is presented in **Table 3-1**. Both the DGM subcontractor and CH2M HILL performed QC of geophysical data and data deliverables at each step of the processing path.

All tests outlined in the work plan were performed on the DGM instruments at the appropriate intervals (i.e. daily, weekly, at start of project, etc.) Results were checked by NAEVA's QC geophysicist prior to delivery to CH2M HILL and subsequently checked by the CH2M HILL QC Geophysicist. If necessary, corrective actions were taken as appropriate to ensure that all instruments functioned as required

The following items were among the QC checks performed on the field forms:

- Appropriate fields were completed
- Field entries were appropriate for work performed
- Data required for geophysical data processors was entered
- General editorial review (spelling, dates, etc.)

The following items were among the QC checks performed (as applicable to the particular data set) on the "Pre-processed Data":

- Data translated from local coordinates into the State Plane system
- Coordinates were correct (grids fall in correct locations when loaded into GIS)
- Line gaps were accounted for

- Crosstrack distances between lines were acceptable (per Data Quality Objectives(DQO) presented in the DGM Work Plan (CH2M HILL, 2005b))
- Downline data density was acceptable
- Appropriate file headers were attached
- Files contained appropriate grids

The following items were among the QC checks performed (as applicable to the particular data set) on the "Processed Data":

- Lag correction was appropriate
- De-spiking was appropriate
- Leveling was appropriate
- Filtering performed was appropriate
- Line breaking was appropriate
- Anomaly selections were appropriate

A total of 46 QC items were seeded in the project area. The QC items tested the DGM subcontractor's ability to meet the project data quality objectives (DQOs). The seed items were painted blue and tagged with a non-biodegradable label identifying the items as inert and providing a contract reference, a point of contact address, phone number, and a target identifier. CH2M HILL personnel performed seeding using hand tools. The seed locations were checked by a UXO technician using a hand-held analog geophysical instrument to confirm that no existing geophysical anomalies were present at the seed location. Once placed, the locations of all seeded items were surveyed using an RTK GPS.

The QC items consisted of MK2 hand grenade simulates, such as those planted in the GPO plot, and were generally buried at approximately 75% of their maximum detectable depths. All of the QC items were detected as a result of the DGM surveys.

3.3 MR Intrusive Investigation Field Activities

Based on the results of the DGM effort, a MR intrusive investigation was conducted during Phase I to evaluate the nature and density of MEC present in the former Knox Trailer Park area and to evaluate the suspected use of the site as a hand grenade range. As discussed by and agreed to by the partnering team, the intrusive investigation was conducted over 10 percent of the 38-acre non-wooded area that was geophysically surveyed within the former Knox Trailer Park (see **Figure 3-6).** The intrusive investigation was completed in January 2007. USA Environmental, Inc. of Oldsmar, FL, was subcontracted to provide UXO-trained personnel for the performance of all intrusive activities, including manual excavation at geophysical anomaly locations and the identification of potential MEC.

The intrusive investigation was conducted by reacquiring the geophysical anomalies that were identified as possibly representing subsurface MEC within 17 grids (**Figure 3-6)**. The 17 grids where anomaly reacquisition and intrusive investigation were performed were systematically selected to provide coverage across the entire 38 acre non-wooded area. These geophysical anomalies were then manually excavated to determine the source of each anomaly. A total of 1,811 geophysical anomalies in the 17 grids were intrusively

investigated. Excavation was not performed in paved roads that pass through the selected grids.

All geophysical anomalies identified for excavation were reacquired by a member of the intrusive investigation team to an exact location using a RTK GPS and a handheld magnetometer. After locating an approximate anomaly position with a GPS, a magnetometer was used to confirm the exact position of the anomaly. If an anomaly was not immediately intrusively investigated, the location was flagged using a polyvinyl chloride (PVC) flag with a unique identifier number recorded in permanent ink. Reacquired anomaly locations were flagged one foot north of the actual field location.

Excavation of individual DGM anomalies was performed by qualified UXO technicians using hand-excavation tools. The UXO team performing this work was composed of up to five UXO Technicians II or I who are supervised by a UXO Technician III. Details associated with this operation are included in Appendix D of the *MEC Intrusive Investigation Work Plan* (CH2M HILL, 2006b).

Small hand tools, such as shovels, spades, trowels, and pry bars, were used to access potential MEC/material potentially presenting an explosive hazard (MPPEH). The following process was used for anomaly excavation:

- The UXO technician investigated within a 1-meter radius of the flagged anomaly with an appropriate geophysical instrument.
- Until identified otherwise, the anomaly was assumed to be MEC. Excavation was initiated adjacent to the subsurface anomaly. The excavation continued until the excavated area reached a depth below the top of the anomaly as determined by frequent inspection with an appropriate geophysical instrument.
- Using progressively smaller and more delicate tools to remove the soil carefully, the excavation team expanded the sidewall to expose the metallic item for inspection and identification without moving or disturbing the item.
- Once the item was exposed for inspection, the excavation team determined if it was potential MEC.
- If the item was determined to be MEC, MCB Camp Lejeune EOD was notified and was responsible for handling and demolition of the MEC item.
- If the item was not MEC, it was removed and the area rechecked with the appropriate geophysical instrument to ensure that a MEC item was not hidden beneath the removed item. The excavation team then annotated the results of the excavation on the dig sheet, backfilled the hole, and moved on to the next marked subsurface anomaly.

Results of the intrusive investigation are provided in **Appendix D**.

3.3.1 Removal Verification

Following completion of all intrusive activities within a grid, the UXO QC Specialist selected 10 percent of the anomaly locations at random and checked them with a handheld

magnetometer to ensure that the geophysical anomalies were correctly located and that the source of the anomaly was removed.

3.3.2 Scrap and Munitions Debris Disposition

No MEC was encountered during the MR intrusive investigation, other than the flare previously mentioned and it was disposed of by the MCB Camp Lejeune Explosive Ordnance Disposal team. However, any metallic debris encountered not considered MEC was collected and stockpiled in a central location on site and segregated as follows:

Group 1 – included property that previously contained explosives or that does not contain items of a dangerous nature and can be certified inert and or free of explosives or other dangerous materials

Group 1a – included firing range expended small arms cartridges and inert metals gleaned from cleanup

Group 1b – included any certifiable material or items not meeting the criteria in 1a above. A determination was made as to whether the material or item requires demilitarization. Damage sustained does not necessarily constitute demilitarization.

Group 2 – included inherently dangerous items that may potentially contain MEC and cannot be certified as inert.

The Senior UXO Supervisor confirmed that non-munitions-related scrap and munitions debris (MD) was properly inspected in accordance with Department of Defense (DoD) standards, including DoD Instruction 4140.62, *Management and Disposition of MPPEH* (DoD, 2004). A UXO Technician III inspected the MD to assess it for explosives residue and determine whether it was safe to move. When, the MD was found to be free of explosive hazards, the UXO Tech III certified it as such by signing DoD Form 1348-1A. A different UXO Tech III re-inspected the MD to verify that it was free of explosive hazards, also signing DoD Form 1348-1A.

Once all intrusive activity was finished and all required certifications verifications completed, the local Defense Reutilization and Marketing Office (DRMO) was contacted to dispose of scrap metal.

3.4 Environmental Investigation Activities

In order to evaluate the presence and nature of HTW contamination that may exist at Site UXO-04 an investigation of soil, groundwater, surface water and sediment was conducted in two phases. The presence and nature of HTW contamination was found to be minimal and assisted in the determination of the site being fit for development.

During Phase I, groundwater monitoring wells were installed. Phase I and Phase II both included environmental sampling of surface and subsurface soil, groundwater, surface water and sediment. The extent and sample locations of the Phase II environmental sampling was based on the results of the Phase I environmental investigation.

3.4.1 Surface Soil Sampling

During Phase I, four surface soil samples (MR04-SS02, MR04-SS04, MR04-SS08, and MR04-SS10) were collected from monitoring well locations MR04-MW03, MR04-MW05, MR04-MW11, and MR04-MW14, respectively (**Figure 3-1**) to evaluate the presence and nature of HTW contamination**.** The surface soil samples were collected from 0 to 2 ft bgs using Direct Push Technology (DPT). The direct push work for Phase I was subcontracted to North Carolina licensed well driller, Parratt-Wolff, Inc., out of Hillsborough, North Carolina. Samples were submitted to an off-site lab, GPL Laboratories, Inc. of Frederick, Maryland, and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), TCL pesticides/polychlorinated biphenyls (PCBs), Target Analyte List (TAL) metals and cyanide, explosive residues, perchlorate, total petroleum hydrocarbons (TPH), total organic carbon (TOC), and total organic halogens (TOX).

Based on evaluation of the Phase I surface soil sample results, surface soil samples were collected from across Site UXO-04 using a modified decision unit/multi-incremental sampling technique during Phase II. A systematic sampling approach was selected to provide a representative sample of the average chemical concentrations within the surface soil of a decision unit. Approximately 10 acres of the 144 acre site was not investigated due to the area not being fit for development (coastal areas, wetlands, etc.). The remaining 134 acres were divided into 100-ft x 200-ft decision units (see **Figure 3-2**) to aid in investigative efforts.

A total of 540 surface soil samples were collected from the over 260 decision units (MR04-A01-0-1-07C to MR04-P04-0-1-07C, see **Figure 3-2**). Five incremental samples were collected with a hand trowel from 0-1 ft bgs within each decision unit and homogenized in a sterile pan into a single sample **(Figure 3-7)**. The samples were submitted to an off-site lab, Test America laboratories, and analyzed for TCL SVOCs, TCL pesticides/PCBs, TAL metals and cyanide, explosives residues, and perchlorate. To ensure all VOCs were captured a single surface soil sample was collected from the center of each decision unit for TCL VOCs analysis.

The results of both the Phase I and II analytical data were validated by a third-party validator under subcontract to CH2M HILL. Data validation reports are provided in **Appendix G**.

3.4.2 Subsurface Soil Sampling

Ten soil borings were installed using DPT during Phase I and were sampled continuously for lithological characterization and field screening, allowing for a discrete soil sample to be collected for offsite laboratory analysis. Continuous cores were advanced using a 4-foot Geoprobe® Macrocore sampler to a depth just below the water table (ranging from 7.4 to 18.5 ft bgs). Soil boring logs are provided in **Appendix E**. The direct push work for Phase I of the ESI was subcontracted to North Carolina licensed well driller, Parratt-Wolff, Inc., out of Hillsborough, North Carolina.

Field screening of the soil samples was performed using a TVA-100 PID/FID (photo-ionization detector/flame ionization detector). Six subsurface soil samples, MR04-SS01, MR04-SS03, MR04-SS05, MR04-SS06, MR04-SS07 and MR04-SS09 were collected above the

water table, based upon field screening, at each of the monitoring well locations (MR04-MW01, MR04-MW04, MR04-MW07, MR04-MW08, MR04-MW10 and MR04-MW13, respectively) shown in **Figure 3-1.** After sampling was complete, monitoring wells were installed in the DPT boreholes (see Section 3.4.3). Samples were submitted to GPL Laboratories, Inc. in Frederick, Maryland, and analyzed for the following constituents: TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide, explosive residues, perchlorate, TPH, TOC and TOX.

During Phase II, twenty-four subsurface soil samples (MR04-IS11 through MR04-IS34) were collected above the water table at locations shown in **Figure 3-1**. The same sampling procedures were followed in Phase II as in Phase I. After sampling was complete, DPT boreholes were abandoned by grouting from the bottom of the boring to the ground surface.

Soil boring logs are provided in **Appendix E**. The direct push work for Phase II of the ESI was subcontracted to North Carolina licensed well driller, American Environmental Drilling, Inc., of Aberdeen, North Carolina.

Field screening of the soil samples was performed using a TVA-100 PID/FID. Samples were submitted to Test America Laboratories Inc. and analyzed for the following constituents: TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide, explosive residues, and perchlorate.

The DPT sampling method used during both Phase I and II was an open core barrel and piston sampling device along with disposable acetate or Teflon liners for the collection of soil samples. Down-hole sampling equipment was decontaminated and a new liner was used in collecting each continuous sample from the ground surface down to the bottom of the borehole.

The results of both the Phase I and II analytical data were validated by a third-party validator under subcontract to CH2M HILL. Data validation reports are provided in **Appendix G**.

3.4.3 Monitoring Well Installation and Development

During Phase I, fifteen groundwater monitoring wells were installed at the site. Ten surficial aquifer *Type II* wells were installed to depths ranging from 15 to 27 ft deep and five intermediate *Type III* wells were paired with shallow wells and installed to depths ranging from 33 and 50 ft depending upon the depth of the Upper Castle Hayne Aquifer Unit. **Table 2-1** contains complete well construction information. **Figure 3-1** shows the surveyed well locations for the surficial and intermediate wells. The fifteen monitoring wells (MR04-MW01 through MR04-MW15) were installed by Parratt-Wolff, Inc. under the direct supervision of a CH2M HILL hydrogeologist.

During the installation of the wells, the CH2M HILL hydrogeologist observed and recorded soil descriptions that included grain size, color, moisture content, consistency, soil structure, mineralogy, and other relevant information. The wells were drilled using both hollow-stem auger and mud rotary drilling techniques. A TVA-100 FID/PID was used for VOC air monitoring at well locations as a health and safety precaution. *Type III* monitoring wells were constructed as "double-cased" by first grouting a 6-inch ID Sch 40 PVC pipe within the well borehole to isolate the depth of the surficial aquifer prior to advancing the borehole

through the surface casing to the target depth and installing the well. The following five wells were double-cased: MR04-MW02, MR04-MW06, MR04-MW09, MR04-MW12, and MR04-MW15.

The placement of the well screens varied based upon the observations of the CH2M HILL hydrogeologist. Each monitoring well was constructed with 2-inch nominal-diameter Schedule 40 PVC screen and riser. Surficial monitoring well screens were 10 feet in length to capture changing levels in the water table, while the intermediate monitoring wells' screens were 5 feet in length. All well screens were machine slotted to 0.010-inch. A silica filter pack was placed around the annular space of the well screen from the bottom of the boring extending to a depth of 2 ft above the top of the screen. A 4-ft bentonite layer was placed above the top of the sand pack. After the bentonite had been hydrated (minimum of 30 minutes), a cement-bentonite grout was placed in the remaining annular space. The monitoring wells were completed with either stick-up protective covers and concrete pads with bollards or flush man-hole covers with concrete pads. A locking watertight cap was placed on the PVC pipe and the wells were clearly marked. Well completion diagrams and well completion records can be found in **Appendix E**.

Monitoring wells were developed using a submersible pump. At least three well volumes of water were removed, in addition to the amount of water added during the installation process. Development continued until the water cleared or until 1 hour of development had passed, whichever came first. Development information, including turbidity, pH, specific conductivity, and temperature, was recorded on the well development sheets found in **Appendix F**.

3.4.4 Groundwater Sampling

Once the fifteen new monitoring wells were installed and developed during Phase I, and before purging and sampling was performed, a complete round of water-level measurements was taken and is shown in **Table 2-1**. Water-level measurements were converted to water-level elevations using the top-of-casing elevation survey data. This data was used to estimate the general groundwater flow direction in April 2006 at the former Knox Trailer Park site (**Figure 2-4**).

Phase I included one round of groundwater samples (MR04-MW01-06A through MR04-MW15-06A). The groundwater samples were analyzed by GPL Laboratories for the following analyses: TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, total and filtered TAL metals, total cyanide, explosive residues, perchlorate, TPH, filtered TOC, and TOX.

A complete round of water-level measurements were also collected prior to purging and sampling for Phase II and is shown in **Table 2-1**. Water-level measurements were converted to water-level elevations using the top-of-casing elevation survey data. This data was used to estimate the general groundwater flow direction in September 2007 at the former Knox Trailer Park site (**Figure 2-5**).

Phase II included one round of groundwater samples (MR04-GW01-07C through MR04-GW15-07C). The groundwater samples were analyzed by Test America Laboratories Inc. for the following analyses: TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, total and filtered TAL metals, total cyanide and explosive residues.

The resulting analytical data for both Phase I and II were validated by a third-party validator under subcontract to CH2M HILL. Data validation reports are provided in **Appendix G**.

All groundwater samples were collected using a peristaltic pump with dedicated poly tubing and low-flow purging and sampling techniques. Water quality parameters (specific conductance, pH, turbidity, temperature, dissolved oxygen (DO), and oxidation reduction potential (ORP) were measured and recorded before sampling using a Horiba U-22® water quality meter. Field parameters are shown in **Table 3-2**. Groundwater sampling sheets for both Phase I and Phase II are provided in **Appendix F**. All groundwater samples were collected after all field parameters had become stable over three successive readings AND at least one well volume had been purged, or (2) at least three well volumes had been purged from the well. Parameters were considered stabilized over three successive readings when measurements agreed as follows:

a) pH within 0.1 pH units
b) Temperature measurements within 10%
c) Conductivity within 3%
d) ORP within 10 mV
e) DO within 10%
f) Turbidity minimized to the extent practical for the well

Prior to sample collection, the Horiba U-22® was disconnected from the peristaltic pump so that the sample was collected from the tubing section before the purge water contacted the flow through cell of the water quality meter. New tubing was used for the sampling of each well.

Water level elevation, measuring point elevation, depth to water, sampling depth, and total well depth measurements were recorded in the log book.

All groundwater samples were collected by placing the sample tubing intake in the screened interval. For the collection of water samples for VOC analysis, the pre-preserved bottles were filled completely so as to minimize aeration, and capped to prevent the entrapment of any air bubbles in the vial. VOCs were collected using the straw method where the tubing was disconnected from the peristaltic pump and the top of the tubing covered to hold water in place. The tubing was then removed from the monitoring well and the water within the tubing was slowly back-filled into each of the VOC bottles. Following collection of the VOC samples, remaining analysis was collected through the peristaltic pump.

3.4.5 Surface Water and Sediment Sampling

During Phase I, ten sediment samples (MR04-SD01-06A through MR04-SD10-06A) and ten surface water samples (MR04-SW01-06A through MR04-SW10-06A) were collected at locations shown in **Figure 3-1**. During Phase II, seven sediment samples (MR04-SD01-07C through MR04-SD06-07C, MR04-SD08-07C) and seven surface water samples (MR04-SW01-07C through MR04-SW06-07C, MR04-SW08-07C) were collected at locations shown in **Figure 3-1**. During Phase II, GPS was used to relocate the sediment and surface water sampling locations from Phase I. Samples from both sampling phases were collected from

Northeast Creek, from the unnamed tributary along the eastern site boundary, and from unnamed drainage features that discharge into Northeast Creek and the unnamed tributary.

All surface water was sampled as grab samples. Sediment samples were also sampled as grab samples by advancing a hand auger approximately 6-12 inches into the sediment. Samples were collected from downstream to upstream to avoid cross-contamination by sediment suspension.

Samples were collected and submitted to GPL Laboratories for Phase I and Test America Laboratories Inc. during Phase II for the following analyses: TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide (and filtered TAL metals for surface water), explosive residues, perchlorate, TPH*, TOC* (filtered TOC for surface water), TOX*, grain size* (for sediment), and total dissolved solids* (for surface water) (* indicates analysis run on only Phase I samples).

All of the resulting analytical data were validated by a third-party validator under subcontract to CH2M HILL. Data validation reports are provided in **Appendix G**.

3.4.6 Quality Assurance/Quality Control Sampling

Appropriate quality assurance/quality control (QA/QC) sampling was performed in accordance with Navy Comprehensive Long-Term Environmental Action Navy (CLEAN) and CH2M HILL protocols, including trip blanks, field blanks, equipment blanks, duplicates, and matrix spike/matrix spike duplicates (MS/MSDs). Required QA/QC samples and the frequency of collection are shown in **Table 3-3.**

3.5 Investigation Derived Waste Management

Investigation derived waste (IDW) generated during Phase I consisted of drill cuttings from the DPT soil borings and permanent monitoring well installations, purge water (from well development and groundwater sampling), decontamination fluids, disposable equipment, and personnel protective equipment (PPE). Soil IDW generated during monitoring well installation and DPT soil sampling of Phase I was containerized in 55-gallon drums and staged near the drilling activities. Aqueous IDW generated during Phase I was containerized in a poly tank staged at the site. The IDW generated during Phase I was identified as non-hazardous based on the results of waste characterization and properly disposed of within 90 days of generation by the Base Remedial Action Contractor (RAC), Shaw Environmental and Infrastructure. Disposable equipment, including PPE, poly sheeting, paper towels, and aluminum foil, was disposed of in separate 55-gallon drums as solid waste.

IDW generated during Phase II included drill cuttings from the DPT soil borings, purge water (from groundwater sampling), decontamination fluids, disposable equipment, and PPE. Results from the waste characterization determined that all IDW was non-hazardous. The solid wastes were disposed of on-site. The purge water was disposed of at the water treatment facility run by RHEA, Engineering and Consultants, Inc. located at Lot 203 of MCB Camp Lejeune. DPT subcontractor, American Environmental Drilling, Inc., transported the IDW from the site to the Lot 203. Disposable equipment, including PPE, poly sheeting, paper towels, and aluminum foil, was disposed of on-site.

3.6 Site Survey

During Phase I, the surveying subcontractor, Lanier Surveying, surveyed horizontal coordinates, ground level elevations, and top-of-casing elevations for the fifteen newly-installed monitoring wells located on the project site. The elevation point for the monitoring wells was established at the top of the PVC well casing, with a permanent mark designating the elevation point established on each well. In addition, the elevation of the ground surface directly adjacent to each well was surveyed. The subcontractor also surveyed horizontal coordinates and ground level elevations at the ten soil sampling locations and the ten surface water/sediment sampling locations of Phase I. Top-of-casing and ground surface elevations were read to the nearest 0.01 feet (0.1 feet for unpaved ground surface or water surface elevations), and tied to the nearest North American Datum of 1988 (NAVD 88) datum bench mark. Horizontal control will be based on the metric system and referenced to the North American Datum of 1983 (NAD83) and the Universal Transverse Mercator Grid System.

During Phase II, Lanier Surveying surveyed horizontal and vertical coordinates for sample locations as well as the Easting and Northings (X,Y) for all grid corners. All horizontal points were tied to the nearest NAD83 and the Universal Transverse Mercator Grid System and vertical points were to the nearest 0.01 feet (0.1 feet for unpaved ground surface) and tied to the nearest NAVD 88 datum bench mark.

Following completion of the monitoring well and sample location survey for both phases, the subcontractors provided CH2M HILL with the survey results in electronic format appropriate for incorporation into the CH2M HILL Camp Lejeune GIS.

SECTION 4

Investigation Results

Results of the MR intrusive investigation and Phase I and II environmental sampling including surface and subsurface soil, groundwater, surface water, and sediment are presented below.

4.1 MR Investigation Results

4.1.1 Digital Geophysical Mapping

Geophysical Proveout

A GPO was performed at the site to validate the towed array EM61-MK2 and the two man-portable single-coil systems for use for DGM surveys across the site. Each system passed the project DQOs as established in the GPO Work Plan, which was presented as an appendix to the Work Plan for the ESI (CH2M HILL, 2005b). A full report detailing the GPO results is presented as **Appendix C**.

Digital Geophysical Mapping Surveys

The DGM results indicated a high density of geophysical anomalies due to metallic items in the former Knox Trailer Park area of the site. A mosaic showing the DGM results is presented as **Figure 4-1** and as Plate 1 in **Appendix B**. An example of a grid in the high density area is presented as **Figure 4-2**. Detailed maps for each of the operational grids surveyed were provided to CH2M HILL in electronic form.

Geophysical anomalies that represent potential subsurface MEC items were identified based on their geophysical signatures.[1] Geophysical anomalies with geophysical signatures similar to those of the target MEC item, an MKII hand grenade, were selected from the DGM results and their coordinates recorded. Over 50,000 geophysical anomalies representing subsurface metal were selected from the data as representing potential subsurface MEC items. A total of 1,811 geophysical anomalies in the 17 grids were identified as representing potential subsurface MEC. The concentration of targeted geophysical anomalies is significantly reduced in the southwest and southeast sections of the area of inspection. Results of DGM surveys in the wooded areas to the northeast of the trailer park indicate that there may be fewer geophysical anomalies in this area as well. Detailed results are presented in **Appendix B**.

4.1.2 MR Intrusive Investigation

Out of a total of 1,811 geophysical anomalies that were intrusively investigated in 17 grids, only one munitions-related item was discovered. The item was determined to be a

[1] ***It is important to note that it is not possible to determine from the DGM results whether the geophysical anomalies actually represent MEC or MD. Non-munitions related metallic debris can present geophysical signatures that are similar to those of the target MEC item, and these signatures vary with depth, orientation, size, and mass of the metallic item generating the anomaly***

discarded military munition (DMM) identified as "Signal, Illumination, Ground: Red Star Parachute M131" in its original shipping container. This item was buried in a horizontal configuration at an approximate depth of six inches and had never been fired. Since the DMM was not fired it is assumed to be unrelated to any possible past range use at Site UXO-04. No MD or other munitions-related material was found, and the sources of all other geophysical anomalies were found to be scrap-metal. See **Appendix D** for the results of the intrusive investigation.

4.2 Environmental Investigation Results

The following subsections present and summarize the laboratory data from Phase I and Phase II analysis of soil, groundwater, surface water, and sediment samples collected at the Site UXO-04. Sections 5 and 6 evaluate these analytical data from human health and ecological viewpoints. All raw analytical data can be found in **Appendix J**.

4.2.1 Data Validation

All laboratory analytical data were validated by a third-party validator under subcontract to CH2M HILL. The data validation reports are provided in **Appendix G**.

The data validation qualifiers, or flags, used for the data are the following:

- A "J" flag indicates that the analyte is present but the value is estimated.
- An "L" or "J-" flag indicates that the analyte is present, but the reported value may be biased low and the actual value is expected to be higher.
- An "R" flag indicates an unusable result. The analyte may or may not have been present and the result was rejected.
- A "U" flag indicates that the analyte was not detected and the associated value indicates the approximate sample concentration necessary to be detected.
- A "UJ" flag indicate the analyte is not detected and the quantitation limit is imprecise
- A "J+" flag indicates that the analyte is present, but the reported value may be biased high and the actual value is expected to be lower

Potential Non-Site-Related Analytical Results

Some of the organic (e.g., polycyclic aromatic hydrocarbons [PAHs]) and metal constituents detected in soil and/or groundwater may be attributed to non-site-related conditions or sources such as laboratory contaminants, anthropogenic non-site release sources, and naturally occurring (background) concentrations of constituents.

Laboratory and Sample Blank Contamination

In some instances, constituents detected in samples may have been introduced during field sampling, transportation to the analytical laboratory, or during laboratory procedures. A variety of blank samples were analyzed and used in the QA/QC process to determine which of the constituents may or may not be attributed to the field sample.

Typically, a field blank is collected to account for ambient conditions during sample collection. An equipment/rinsate blank is collected to determine if the equipment used to collect the samples (e.g., augers, bailers, and sample containers) was adequately clean. Additionally, the laboratory analyzes a method blank in each batch of 20 samples to verify instrument cleanliness and function. Common phthalate compounds can be introduced during the analytical process and are often considered laboratory contaminants.

Background Data

To identify constituents present in soil and groundwater reflective of a potential site-related release, naturally occurring and anthropogenic compounds (metals, pesticides, and PAHs) detected in soil and groundwater were compared to soil and groundwater two times the mean established for MCB Camp Lejeune (Baker Environmental, Inc., 2001).

4.2.2 Soil Analytical Data Summary

Phase I soil sampling consisted of ten sample locations with surface soil samples from 0-2 ft bgs at four locations and subsurface samples at depths ranging from 0-4 ft bgs at four sampling locations, 4-6 ft bgs at MR04-SS07, and 8-12 ft bgs at MR04-SS03. Phase I surface soil was screened against the North Carolina Soil Screening Levels (NC SSLs) and MCB Camp Lejeune background surface soil concentrations (two times the mean background surface soil concentration) which were available for inorganic constituents only (Baker Environmental, Inc., 2001). The methodology for calculating SSLs for contaminant migration to groundwater was developed to identify chemical concentrations in soil that have the potential to migrate and contaminate groundwater. SSLs are back calculated from acceptable groundwater concentrations and take into consideration fate and transport parameters (NCDENR, 2000). Phase I surface soil exceedances are shown in **Figure 4-3**. Only the Phase I surface soil samples exceeding the NC SSLs are discussed below.

Phase II surface soil sampling consisted of one composite soil sample and one grab soil sample (for VOC analysis only) taken at each of the over 260 decision units. For the Phase II surface soil results, the results were screened by the adjusted USEPA Region IX (Preliminary Remediation Goal) PRG Tables (USEPA, 2004b) and MCB Camp Lejeune background surface soil concentrations (two times the mean background surface soil concentration) which were available for inorganic constituents only (Baker Environmental, Inc., 2001). The PRGs are adjusted for noncarcinogenic effects, the value presented in the PRG table for a hazard quotient (HQ) of 1.0 was divided by 10 (i.e., HQ = 0.1) to conservatively account for exposure to multiple constituents. PRGs based on carcinogenic effects were used as presented in the PRG table, and are based on a carcinogenic risk of 1×10^{-6}. Only the samples exceeding the adjusted PRGs are discussed below. The detected concentrations of specific analytes from both phases are summarized in **Tables 4-1** to **4-3**.

Surface Soil

Volatile Organic Compounds: No VOCs exceeded the NC SSLs during Phase I. No VOCs exceeded Region IX Residential PRGs during Phase II.

Semi-volatile Organic Compounds: No SVOCs exceeded the NC SSLs during Phase I sampling.

During the Phase II surface soil sampling five SVOCs exceeded Region IX Residential PRGs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene. Benzo(a)anthracene's PRG is 620 µg/kg and was exceeded at five sample locations including MR04-D17 at 740 µg/kg, MR04-E17 at 2,800 µg/kg, MR04-F16 at 850 µg/kg, MR04-G16 at 710 µg/kg and MR04-K15 at 760 µg/kg. Benzo(a)pyrene detections exceeded the PRG of 62 µg/kg, at 43 sample locations out of the over 260 sample locations. Benzo(b)fluoranthene and dibenz(a,h)anthracene's PRGs of 620 µg/kg and 62 µg/kg, respectively, were exceeded at six total locations and at four of the same grids, MR04-D17 at 1,100 µg/kg and 130 µg/kg, MR04-E17 at 5,200 µg/kg and 550 µg/kg, MR04-F16 at 1,300 µg/kg and 150 µg/kg, and MR04-J18 at 720 µg/kg and 64 µg/kg, respectively. Benzo(b)fluoranthene also exceeded screening criteria at sample locations MR04-G23 at 700 µg/kg and MR04-K15 at 1,400 µg/kg. Dibenz(a,h)anthracene exceeded screening criteria at sample locations MR04-G16 at 73 µg/kg and MR04-H17 at 100 µg/kg. Indeno(1,2,3-cd)pyrene exceeded it's PRG of 620 µg/kg at sample locations MR04-E17 at 1,800 µg/kg.

Grids MR04-D17, MR04-E17 and MR04-F16, all located within the former Knox Trailer Park and include roads, exceeded all five SVOC's PRGs and grid MR04-E17 detected the maximum concentrations of all five SVOCs.

With the exception of MR04-F04 and MR04-G08 all the SVOC exceedances were located within the boundaries of the Knox Trailer Park. No SVOCs exceeded the NC SSL during Phase I. However, Phase I surface soil sample locations were located on the outer boundary or outside of the former Knox Trailer Park boundaries so it is consistent with the Phase II surface soil sampling.

Pesticides/Polychlorinated Biphenyls: During the Phase I surface soil sampling, dieldrin was the only pesticide or PCB to exceed the NC SSLs. Dieldrin exceeded its NC SSL of 1.13 µg/kg at sample locations MR04-SS02 at 7.4 µg/kg and MR04-SS04 at 1.2 µg/kg.

During Phase II, dieldrin was the only pesticide or PCB to exceed the Region IX Residential PRGs. Dieldrin exceeded it's PRG of 30 µg/kg at 10 surface soil sample locations including MR04-B01, MR04-C10, MR04-C15, MR04-E01, MR04-F01, MR04-H02, MR04-H07, MR04-J17, MR04-K19, and MR04-K20. The maximum concentration of dieldrin, 290 µg/kg, was found at MR04-H02.

Of the ten dieldrin exceedances from both Phase I and II, six are located in the northern portion of Site UXO-04.

Explosives Residues: Nitrobenzene was the only explosive residual detected during Phase I. The maximum concentration of 74 µg/kg was found in surface soil sample MR04-SS08. Phase II surface soil sampling detected three explosive residues 1,3,5-trinitrobenzene, 4-amino-2,6-dinitrotoluene, and 3-nitrotoluene. No exceedances of the screening criteria occurred.

Total Metals: During Phase I, chromium and mercury were the only metals to exceed NC SSLs. Chromium exceeded both the background level of 6.05 mg/kg and NC SSL of 27.2 mg/kg at MR04-SS08 with a concentration of 28.7 mg/kg. Mercury exceeded its NC SSL of 0.0154 mg/kg at all the sample locations however the background concentration, 0.081

mg/kg was not exceeded. The maximum concentration was located at MR04-SS04 at 0.031 mg/kg.

During Phase II, aluminum, arsenic, iron, and vanadium all exceeded their Region IX Residential PRGs. Aluminum exceeded both the PRG of 7,600 mg/kg and base background of 5,487 mg/kg at one sample location, MR04-D10 at 8,660 mg/kg. Arsenic exceeded the PRG of 0.39 mg/kg and base background of 0.626 mg/kg at all sample locations except ten, MR04-A05, MR04-B04, MR04-C09, MR04-G07, MR04-H04, MR04-I09, MR04-J06, MR04-J08, MR04-N03, and MR04-O07 with the maximum concentration detected at MR04-K15 of 14.2 mg/kg. Iron exceeded it's PRG of 2,300 mg/kg and the base background of 3,245 at over 90 sample locations with the maximum concentration of 10,800 mg/kg located at MR04-K01. Vanadium exceeded it's PRG of 7.8 mg/kg and base background 8.9 mg/kg at over 85 sample locations with a maximum concentration of 28.6 mg/kg at MR04-K19.

There was a cluster of exceedances of iron and vanadium in the northwest corner and in the southern center section of Site UXO-04. No other obvious trends in arsenic, iron or vanadium exceedances were observed.

Wet Chemistry: TOC and pH were identified in surface soil sample MR04-SS04 at 21,000 mg/kg and 6.2 respectively. Phase II surface soil was analyzed for percolate and no detections occurred.

Total Petroleum Hydrocarbons: Phase I TPH analysis detected diesel range organics (DRO) at all four surface soil boring locations while gasoline range organics (GRO) were detected at two of the four locations. The highest detected concentration in surface soils of TPH-DRO was 14.0 mg/kg and from TPH-DRO is 0.12 mg/kg were both found in MR04-SS02-0-2.

Phase II surface soil was not analyzed for TPH.

Subsurface Soil

Phase I subsurface soil samples included six samples with depths ranging from 0-4 ft bgs at four sampling locations, 4-6 ft bgs at MR04-SS07, and 8-12 ft bgs at MR04-SS03. Phase II included twenty-four subsurface soil samples with depths shown in **Table 4-3**. All subsurface soil results were screened against the NC SSL and MCB Camp Lejeune background surface soil concentrations (two times the mean background surface soil concentration) which were available for inorganic constituents only (Baker Environmental, Inc., 2001). Only the samples exceeding the NC SSLs are discussed below. Exceedances of the NC SSL are shown in **Figure 4-4**.

Volatile Organic Compounds: No VOCs were detected in subsurface soils during Phase I. No VOCs exceeded NC SSLs during Phase II.

Semi-volatile Organic Compounds: No SVOCs exceeded NC SSLs during Phase I or II.
Pesticides/Polychlorinated Biphenyls: During Phase I, dieldrin was the only exceedance of NC SSLs for pesticides or PCBs. Sample location MR04-SS03-8-12 exceeded the NC SSL of 1.13 µg/kg for dieldrin at 1.7 µg/kg.

During Phase II, no pesticides or PCBs exceeded NC SSLs in subsurface soil.

Explosives Residues: Nitrobenzene was detected at five of the six soil boring locations during Phase I. The maximum concentration was found in subsurface soil sample MR04-SS01 at 110 µg/kg. No NC SSL exists for nitrobenzene.

No explosives residues were detected during Phase II.

Total Metals: Metals to exceed the NC SSLs during Phase I and Phase II include arsenic, chromium, iron and mercury. The arsenic NC SSL of 5.24 mg/kg and the background concentration of 2.12 mg/kg was exceeded at MR04-IS14 at 9.6 mg/kg and MR04-IS29 at 8.7 mg/kg. Chromium exceeded both NC SSL of 14.5 mg/kg and the background of 27.2 mg/kg at two locations, MR04-SS09 at 37.1 mg/kg and MR04-IS29 at 30.4 mg/kg. All the subsurface soil locations exceeded the NC SSL for iron of 151 mg/kg however the base background concentration for iron is 5,439 mg/kg. Seventeen of the thirty-four subsurface soil locations exceed both the NC SSL and the background concentration for iron, with the maximum iron concentration found at MR04-IS26 of 19,900 mg/kg. Mercury concentrations exceeded NC SSLs of 0.015 mg/kg but not background, 0.071 mg/kg, at four sample locations, MR04-SS01 at 0.057 mg/kg, MR04-SS05 at 0.029 mg/kg, MR04-SS07 at 0.028 mg/kg, and MR04-SS09 at 0.033 mg/kg. Sample location MR04-IS32 exceeded the mercury NC SSL and background with a concentration of 0.073 mg/kg.

Wet Chemistry: During Phase I, TOC and pH were identified maximum values in subsurface soil sample MR04-SS01 of 43,000 mg/kg and 7.2, respectively.

Perchlorate was detected in one Phase II subsurface sample locations, MR04-IS34 at 9.5e-4 mg/kg. No other wet chemistry was analyzed.

Total Petroleum Hydrocarbons: During Phase I, DRO were detected at two of the six subsurface soil boring locations while GRO were detected at one of the six locations. The maximum concentrations in subsurface soils occurred in sample location MR04-SS01-0-4 (4.1 mg/kg) with TPH-DRO and in sample location MR04-SS03 at 0.052 mg/kg for TPH-GRO.

4.2.3 Groundwater Analytical Data Summary

This section presents the results for laboratory analysis of groundwater collected from the ten shallow (5 to 27 ft bgs) and five intermediate monitoring wells (28 to 50 ft bgs) during Phases I and II. Groundwater results are screened by the North Carolina Water Quality Standards for Groundwater (NC2Ls; NCDENR, 2005) and MCB Camp Lejeune background groundwater concentrations (two times the mean background groundwater +concentration) which were available for inorganic constituents only (Baker Environmental, Inc., 2001). NC 2Ls are the maximum allowable concentrations resulting from any discharge of contaminants to the land or waters of the state, which may be tolerated without creating a threat to human health or which otherwise render the groundwater unsuitable for its intended purpose. Only the samples exceeding the NC2Ls are discussed below. The detections and exceedances of NC2Ls and/or background are shown on **Table 4-4** and **Figure 4-5.**

Volatile Organic Compounds: No VOCs exceeded the NC2Ls during either Phase I or Phase II groundwater sampling.

Semivolatile Organic Compounds: During Phase I, bis(2-ethylhexyl)phthalate was the only SVOC to exceed it's NC2L of 3 µg/L at two of the ten shallow monitoring wells. Bis(2-ethylhexyl)phthalate was detected at MR04-MW07 at 3.5 µg/L and at MR04-MW08 at 8.1 µg/L.

No SVOCs exceeded NC2L during Phase II.

Pesticide/Polychlorinated Biphenyls: During Phase I, heptachlor epoxide was the only pesticide or PCB detected in groundwater and exceeded the NC 2L of 0.0038 µg/L at three of the fifteen monitoring wells. The maximum concentration of 0.21 µg/L was detected in the shallow well MR04-MW13. The other two detections occurred in intermediate wells MR04-MW06 at 0.18 µg/L and MR04-MW12 at 0.12 µg/L.

Beta-BHC was the only pesticide or PCB detected during Phase II and did not exceed NC 2L standards.

Explosives Residues: Explosive residues detected in groundwater during Phase I included 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, nitrobenzene, perchlorate, and 4-nitrotoluene. There are no NC2L standards for explosives residuals.

During Phase II, no explosive residuals were detected in groundwater.

Metals: Three metals exceeded NC2Ls during the sampling events, chromium, iron and manganese.

During Phase I, total chromium exceeded its NC2L of 50 µg/L and base background of 3.13 µg/L in intermediate well MR04-MW12 at 446 µg/L and dissolved chromium also exceeded screening criteria at 393 µg/L. No exceedances occurred during Phase II for chromium.

Iron concentrations exceeded the NC2L of 300 µg/L but not the base background concentration of 5,999 µg/L for iron at five wells. Shallow monitoring wells exceeding NC2L for total iron during Phase I include MR04-MW05 at 809 µg/L and, during Phase II, MR04-MW10 at 516 µg/L. Dissolved iron exceeded screening criteria in shallow monitoring wells during Phase I at MR04-MW03 at 301 µg/L, during both phases at MR04-MW05 at 867 µg/L and 306 µg/L, respectively. Total iron exceeded NC2L at intermediate depth well MR04-MW06, during both Phase I and II, at 842 µg/L and 3,360 µg/L, respectively, and dissolved iron exceeded NC 2L at MR04-MW06 during Phase II at 749 µg/L. Intermediate depth well MR04-MW09 exceeded NC2Ls for total and dissolved iron during Phase II at 442 µg/L and 402 µg/L, respectively.

Manganese exceeded NC2L, 50 µg/L, but not the base background of 214 µg/L at four monitoring well locations, three intermediate and one shallow. During Phase I only, MR04-MW02, an intermediate depth well, exceeded NC2L for total manganese at 50.6 µg/L. Total manganese also exceeded screening criteria during both phase at intermediate monitoring wells MR04-MW06, at 160 µg/L and 101 µg/L, at MR04-MW09 at 105 µg/L and at 67.6 µg/L, respectively. Dissolved manganese exceeded screening criteria at MR04-MW06 during both phases at 140 µg/L and 56 µg/L and at MR04-MW09 at 104 µg/L and 63.2 µg/L, respectively. The only shallow well to exceed the manganese NC2L was MR04-MW07 during Phase I for total manganese at 85.2 µg/L and dissolved manganese at 91.5 µg/L.

All iron and manganese exceedances of the NC2Ls were below the base background levels for iron and manganese in groundwater.

Wet Chemistry Parameters: During Phase I, TOX were detected in two intermediate wells with the maximum concentration detected in MR04-MW02 at 0.016 mg/L. TOC was detected in thirteen of the fifteen wells with the maximum concentration occurring in MR04-MW06 at 8.50 mg/L.

Phase II wet chemistry analysis included perchlorate. Perchlorate was detected in eight of the fifteen monitoring wells. The maximum concentration of perchlorate was found in well MR04-MW14 at 0.3 µg/L.

Total Petroleum Hydrocarbons: TPH analysis was only completed during Phase I.

Oil and grease was only detected in the shallow well MR04-MW14 at 7.20 mg/L. TPH-GRO was detected in three of the fifteen Site monitoring wells (two shallow and one intermediate) with the maximum concentration of 47.0 mg/L occurring in intermediate well MR04-MW02. TPH-DRO was not detected.

4.2.4 Surface Water and Sediment Analytical Result Summary

All surface water and sediment samples were obtained from ten pre-chosen locations **Figure 3-1** during the both Phase I and Phase II sampling events.

Surface water sampling results were screened by the (North Carolina Administrative Code 02B (NC2B) Surface Water standards. The NC2B water quality standards apply to surface waters within water supply watersheds and are applicable to all Water Supply Classifications (NCDENR, 2007). Only the samples exceeding the NC2B are discussed below.

The sediment sampling results were screened by the most current USEPA Region IX PRG Table (USEPA, 2004b). The PRGs are adjusted for noncarcinogenic effects, the value presented in the PRG table for a HQ of 1.0 was divided by 10 (i.e., HQ = 0.1) to conservatively account for exposure to multiple constituents. PRGs based on carcinogenic effects were used as presented in the PRG table, and are based on a carcinogenic risk of 1×10^{-6}. Only the samples exceeding the adjusted PRGs are discussed below.

The detections and exceedances of screening criteria and/or background for surface water and sediment are shown on **Table 4-5 and 4-6** and **Figures 4-6 and 4-7**, respectively.

Surface Water

Volatile Organic Compounds: No VOCs exceeded the NC2B standards during Phase I or II.
Semivolatile Organic Compounds: Butylbenzylphthalate and bis(2-ethylhexyl)phthalate were the only SVOCs detected during either phases of sampling. The maximum concentration of butylbenzylphthalate was detected during the Phase II sampling of 1.3 µg/L at MR04-SW01. No NC2B standard exists for butylbenzylphthalate. During Phase I, bis(2-ethylhexyl)phthalate exceeded its NC2B standard of 1.2 µg/L at eight of the ten surface water locations with the maximum concentration of 16 µg/L at MW04-SW07. During Phase II, only one detection of bis(2-ethylhexyl)phthalate was found at MR04-SW04 of 13 µg/L.

Pesticide/Polychlorinated Biphenyls: Five pesticides/PCBs exceeded NC2B standards including 4,4'-Dichlorodiphenyldichloroethane (DDD), dieldrin, heptachlor epoxide, alpha-BHC and beta-BHC. 4,4'-DDD exceeded the NC2B standard of 3.1e-4 µg/L at MR04-SW07 at 0.01 µg/L during Phase I sampling. Dieldrin exceeded its NC2B standard of 5.0e-5 µg/L at MR04-SW06 at 0.02 µg/L and at MR04-SW07 at 0.04 µg/L both during Phase I and at MR04-SW08 at 0.013 µg/L during Phase II only. Exceedances of the NC2B standards of 8.0e-5 µg/L for heptachlor epoxide, 0.0026 µg/L for alpha-BHC and 0.0091 µg/L of beta-BHC occurred only during the Phase II sampling. Exceedances were located at MR04-SW06 for heptachlor epoxide of 0.0059 µg/L and for all three at MR04-SW08, heptachlor epoxide at 0.014 µg/L, alpha-BHC at 0.0064 µg/L and beta-BHC 0.011 µg/L.

Explosives Residues: No explosive compounds were detected in surface water during either Phase I or Phase II surface water sampling effort.

Metals: Three metals exceeded NC2B standards including aluminum, arsenic and thallium. Aluminum's NC2B standard of 6500 µg/L was exceeded at MR04-SW04 at 7,150 µg/L during Phase I. Arsenic exceeded it's NC2B of 10 µg/L at all seven sampled locations during Phase II. The maximum arsenic concentration was detected at MR04-SW06 at 17.6 µg/L. Thallium was detected and exceeded it's NC2B of 0.24 µg/L only once during Phase I, MR04-SW05 at 3.8 µg/L, however during Phase II five exceedances occurred. Sample locations MR04-SW01 at 1 µg/L, MR04-SW03 at 1 µg/L, MR04-SW04 at 1.1 µg/L, MR04-SW06 at .64 µg/L and MR04-SW08 at 1.2 µg/L all exceeded the NC2B for thallium.

Surface water was analyzed for dissolved metals during Phase II. Arsenic was the only dissolved metal to exceed the NC2B. Arsenic exceeded it's NC2B of 10 µg/L at MR04-SW02 at 16.3 µg/L, MR04-SW05 at 18.2 µg/L and MR04-SW06 at 14.2 µg/L.

Wet Chemistry Parameters: During Phase I, TOC was detected in five of the ten surface water sampling locations with the maximum concentration occurring in MR04-SW02 of 33 mg/L. TOXs were detected in one surface water sampling location, MR04-SW019 of 0.014 mg/L.

Total Petroleum Hydrocarbons: Oil and grease was detected at one sampling location out of ten during Phase I. MR04-SW02 reported 11,000 µg/L from Phase I surface water sampling effort. TPH-GRO was detected at two of the eight analyzed sampling locations with the highest detection of 29.0 µg/L occurring at MR04-SW08. TPH-DRO was not detected.

Phase II did not analyze for TPH.

Sediment

Volatile Organic Compounds: No VOCs exceeded the adjusted PRGs.

Semivolatile Organic Compounds: Benzo(a)pyrene was the only SVOC to exceeded the PRGs. Benzo(a)pyrene exceeded the PRG of 62 µg/kg at MR04-SD06 at 220 µg/kg during Phase I and MR04-SD08 at 300 µg/kg during Phase II.

Pesticide/Polychlorinated Biphenyls: No pesticides or PCBs exceeded the screening criteria for sediments during either Phase I or Phase II.

Explosives Residues: During Phase I, nitrobenzene as the only explosive compound detected however no exceedances occurred. No explosive residuals were detected during Phase II.

Total Metals: Four metals exceeded PRGs including aluminum, arsenic, iron, and vanadium. Exceedances of aluminum's PRG of 7,600 mg/kg occurred during both phases of sampling at MR04-SD02, during Phase I at 15,400 mg/kg and Phase II at 17,500 mg/kg. Aluminum also exceeded the PRG during Phase I at MR04-SD07 at 11,400 mg/kg, at MR04-SD09 at 12,300 mg/kg, MR04-SD10 at 16,800 mg/kg and during Phase II only at MR04-SD06 at 8,340 mg/kg and MR04-SD08 at 11,500 mg/kg.

Arsenic exceeded the PRG of 0.39 mg/kg at every location and during both events except at MR04-SD06 during Phase I when arsenic was not detected. The maximum arsenic detection was located at MR04-SD08 of 4.8 mg/kg during Phase II.

Iron exceeded it's PRG of 2,300 mg/kg at all locations during both sampling events except at MR04-SD08 during Phase I and at MR04-SD01 and MR04-SD04 during Phase II. The maximum iron detection of 11,800 mg/k was located at MR04-SD01 during Phase I.

Vanadium exceeded its PRG of 7.8 mg/kg at eight of the ten locations with the maximum concentration detected at MR04-SD06 at 44.5 mg/kg.

Wet Chemistry Parameters: During Phase I sediment sampling, TOC was detected in all ten sediment samples with the maximum concentration of 420,000 detected in MR04-SD06 and MR04-SD10.

Phase II sampling analyzed for perchlorate only during the wet chemistry analysis. No perchlorate was detected.

Total Petroleum Hydrocarbons: TPH-GRO was not detected. TPH-DRO was detected at three of the sediment sampling locations with the maximum concentration of 290 mg/kg found in MR04-SD07. Oil and grease was detected at one sampling location out of ten. MR04-SD09 reported 1,800 mg/kg of oil and grease during Phase I sediment sampling effort.

The Phase II sediment sampling did not analyze for TPH.

SECTION 5

Human Health Risk Assessment

The surface soil, subsurface soil, surface water, sediment, and groundwater analytical data for samples collected during the Site UXO-04 ESI in April 2006, and September and October 2007 were evaluated to determine the potential for human health risks associated with exposure to these media. The risk evaluation was performed in two phases. The first phase entailed comparing the site data to appropriate human health risk-based screening values and site background concentrations, and performing a risk ratio evaluation. If any of the media indicated the potential for unacceptable human health risks based on the human health risk-based screening and risk ratio evaluation, that medium was carried forward to the second phase of the risk evaluation, a complete human health risk assessment (HHRA). Only those media that showed the potential for human health risks based on the first phase were carried forward to the second phase of evaluation.

The data evaluated during both phases of the risk assessment are presented in **Appendix J**, and the samples are identified on **Table 5-1.** Due to the number of surface soil samples collected and evaluated during the Phase II sampling (surface soil sampling using a modified decision unit/multi-incremental sampling technique), they are not listed on **Table 5-1**, but can be found on **Table 4-2**. As the sampling techniques between the Phase I and Phase II sampling were different, the surface soil samples collected during Phase I were not combined with the Phase II samples for evaluation in the risk assessment. Additionally, as the Phase I surface soil samples were used to design the Phase II surface soil sampling, and there were only four Phase I surface soil samples, they were not evaluated alone as surface soil in the risk assessment. However, they were combined with the Phase I and II subsurface soil samples and evaluated as total soil (combined surface and subsurface soil) for future exposure. A detailed discussion of the soil sampling and data evaluated in the HHRA can be found in Sections 3.4.1 and 4.2.2. The data included in the risk evaluation were all validated. Following data validation, the data were evaluated to determine the reliability of the data for use in the quantitative risk assessment. A review of the data identified the following criteria for data usability:

- Estimated values flagged with a J, J+, or J- qualifier were treated as detected concentrations.
- Data qualified with an R (rejected) were not used in the risk assessment.
- Data qualified with a B (blank contamination) were used in the risk assessment as if the constituents were not detected, with the blank-related concentrations of each constituent used as the sample detection limit.
- For duplicate samples, the maximum concentration between the two samples was used as the sample concentration.
- Unfiltered groundwater samples were analyzed in the Phase I and Phase II risk evaluations following USEPA Region IV guidance (USEPA, 2000a).

5.1 Human Health Conceptual Site Model

The human health conceptual site model (CSM) presents an overview of site conditions, potential contaminant migration pathways, and exposure pathways to potential receptors. Figure 5-1 presents the CSM for Site UXO-04 associated with soil, surface water, sediment, and groundwater. Table 1 in Appendix H summarizes the potential exposure pathways and scenarios considered for UXO-04. Section 2.3 presents the site history and background.

The former Knox Trailer Park covers approximately 38 acres of Site UXO-04. The former trailer park property is level and vegetated with grass and minimal tree cover. All residents have vacated the trailer park and the mobile homes have been removed from the site. A network of narrow roadways covers the former trailer park (Figure 2-1). All utilities, including telephone, cable, water, electricity, and sewers, are buried and are assumed to be intact. The remaining area of Site UXO-04 consists of approximately 95 acres of woodland that surrounds the former Knox Trailer Park to the north, east, and west.

Potential current receptors include visitors/trespassers from nearby residential areas or site buildings. The current receptors may come in contact with surface soil, surface water, and sediment. Exposure routes may include incidental ingestion of and dermal contact with the surface soil, inhalation of particulate and volatile emissions from the surface soil, and incidental ingestion of and dermal contact with surface water and sediment.

Potential future receptors include the current receptors, and future residents, construction workers, and site workers. Future receptors could be exposed to surface and subsurface soil if future residential houses or industrial buildings or piping are constructed at the site and the soil is re-worked, bringing the subsurface soil to the surface. Exposure routes for future exposure to the surface and subsurface soil are the same as those for current surface soil, incidental ingestion of and dermal contact with the soil, and inhalation of particulate and volatile emissions from the soil. Potable water supplies for MCB Camp Lejeune and the surrounding residential area are provided by water supply wells that pump groundwater from the Castle Hayne aquifer. Although freshwater is present within the surficial, Castle Hayne, Beaufort, and Peedee aquifers, all of which are located below MCB Camp Lejeune, only the Castle Hayne aquifer is used by MCB Camp Lejeune as a water supply source (Cardinell, et al., 1993). There are no active water supply wells within a 1,500 ft radius of UXO-04. The groundwater use patterns are already established for the Base and area around UXO-04, thus use of site groundwater for industrial or residential purposes is unlikely. However, state and federal governing policies assume that underground fresh water resources are potable, and should be aimed to be maintained as such. Therefore, a potable use scenario was evaluated in this risk assessment. It was assumed if future residential development of the site occurs, the residents could use the groundwater as a potable water supply. The residents would be exposed through ingestion, and dermal contact and inhalation while bathing. Additionally, due to the groundwater depth (from about seven to 20 feet below ground surface), construction workers could be exposed to the groundwater through inhalation of volatiles and dermal contact in an excavation during construction activities.

Because of the minimal amount of VOC contamination at the site, vapor intrusion into current or future buildings is not considered an exposure pathway of concern and was not evaluated in the risk assessment.

5.2 Phase I - Human Health Risk-Based Screening and Risk Ratio Evaluation

The methodology and results of the human health risk based screening and risk ratio evaluation are described below.

5.2.1 Methodology

The human health risk based screening and risk ratio evaluation was conducted in three steps following the Navy risk ratio technique (U.S. Navy, 2000).

Step 1. The maximum detected constituent concentrations in each medium were compared to human health risk-based criteria listed on the most current USEPA Region IX PRG Table (USEPA, 2004b). Soil and sediment data were compared to USEPA Region IX PRGs for residential soil. Although construction workers and industrial workers are potential receptors for soil (see Section 5.1) in addition to residential receptors, the soil data were only screened against residential soil PRGs. Residential soil PRGs are more conservative (i.e. lower) than the industrial soil PRGs, and are therefore protective of the industrial worker and construction worker. Groundwater data were compared to USEPA Region IX PRGs for tap water. PRGs based on non-carcinogenic effects (indicated by a "nc" on the PRG table) were divided by 10 to account for exposure to multiple constituents. PRGs based on carcinogenic endpoints (indicated by a "ca" on the PRG table) were not adjusted. As there are no PRGs for surface water exposure, surface water data were compared to the ingestion of water and aquatic organisms value from USEPA National Recommended Water Quality Criteria (NRWQC, USEPA, 2006a), following USEPA Region IV risk assessment guidance (USEPA, 2000a). For constituents without a published NRWQC, the USEPA Region IX tap water PRG was used. Soil and groundwater data were also compared to the MCB Camp Lejeune background surface soil, subsurface soil, and groundwater concentrations (Baker Environmental, Inc., 2001).

If the detected concentration exceeded the applicable risk-based screening value (and background value), the screening level risk evaluation proceeded to Step 2.

Step 2. For constituents identified as constituents of potential concern (COPCs) in Step 1, a corresponding risk level value was calculated as follows:

$$\text{corresponding risk level} = \frac{\text{concentration x acceptable risk level}}{\text{PRG}}$$

The concentration is the maximum detected concentration. The acceptable risk level is 1 for noncarcinogens and 10^{-6} for carcinogens. The PRG is the PRG value presented in the USEPA Region IX PRG table. The PRG for noncarcinogenic effects is not adjusted by 10 as is done in Step 1, it is used as is presented in the USEPA Region IX PRG table to correspond to the acceptable risk level. The corresponding risk level is calculated using the equation above.

All of the corresponding risk values for each constituent within a media were summed to calculate the cumulative corresponding hazard index (for noncarcinogens) and cumulative corresponding carcinogenic risk (for carcinogens). A cumulative corresponding hazard index is also calculated for each target organ/effect. If the cumulative corresponding hazard index for a target organ/effect is greater than 0.5, or the cumulative corresponding carcinogenic risk is greater than 5×10^{-5}, the constituents contributing to these values are retained as COPCs and carried forward to Step 3.

Step 3. For constituents identified as COPCs in Step 2, a corresponding risk value is calculated using the 95 percent upper confidence limit (UCL) of the mean of the data set.

The 95 percent UCL of the arithmetic mean of the data set was calculated using ProUCL Version 4.0 (Singh, et al., 2007). First, the distribution of each data set was determined (normal, lognormal, and/or gamma) using the Shapiro-Wilks test to test for a normal or lognormal distribution and the Anderson-Darling and Kolmogorov-Smirnov Tests to test for a gamma distribution. Based on the distribution and skewness of the data points, the ProUCL recommended 95 percent UCL is used as the concentration in the corresponding risk level calculation.

5.2.2 Results

The human health risk-based screening (comparison to risk-based criteria and background levels, Step 1)) and risk ratio evaluation (Step 2) were performed for surface soil, subsurface soil, sediment, and groundwater. Only the comparison to risk-based criteria (Step 1) was performed for the surface water, as discussed below.

Surface Soil

Multi-increment surface soil samples (collected from 0 to 1 ft bgs) collected from over 260 decision units across the site in September and October 2007 were analyzed for TCL VOCs, SVOCs, pesticides/PCBs, and explosives, and TAL metals. Each decision unit sampled was evaluated separately. Step 1, the comparison to risk-based criteria, is shown on Tables 4-1 and 4-2, and not re-created in Section 5. A summary of the COPCs selected based on this screening is shown on Appendix H-1, Table H-1. The risk ratio evaluation is presented in **Appendix H-1**. Due to the number of decision units and tables carried through the risk ratio evaluation, these screening tables are not included in the Table 2 series in Appendix H-2, but are presented in Appendix H-1.

In Step 1, there were a few constituents that exceeded the USEPA Region IX PRGs and base background concentrations for metals for many of the decision units. These constituents include aluminum, arsenic, cobalt, iron, vanadium, dieldrin, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene (**Appendix H-1, Table H-1)**. The decision units with COPCs retained based on Step 1 were evaluated in Step 2. Step 2 of the screening process (risk ratio using maximum detected concentrations, **Appendix H-1**) indicated that there are no COPCs associated with surface soil for any of the decision units and therefore, no unacceptable human health risks from exposure to surface soil.

Combined Surface and Subsurface Soil

Tables 2.4 through 2.4b, Appendix H-2, present the risk-based screening and risk ratio evaluation for combined surface and subsurface soil. As shown on Appendix H-2, **Table 2.4**, five metals exceeded the first step of the screening and were selected as COPCs for evaluation in Step 2. These metals are aluminum, arsenic, chromium, iron, and vanadium. Based on Step 2 of the screening process (risk ratio using maximum detected concentrations, **Table 2.4a, Appendix H-2**), iron was the only remaining COPC and was carried forward to Step 3. Based on Step 3 (risk ratio using 95 percent UCL, **Table 2.4b, Appendix H-2**) iron was not identified as a COPC for soil and exposure to soil was determined not to pose any unacceptable human health risks.

Surface Water

Table 2.1, Appendix H-2, presents the risk-based screening for surface water. As shown on this table, twelve constituents exceeded the screening value. Because surface water data were screened against the NRWQC, it is not possible to perform the risk ratio screening process (Step 2). Therefore, to evaluate potential human health risks, Phase II (a complete HHRA) was conducted for surface water, as presented in Section 5.3.

Sediment

Tables 2.2 through 2.2b, Appendix H-2 present the risk-based screening and risk ratio evaluation for sediment. As shown on **Table 2,2, Appendix H-2**, one PAH (benzo(a)pyrene) and four metals (aluminum, arsenic, iron, and vanadium) exceeded the first step of the screening and were selected as COPCs for evaluation in Step 2. Based on Step 2 of the screening process (risk ratio using maximum detected concentrations, **Table 2.2a, Appendix H-2**) vanadium was the only remaining COPC and was carried forward to Step 3. Based on Step 3 (risk ratio using 95 percent UCL, **Table 2.2b, Appendix H-2**) vanadium was not identified as a COPC for sediment and exposure to sediment is not expected to result in any unacceptable human health risks.

Groundwater

Tables 2.3 through **2.3b, Appendix H-2** present the risk-based screening and risk ratio evaluation for groundwater. As shown on **Table 2.3, Appendix H-2**, one VOC (chloroform), one SVOC (bis-2(ethylhexyl)phthalate), one pesticide (heptachlor epoxide), one explosive (4-nitrotoluene), and four metals (barium, chromium, thallium, and vanadium) exceeded the first step of the screening and were selected as COPCs for evaluation in Step 2. Based on Step 2 (risk ratio using maximum detected concentrations, **Table 2.3a, Appendix H-2**), chloroform, bis-2(ethylhexyl)phthalate, heptachlor epoxide, 4-nitrotoluene, and two metals (chromium and thallium) were carried forward to Step 3. After performing Step 3 (risk ratio using 95 percent UCL, **Table 2.3b, Appendix H-2**) thallium was retained as a COPC. As a COPC was retained after Step 3, groundwater was retained for further evaluation in Phase II in Section 5.2.

5.3 Phase II - Human Health Risk Assessment

A HHRA was performed for surface water and groundwater, the two media with COPCs based on the Phase I human health-risk based screening and risk ratio evaluations (Section 5-1). Supplemental information used in this HHRA, and the risk calculations, are presented

in **Appendix H-2** and include the *Risk Assessment Guidance for Superfund* (RAGS*), Volume 1, Human Health Evaluation Manual Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments* (RAGS Part D; USEPA, 2001a) tables, and additional supporting tables. Guidance documents used for preparing the risk assessment include *RAGS Part A* (USEPA, 1989), *RAGS Part D* (USEPA, 2001a), *RAGS Part E* (USEPA, 2004a), and USEPA Region IV *Supplemental Guidance to RAGS: Region IV Bulletins* (USEPA, 2000a).

The primary objective of the HHRA was to assess the health risks associated with exposure to surface water and groundwater under current site conditions. The risk assessment is comprised of the following components:

- **Identification of Chemicals of Potential Concern**—Identification of the chemicals found onsite and selection of the COPCs. COPCs are the focus of the subsequent evaluation in the risk assessment.
- **Exposure Assessment**—Identification of the potential pathways of human exposure, and estimation of the magnitude, frequency, and duration of these exposures.
- **Toxicity Assessment**—Compilation of the toxicity values used for developing numerical risk estimates for the COPCs.
- **Risk Characterization**—Integration of the results of the exposure and toxicity assessments to develop numerical estimates of health risks.
- **Uncertainty Assessment**—Identification and discussion of sources of uncertainty in the risk assessment.

5.3.1 Identification of COPCs

Surface water and groundwater data collected in March/April 2006 and September 2007 were quantitatively evaluated in the risk assessment. The data are included in **Appendix J.** Unfiltered groundwater samples were analyzed in the risk assessment following USEPA Region IV guidance (USEPA, 2000b).

The COPC screening is presented in **Tables 2.1** and **2.2** in **Appendix H-2**. The methodology used to select the COPCs for quantitative evaluation in the HHRA was the same as Step 1 of the Phase I risk screening evaluation, as follows:

- Groundwater data were compared to the USEPA Region IX PRGs for tap water (USEPA, 2004b). PRGs based on non-carcinogenic effects were divided by 10 to account for exposure to multiple constituents. PRGs based on carcinogenic effects were used as presented in the PRG table. Additionally, groundwater data were compared to the MCB Camp Lejeune background groundwater concentrations (Baker Environmental, Inc., 2001). Constituents with a maximum detected concentration below the PRG or background concentrations were not retained as COPCs.

  Groundwater data were also compared to the maximum contaminant levels (MCLs) and the NC Maximum Allowable Concentrations or Interim Maximum Allowable Concentrations (NC2L; NCDENR, 2005). However, only bis(2-ethylhexyl)phthalate, heptachlor epoxide, chromium, iron, manganese, and thallium exceeded their respective MCLs and/or NC2Ls and these exceedances were either at concentrations below

background or detected above criteria during the Phase I sampling event and not during the subsequent Phase II sampling event. Therefore, these comparisons were not used to select the groundwater COPCs.

- Surface water data were compared to the ingestion of water and aquatic organisms value from the USEPA NRWQC (USEPA, 2006) and the NC Water Quality Standards (NC2B) for human health (NCDER, 2007). For constituents without NRWQC or NC2B, the USEPA Region IX tap water PRGs were used as the screening criteria. PRGs based on non-carcinogenic effects were divided by 10 to account for exposure to multiple constituents. PRGs based on carcinogenic effects were used as presented in the PRG table. Constituents with a maximum detected concentration below the NC2B, AWQC, and/or the PRG were not retained as COPCs.
- There are no published dose-response-values for assessing the risks associated with exposure to lead. USEPA has presented guidance on evaluating lead concentrations in water. Lead concentrations lower than 0.015 mg/L in groundwater (the Safe Drinking Water Act action level for lead in potable water) are considered adequately protective of human health under residential land-use conditions. Exceeding this value prompts further evaluation to assess the potential for human health impacts. Lead concentrations in groundwater and surface water were compared to the lead action level.

Table 5-2 identifies the chemicals that were selected as COPCs for surface water and groundwater. The COPCs for surface water are primarily pesticides and metals.

COPCs were identified for groundwater in Appendix H-2, Table 2.3, based on maximum detected concentrations in groundwater samples collected in 2006 and 2007 exceeding MCB Camp Lejeune background groundwater concentrations (Baker Environmental, Inc., 2001) and USEPA Region IX PRGs for tap water (USEPA, 2004b). The USEPA Region IV methodology for calculation of groundwater exposure point concentrations (USEPA, 2000a) does not involve use of all of the groundwater data, as is used for the other site media, but involves use of data from the center of the groundwater contamination plume (if present). As there is no groundwater contamination plume present at the site, further evaluation and COPC screening of the groundwater was performed to determine if there are any COPCs in each well that need to be evaluated further in the risk evaluation. For this additional evaluation, only the most recent groundwater data (the samples collected in 2007) were compared to the background concentrations and PRGs to identify any monitoring wells that would need to be evaluated. The comparison of the 2007 groundwater data from each monitoring to these screening values is presented in Appendix H-2, Table 2.3c. A monitoring well was selected for further evaluation if a constituent detected in the 2007 sample from that well exceeded both the PRG and background concentration (if available).

As shown in Appendix H-2, Table 2.3c, constituent exceedences of both tap water PRGs and background concentrations in the 2007 groundwater data occurred in only two of the monitoring wells for only three constituents. Chloroform and chromium are COPCs in MW02, and barium is a COPC in MW06. As only one sample was evaluated for each well, a risk ratio calculation was performed for these COPCs for both of these wells (see Section 5.2.1, Step 2). None of COPCs in MW02 or MW06 were identified as COPCs. Therefore, there are no unacceptable risk associated with residential exposure to groundwater (or any

other scenario, as the residential scenario is the most conservative scenario) and no further evaluation of the groundwater was performed in this risk assessment.

5.3.2 Exposure Assessment

Exposure assessment is the estimation of the likelihood, magnitude, frequency, duration, and routes of exposure to a chemical. Exposure refers to the potential contact of an individual (or receptor) with a chemical. Exposure can occur when contaminants migrate from a source to an exposure point, or when a receptor comes into direct contact with contaminated media.

The three components of exposure assessment include:

- Characterization of exposure setting
- Identification of exposure pathways
- Quantification of exposure

Characterization of Exposure Setting

Descriptions and the history of MCB Camp Lejeune and Site UXO-04 are included in Sections 2-1 and 2-3, respectively. In the recent past, areas of Site UXO-04 (former Knox Trailer Park) were used for base housing. The trailers have been demolished and Knox Trailer Park is not being used, but future plans are to redevelop the land for base housing.

Table 5-3 summarizes the receptors potentially exposed to surface water. Potential current receptors include nearby residents or base workers who may use the surface water bodies for recreational activities such as swimming.

Identification of Exposure Pathways

An exposure pathway can be described as the physical course that a COPC takes from the point of release to a receptor. To be complete, an exposure pathway must have all of the following components:

- A source (e.g., constituent residues in soil);
- A mechanism for chemical release and migration (e.g., leaching);
- An environmental transport medium (e.g., groundwater);
- A point or site of potential human contact (exposure point, e.g., drinking water); and
- A route of intake (e.g., ingestion of groundwater used as a drinking water source).

In the absence of any one of these components, an exposure pathway is considered incomplete and, by definition, there is no risk or hazard. In some cases, a receptor may contact a source directly, eliminating the release and transport pathways.

The potential exposure pathways for exposure to surface water are shown in **Table 5-3** and **Appendix H-2**, **Table 1**. In summary, the current and future land use exposure pathways for surface water for quantitative evaluation include :

- Recreational (adult, youth, and child): incidental ingestion of and dermal contact with groundwater.

Quantification of Exposure

Exposure is quantified by estimating the exposure point concentrations (EPCs) of COPCs in environmental media and COPC intake by the receptor.

Exposure Concentrations

EPCs are estimated constituent concentrations that a receptor may contact and are specific to each exposure medium. EPCs may be directly measured or estimated using environmental fate and transport models. Constituent concentrations in surface water were measured and no fate and transport modeling was performed for the risk evaluation.

The RME EPC for each of the surface water COPCs was calculated as a 95 percent UCL of the arithmetic mean of the data set, using ProUCL Version 4.0 (Singh, et al., 2007). First, the distribution of each data set was determined (normal, lognormal, and/or gamma) using the Shapiro-Wilks test to test for a normal or lognormal distribution, and the Anderson-Darling and Kolmogorov-Smirnov Tests to test for a gamma distribution. Based on the distribution and skewness of the data points, ProUCL recommended a 95 percent UCL that was used as the RME EPC.

Appendix H-2, Table 3.1.RME presents the EPCs for the surface water COPCs the rationale for the selected EPC.

Estimation of Chemical Intakes

Chemical intake is the amount of the chemical constituent entering the receptor's body. The quantification of exposure is based on an estimate of the average daily intake, the average amount of the chemical contaminant entering the receptor's body per day. Chemical intakes are generally expressed as follows:

$$ADI = \frac{C \times CR \times EF \times ED}{BW \times AT}$$

Where:

ADI = average daily intake (mg/kg-day)
C = chemical concentration (mg/L, mg/kg)
CR = contact rate (L/day, mg/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
BW = body weight (kg)
AT = averaging time (days)

The intake equation requires exposure parameters that are specific to each exposure pathway. Many of the exposure parameters have default values, which were used for this assessment. These assumptions, based on estimates of body weights, media intake levels, and exposure frequencies and duration, are provided in USEPA guidance. Only RME exposure parameters were compiled as CTE risks were not calculated since there were no. scenarios where the RME risk was greater than USEPA's non-carcinogenic hazard index (HI) of 1 or above USEPA's carcinogenic risk target range of $1x10^{-6}$ to $1x10^{-4}$. Table 4.1.RME

in **Appendix H-2** identifies the exposure parameters and intake equations for each of the scenarios evaluated in the risk assessment.

5.3.3 Toxicity Assessment

Toxicity assessment defines the relationship between the magnitude of exposure and possible severity of adverse effects, and weighs the quality of available toxicological evidence. Toxicity assessment generally consists of two steps: hazard identification and dose-response assessment. Hazard identification is the process of determining the potential adverse effects from exposure to the constituent along with the type of health effect involved. Dose-response assessment is the process of quantitatively evaluating the toxicity information and characterizing the relationship between the dose of the constituent administered or received and the incidence of adverse health effects in the exposed population. Toxicity criteria (e.g., reference doses and slope factors) are derived from the dose-response relationship.

The USEPA recommends that a tiered approach be used to obtain the toxicity values, the reference doses (RfDs) and cancer slope factors (CSFs), used to calculate non-cancer and cancer risks, respectively (USEPA, 2003). The sources of toxicity values are as follows: (1) the USEPA's Integrated Risk Information System (IRIS) database (USEPA, 2008), (2) the Provisional Peer Reviewed Toxicity Value (PPRTV) database maintained by the USEPA's National Center for Environmental Assessment (NCEA) and the Superfund Health Risk Technical Support Center (STSC), and (3) other USEPA and non-USEPA sources including NCEA, Agency for Toxic Substances and Disease Registry, Health Effects Assessment Summary Tables (HEAST; USEPA, 1997a), California EPA (Cal EPA), USEPA's Office of Water, and World Health Organization (WHO). The use of provisional toxicity values, such as those from the PPRTV database, increases the uncertainty of the quantitative risk estimate. If no toxicity values were available for a detected constituent, surrogate constituents were selected and their PRGs were used for the COPC selection process.

USEPA-derived oral and inhalation chronic and subchronic RfDs, and associated uncertainty factors (UFs) and modifying factors (MFs), for the COPCs are listed in Tables 5.1 and 5.2 in **Appendix H-2**. USEPA-derived oral and inhalation CSFs are listed in Tables 6.1 and 6.2 in **Appendix H-2**.

Dermal RfDs and CSFs were estimated from oral RfDs and CSFs using an oral to dermal adjustment factor. This factor is designed to convert the orally administered dose toxicity factors to dermally absorbed dose toxicity factors (USEPA, 2004a). The oral RfDs were converted to dermal RfDs by multiplying by the oral to dermal adjustment factor (gastrointestinal absorption factor) and the oral CSFs were converted to dermal CSFs by dividing by the gastrointestinal (GI) absorption factor. If a chemical-specific GI absorption factor was not available or was greater than 50 percent, a GI absorption factor of 100 percent was assumed. The dermal RfDs are included in Table 5.1, **Appendix H-2**. The dermal CSFs are presented in Table 6.1, **Appendix H-2**.

5.3.4 Risk Characterization

Risk characterization combines the results of the previous elements of the risk assessment to evaluate the potential health risks associated with exposure to the COPCs. The risk

characterization is then used as an integral component in remedial decision-making and selection of potential remedies or actions, as necessary.

Noncarcinogenic and Carcinogenic Risk Estimation Methods

Potential human health risks are discussed independently for carcinogenic and noncarcinogenic constituents because of the different toxicological endpoints, relevant exposure duration, and methods used to characterize risk. Some constituents may produce both noncarcinogenic and carcinogenic effects, and were evaluated in both groups. The methodology used to estimate noncarcinogenic hazards and carcinogenic risks are described below.

Noncarcinogenic health risks are estimated by comparing the calculated intake to an RfD. The calculated intake divided by the RfD is equal to the HQ:

$$HQ = Intake / RfD$$

The intake and RfD represent the same exposure period (i.e., chronic or subchronic) and the same exposure route (i.e., oral intakes are divided by oral RfDs). A HQ that exceeds 1.0 (i.e., the intake exceeds the RfD) indicates that there is a potential for adverse health effects associated with exposure to that constituent.

To assess the potential for noncarcinogenic health effects posed by exposure to multiple constituents, a HI approach is used (USEPA, 1986). This approach assumes that noncarcinogenic hazards associated with exposure to more than one constituent are additive, and the HQs for individual constituents are added together. Synergistic or antagonistic interactions between constituents are not considered. The HI may exceed 1.0 even if all of the individual HQs are less than one. HIs are also added across exposure routes and media to estimate the total noncarcinogenic health effects to a receptor posed by exposure through multiple routes and media. A HI greater than one indicates that there is some potential for adverse noncarcinogenic health effects associated with exposure to the contaminants of concern, possibly warranting remedial action. However, if the HI is greater than one, the HI is calculated for each target organ/effect, to determine if the HI for a specific target organ/effect is greater than one. If the HI for each target organ/effect is not above one, it can be assumed that there is no unacceptable noncarcinogenic hazard to the receptor.

The potential for carcinogenic effects due to exposure to site-related constituents is evaluated by estimating the excess lifetime carcinogenic risk (ELCR). ELCR is the incremental increase in the probability of developing cancer during one's lifetime in addition to the background probability of developing cancer. For example, an individual exposed to a carcinogen with a calculated cancer risk of $2x10^{-6}$ indicates that the probability of the individual getting cancer increases by 2 in a million above background levels.

Carcinogenic risk is calculated by multiplying the intake by the CSF.

$$ELCR = Intake \times CSF$$

The combined risk from exposure to multiple constituents was evaluated by adding the risks from individual constituents. Risks were also added across the exposure routes and media if an individual would be exposed through multiple routes and to multiple media.

When a cumulative carcinogenic risk to an individual receptor under the assumed RME exposure conditions at the site exceeds 100 in a million (i.e., 10^{-4} excess carcinogenic risk), CERCLA generally requires remedial action to reduce risks at the site (USEPA, 1991). If the cumulative risk is less than 10^{-4}, action generally is not required, but may be warranted if a risk-based chemical-specific standard [for example, MCL] is exceeded.

5.3.5 Risk Assessment Results

The results of the risk characterization for surface water are presented below by receptor. The risks are calculated in **Appendix H-2**, Tables 7.1.RME through 7.3.RME. The risks are summarized in **Appendix H-2**, Tables 9.1.RME through 9.3.RME. A summary of the RME results is shown in **Table 5-4.** CTE risks were not calculated since the RME hazards were all less than 1 and none of the RME carcinogenic risk exceeded 10^{-4}.

Current/Future Recreational Adult (Table 9.1.RME, Appendix H-2)

The risk assessment assumed that a recreational adult could swim in the surface water bodies near Site UXO-04 and could be exposed to surface water through incidental ingestion and dermal contact. The RME noncarcinogenic hazard (HI = 0.065) is below USEPA's target HI of 1. The RME carcinogenic risk (CR = 2.7×10^{-6}) is within USEPA's target risk range of 1×10^{-6} to 1×10^{-4}.

Current/Future Recreational Youth (Table 9.2.RME, Appendix H-2)

The risk assessment assumed that a recreational youth (ages 7-17 years old) could swim in the surface water bodies near Site UXO-04 and could be exposed to surface water through incidental ingestion and dermal contact. The RME noncarcinogenic hazard (HI = 0.081) is below USEPA's target HI of 1. The RME carcinogenic risk (CR = 1.5×10^{-6}) is within USEPA's target risk range of 1×10^{-6} to 1×10^{-4}.

Current/Future Recreational Child (Table 9.3.RME, Appendix H)

The risk assessment assumed that a recreational child (ages 0-6 years old) could swim in the surface water bodies near Site UXO-04 and could be exposed to surface water through incidental ingestion and dermal contact. The RME noncarcinogenic hazard (HI = 0.16) is below USEPA's target HI of 1. The RME carcinogenic risk (CR = 2.1×10^{-6}) is within USEPA's target risk range of 1×10^{-6} to 1×10^{-4}.

5.3.6 Uncertainty Associated with Human Health Assessment

The risk measures used in human health risk assessments are not fully probabilistic estimates of risk, but are conditional estimates given that a set of assumptions about exposure and toxicity are realized. Thus it is important to specify the assumptions and uncertainties inherent in the risk assessment to place the risk estimates in proper perspective (USEPA, 1989).

General Uncertainty in COPC Selection

The general assumptions used in the COPC selection process were conservative to ensure that true COPCs were not eliminated from the quantitative risk assessment and that the highest possible risk was estimated.

Uncertainty Associated with Exposure Assessment

Uncertainty in the exposure assessment was generally treated with conservative decision rules and assumptions, and therefore, the uncertainty likely overestimates actual exposure to COPCs.

The exposure factors used for the quantitation of exposure were conservative and reflect worst-case or upper-bound assumptions on the exposure. The reliability of the values chosen for the exposure factors also contributes substantially to the uncertainty of the resulting risk estimates. Because most of the exposure factors are worst-case or upper-bound assumptions, the resulting risks are worst-case and likely overestimate the actual risk.

Site-related contamination is expected to decrease with time due to naturally occurring attenuation processes (e.g., degradation due to weathering, volatilization, advection, dispersion, leaching due to infiltrating precipitation, etc.). The risk assessment assumed concentrations would remain constant throughout the exposure period and that these concentrations occur everywhere throughout the site. This likely results in an over-estimation of risk.

Uncertainty Associated with Toxicity Assessment

Uncertainty associated with the noncarcinogenic toxicity factors is included in **Appendix H-2**, **Tables 5.1 and 5.2**. Several UFs were applied by USEPA to extrapolate dose points from animal studies to humans. These UFs range between 1 and 3,000. Additional modification factors are also used based on the professional judgment of the USEPA. Therefore, there is a high degree of uncertainty in the noncarcinogenic toxicity criteria, based on the available scientific data for each constituent. The noncarcinogenic toxicity factors are most likely an overestimate of actual toxicity.

The uncertainty associated with CSFs is mostly associated with the low dose extrapolation where carcinogenicity at low doses is assumed to be a linear response. This is a conservative assumption, which introduces a high uncertainty into slope factors that are extrapolated from this area of the dose-response curve. The CSFs are based on the assumption that there is no threshold level for carcinogenicity; however, most of the experimental studies indicate existence of a threshold level. Therefore, CSFs developed by USEPA represent upper bound estimates. Carcinogenic risks generated in this assessment should be regarded as an upper bound estimate on the potential carcinogenic risks, rather than an accurate representation of carcinogenic risk. The true carcinogenic risk is likely to be less than the predicted value (USEPA, 1989).

Additional uncertainty is in the prediction of relative sensitivities of different species of animals and the applicability of animal data to humans.

There is a large degree of uncertainty associated with the oral to dermal adjustment factors (based on constituent-specific gastrointestinal absorption factors) used to transform the oral RfDs and CSFs based on administered doses to dermal RfDs and CSFs based on absorbed doses. It is not known if the adjustment factor results in an underestimation or overestimation of the actual toxicity associated with dermal exposure.

Uncertainty in Risk Characterization

The uncertainties identified in each component of risk assessment ultimately contribute to uncertainty in risk characterization. The addition of risks and HIs across pathways and chemicals contributes to uncertainty based on the interaction of chemicals such as additivity, synergism, potentiation, and susceptibility of exposed receptors. The simple assumption of additivity used for this site may or may not be accurate and may over- or under-estimate risk; however, a better alternative is not available at this time.

5.4 Human Health Risk Summary

The human health risk evaluation for surface soil, combined surface and subsurface soil, surface water, sediment, and groundwater at Site UXO-04 was performed in two phases. The first phase entailed comparing the site data to appropriate human health risk-based screening values and performing a risk ratio evaluation to determine if a baseline HHRA was necessary for any of the media. If any of the media indicated the potential for unacceptable human health risks based on the human health risk-based screening and risk ratio evaluation (COPCs were retained after this evaluation), that medium was carried forward to the second phase of evaluation, a complete HHRA.

The Phase I evaluation indicated that exposure to surface soil, combined surface and subsurface soil, and sediment would not result in any COPCs, or unacceptable risks to human health. Therefore, no further assessment of surface soil, combined surface and subsurface soil, and sediment, based on human health risks, is necessary, and a baseline HHRA was not performed for these media. The Phase I evaluation indicated the potential for risks associated with exposure to surface water and shallow groundwater, therefore, additional risk assessment was performed for surface water and groundwater.

The additional risk assessment for the groundwater involved evaluating the 2007 groundwater data from each monitoring well. This evaluation demonstrated that there would not be any unacceptable risks associated with potable use (or exposure) to groundwater at any of the monitoring wells, and further evaluation (past the COPC selection evaluation) was not performed for groundwater.

The complete HHRA evaluated exposure to:

- Surface water for current/future recreational adults, youth, and children

Table 5-4 and Tables 9.1.RME through 9.3.RME in **Appendix H-2** summarize the RME cancer risks and noncarcinogenic hazard indices associated with exposure to surface water**.**

Exposure to surface water by recreationalists does not result in any risks above USEPA target levels, and no further evaluation of surface water is necessary based on human health risks.

Therefore, based on the Phase I and Phase II human health risk evaluations for surface soil, subsurface soil, surface water, sediment, and groundwater, current or future human health exposure at Site UXO-04 would result in risks that are within acceptable risk limits, and residential use (or any other scenario, as the residential scenario is the most conservative scenario) is acceptable.

SECTION 6

Ecological Risk Assessment

6.1 Introduction

This section contains a screening-level ecological risk assessment (SLERA), constituting Steps 1 and 2 of the ecological risk assessment (ERA) process, and the first step (Step 3A) of a baseline ecological risk assessment (BERA) for aquatic habitats at Site UXO-04. Terrestrial habitats are not evaluated as part of this ERA based upon the future land use at the site (residential housing), which will preclude significant terrestrial ecological exposure pathways.

6.1.1 Guidance and Approach

ERAs are conducted using a tiered, step-wise approach and are punctuated with Scientific Management Decision Points (SMDPs). SMDPs represent points in the ERA process where agreement on conclusions, actions, or methodologies is needed so that the ERA process can continue (or terminate) in a technically defensible manner. The results of the ERA at a particular SMDP are used to determine how the ERA process should proceed, for example, to the next step in the process or directly to a later step. The process continues until a final decision has been reached (i.e., remedial action if unacceptable risks are identified, or no further action if risks are acceptable). The process can also be iterative if data needs are identified at any step; the needed data are collected and the process starts again at the point appropriate to the type of data collected.

This ERA was performed in accordance with applicable federal, state, and U.S. Navy ERA guidance, namely the USEPA *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (USEPA, 1997b), the *Navy Guidance for Conducting Ecological Risk Assessments* (NAVFAC, 2003), and the NCDENR *Guidelines for Performing Screening Level Ecological Risk Assessments within the North Carolina Division of Waste Management* (NCDENR, 2003a). The process for conducting a SLERA is generally the same in each of these guidance documents. When there were differences, the more conservative of the three approaches was taken when completing the SLERA. The USEPA Region 4 *Ecological Risk Assessment Bulletins – Supplement to RAGS* (USEPA, 2001a) were also considered.

The NCDENR guidance does not address the BERA phase of an ERA. The Navy ERA guidance, which describes a process consisting of eight steps organized into three tiers, is conceptually similar to the eight-step ERA process outlined in USEPA ERA guidance for the Superfund program (USEPA, 1997b). Steps 1 and 2 involve conducting a SLERA using very conservative assumptions. The BERA represents Steps 3 through 7. The BERA uses more realistic assumptions and site-specific data to refine the risk estimates from the SLERA for components that fail the initial screen. Step 8 addresses risk management issues. The major differences between the Navy ERA guidance and the USEPA ERA guidance are: (1) the Navy guidance provides clearly defined criteria for exiting the ERA process at specific

points; (2) the Navy guidance divides Step 3 (the first step of the BERA) into two distinct sub-steps (Steps 3A and 3B), with a potential exit point after Step 3A; and (3) the Navy guidance incorporates risk management considerations throughout all tiers of the ERA process.

The screening (preliminary) problem formulation is the first step of an ERA and establishes the goals, scope, and focus of the SLERA. Step 1 of the ERA process is intended to answer two main questions: (1) do complete exposure pathways exist?; and (2) are sufficient data available to conduct the SLERA? If no complete exposure pathways exist, the ERA process terminates at Step 1 with a conclusion of negligible risk. If one or more complete exposure pathways are known to, or are likely to, exist, the ERA process continues to Step 2 but only evaluates those pathways that have been determined to be significant. An evaluation of the available data is then conducted to determine if they are adequate to support the SLERA. If not, additional data are collected before the ERA process continues. The second step of the ERA process involves conducting a screening exposure assessment, a screening effects assessment, and a screening risk calculation (risk characterization).

The results of the SLERA are used to evaluate the potential for unacceptable ecological risks based upon very conservative assumptions. If the results of the SLERA suggest that further ecological risk evaluation is warranted, the ERA process proceeds to the BERA (Steps 3 through 7), which is a more detailed phase of the ERA process, for the exposure pathways, chemicals, receptors, and areas identified in the SLERA. As indicated above, the first step of the BERA (Step 3) is divided into two distinct sub-steps in Navy ERA guidance.

Step 3 of the USEPA ERA guidance consists of the following activities (USEPA, 1997b):

1. Refinement of the preliminary COPCs from the SLERA
2. Further characterizing the potential ecological effects of contaminants
3. Refining information on contaminant fate and transport, complete exposure pathways, and receptors potentially at risk
4. Selecting assessment endpoints
5. Refining the conceptual model and risk hypotheses from the SLERA

Step 3A of the Navy guidance (refinement of conservative exposure assumptions) corresponds to the first activity listed above for the USEPA ERA guidance. In Step 3A, a refined evaluation of exposure estimates is conducted using more realistic assumptions and additional methodologies relative to those used in the SLERA, which is intended to be a very conservative assessment. Examples of more realistic exposure assumptions include using central tendency (e.g., mean) estimates (rather than maximums) for media concentrations, bioaccumulation factors, and exposure parameters. Examples of additional methodologies include consideration of background concentrations, detection frequency, and measures of bioavailability (NAVFAC, 2003).

If risk estimates (and their associated uncertainty) are acceptable following Step 3A, the site will meet the conditions of the exit criterion specified in the Navy guidance. If the Step 3A evaluation does not support an acceptable risk determination, the site continues to Step 3B.

Step 3B of the Navy guidance (problem formulation) corresponds conceptually to the last four activities listed above for the USEPA ERA guidance. In Step 3B, the preliminary conceptual model developed during the SLERA is refined based upon the results of the Step 3A evaluation to develop a revised list of key receptors, complete and significant exposure pathways, chemicals of concern, assessment endpoints, measurement endpoints, and risk hypotheses. Based upon the revised conceptual model, the lines of evidence to be used in characterizing risk are determined. Agreement on the revised conceptual model, chemicals of concern, exposure pathways, endpoints, and risk hypotheses constitutes the SMDP at the end of Step 3 in both Navy and USEPA ERA guidance.

Following the completion of Step 3, a decision point is reached with two potential outcomes. If the refined risk estimates are acceptable for each selected assessment endpoint, the investigation proceeds to risk characterization (Step 7) to document this conclusion, and the ERA process terminates. If the uncertainties associated with the refined risk estimates are unacceptable and/or the risk estimates indicate that unacceptable risks may exist, site-specific studies might be required and the ERA process continues (Steps 4 through 6).

Step 7 consists of the documentation and synthesis of the information and data identified in Steps 1 through 3 (no additional study) or Steps 1 through 6 (additional study). In this step, risk is evaluated and characterized using both quantitative and qualitative methods. Conclusions are made as to whether or not there is a reasonable potential for unacceptable ecological risk, and if there is a potential for ecological risk, the magnitude of that risk. The results of the completed BERA (Step 7) are used to make any necessary risk management decisions (Step 8) related to current or future risks. Possible decisions include:

- There is adequate information to conclude that no significant ecological risks exist. The assessment should stop at Step 7.
- There is adequate information to conclude that ecological risks warrant remedial action. Whether or not remedial actions are taken, and the specific actions taken, will depend upon a number of risk management factors such as the results of any human health risk assessments and the potential impact of the remedial action itself on the habitats and biota present. This analysis would occur as part of Step 8.
- There is not adequate information to estimate risk or the risk estimate is believed to be too conservative or uncertain to recommend remediation. The assessment should be refined.

6.1.2 Objectives

The objectives of the SLERA are to:

- Determine if potential risks to ecological receptors warrant either: (1) additional assessment beyond the conservative screening steps of the ERA process (unacceptable ecological risks are possible); or (2) the removal of the site from further ecological consideration (no unacceptable ecological risks likely).
- Focus subsequent steps of the ERA process on the specific chemicals, pathways, and receptors of potential concern if unacceptable ecological risks are possible.

- Identify any data gaps or areas of unacceptable uncertainty that may require the collection of additional data to support ERA evaluations beyond the screening level.

If the site is not screened out in the SLERA, the evaluation continues to Step 3A. The general objectives of the Step 3A ERA are to:

- Refine the risk estimates from the SLERA to determine if risks to ecological receptors from site-related chemicals are likely to occur based upon realistic exposure scenarios.
- Focus subsequent data collection activities if potential risks are indicated, uncertainties are unacceptably high, and/or data gaps are identified.

At the conclusion of Step 3A, there are three possible decision points:

- **No further action is warranted.** This decision is appropriate if the evaluation indicates that sufficient data are available on which to base a conclusion of no unacceptable risk within acceptable uncertainty.
- **Further data are required.** This decision is appropriate if the evaluation indicates that the potential for unacceptable risk exists and additional data to refine these estimates (e.g., additional analytical data, measures of bioavailability) are needed. In this case, the site continues to Steps 3B and 4 of the ERA process.
- **Take remedial action.** This decision may be appropriate for circumstances in which the potential for unacceptable risks was identified but these potential risks could best be addressed through remedial action (e.g., presumptive remedy) rather than additional study.

6.2 Screening Ecological Risk Assessment

As discussed in Section 6.1, Steps 1 and 2 of the ERA process constitute the SLERA, which is conducted using intentionally conservative assumptions. The principal components of the SLERA are problem formulation, exposure estimation, effects evaluation, and risk calculation.

6.2.1 Screening Problem Formulation

The screening (preliminary) problem formulation establishes the goals, scope, and focus of the SLERA. As part of problem formulation, the ecological setting of the site is characterized in terms of the habitats and biota known or likely to be present. The concentrations and types of chemicals that are present in ecologically relevant media (surface water, sediment, and groundwater at Site UXO-04) are also described. A preliminary conceptual model is developed that describes potential sources, potential transport pathways, potential exposure pathways and routes, and potential receptors. Assessment endpoints, measurement endpoints, and risk hypotheses are then selected to evaluate those receptors for which complete and potentially significant exposure pathways are likely to exist. The fate, transport, and toxicological properties of the chemicals present in site media, particularly the potential to bioaccumulate, are also considered during this process.

Ecological Setting

This section describes the ecological setting at Site UXO-04 including the site operations history and ecological conditions at the site. Information is provided to identify the general habitat that is present at the site, and what fate and transport mechanisms are likely occurring.

Facility and Site Operations Summary: MCB Camp Lejeune is bisected by the New River, which flows southeasterly and forms a large estuary before entering the Atlantic Ocean. The Atlantic Ocean forms the southeastern boundary of the facility. The western and northwestern boundaries are U.S. Route 17 and North Carolina State Route 24, respectively. The City of Jacksonville, North Carolina, is located immediately northwest of MCB Camp Lejeune.

A majority of the land surrounding the facility is used for agriculture. Estuaries along the coast support commercial fishing, and residential resort areas are located adjacent to MCB Camp Lejeune along the Atlantic Ocean.

The planned PPV development consists of approximately 133 acres in the northern portion of MCB Camp Lejeune. The Northeast River defines the southern boundary, Scales Creek flows near the northwestern boundary, and an unnamed tributary flows near the northeastern boundary. The planned PPV development is accessible by Florence Road from the west and Camp Knox Road from the north.

The existing Knox Trailer Park covers approximately 38 acres of the planned PPV. The trailer park property is level and vegetated with grass and minimal tree cover. All residents have vacated the trailer park and, as of the date of this report, the remaining mobile homes were planned to be removed from the site. A network of narrow roadways covers the trailer park.

The remaining area of the planned PPV development consists of approximately 95 acres of woodland that surrounds the Knox Trailer Park to the north, east, and west. The density of undergrowth in the wooded area is light to moderate. Section 2 of this ESI Report provides further details related to the site history and site conditions.

Regional Ecological Summary: Camp Lejeune is located within the headwaters of the New River Watershed. The topography along this coastal region is generally flat to gently rolling which slopes from an altitude of 63 feet above sea level to sea level. Approximately 59 percent of the New River Watershed is forested, with croplands and pastures making up 35 percent and the remaining area considered urban.

This portion of the North Carolina coast is a diverse region containing over 30 miles of sandy beaches which make up a continuously altering coastline. Many areas of the North Carolina coastline are highly erodable due to the sandy substrate and violent currents. These sandy coastlines transition into a region of pines, scrub oaks, sweetgum, and dogwood. Wire grass is the primary undergrowth species of the area. These areas are interspersed with bottomland hardwood forests that were once more prevalent in this region. These forest types are dominated by bald cypress and swamp tupelo, with white cedar being common on organic substrates underlain by sand. Croplands are also common in this area and are predominantly corn, cotton, peanuts, and tobacco. The climate in

Jacksonville, NC is characterized by short, mild winters and long, hot, humid summers. Average annual net precipitation is approximately 50 inches. Ambient air temperatures generally range from 33 to 53 ºF in the winter months, and 71°F to 88°F during the summer months.

Site UXO-04 Ecological Setting: Site UXO-04 is near sea level and has little topographic relief. Most of the Base has an elevation range of 20 to 40 feet above mean sea level. As shown on **Figure 6-1**, the Knox Trailer Park site is bordered by Northeast Creek to the south, a small unnamed tributary of Northeast Creek to the east, and Scales Creek to the west. Groundwater flow at the site is generally east-southeast towards Northeast Creek and its unnamed tributary. More specific detail regarding the ecological setting is provided below.

Onsite Habitats and Associated Wildlife. Three onsite terrestrial habitats currently occur at Site UXO-04, maintained grassland with some ruderal (i.e., roadways) areas, mixed forest areas, and evergreen forest areas (**Figure 6-1**):

- **Maintained Grasslands.** The onsite grassland habitat represents approximately 3.61 acres in the central portion of the site. The dominant vegetation of this habitat type is comprised of short grasses, weeds, wildflowers, and other forbs. Wildlife expected include, but are not limited to, the least shrew, meadow vole, eastern cottontail rabbit, raccoon, and a variety of bird species such as the northern mockingbird, grackles, mourning dove, northern bobwhite, eastern screech owl, and American woodcock.
- **Mixed and Evergreen Forest.** The wooded areas surrounding the grassland habitats represent approximately 11.6 acres of pine and 50.7 acres of mixed pine and hardwood bottomland forest. The predominate vegetation in the wooded areas are tall trees, including sweetgum, red maple, yellow poplar, Chinese privet, and pine. The understory is predominantly void of shrubs, however, poison ivy, arrowhead, and Virginia creeper are the prevalent understory species that may occur. Wildlife expected include, but are not limited to, northern mockingbird, eastern screech owl, American woodcock, eastern cottontail rabbit, mourning dove, northern bobwhite, house finch, Virginia opossum, short-tailed shrew, raccoon, long-tailed weasel, striped skunk, red-tailed hawk, great horned owl, and various terrestrial insects.

The mixed forested habitat extends beyond the site boundary to the east, north, and west. On-site terrestrial habitats will be heavily altered under future land use scenarios when the site is converted to residential housing. Under the future scenario, the site will be cleared of a significant portion of the forest habitat and will be covered by residential housing and associated pavement rendering the site unattractive to wildlife and eliminating significant exposure to the wildlife currently using the abandoned site.

Northeast Creek, its tributaries, and Scales Creek found within and adjacent to the site provide suitable habitat to support some aquatic resources and riparian wildlife. The area is tidally influenced and saline water is present in the onsite and adjacent creeks. The creeks generally flow southward, then eastward, bounding the southern portion of Site UXO-04 until it discharges into the New River. The New River then drains to Onslow Bay at the Atlantic Ocean. The banks of the creeks are generally less than 3 feet high and the riparian area consist of dense mixed forest. Water depth in Northeast and Scales Creeks is several feet. Northeast Creek is hundreds of feet wide by Knox Park. Scales Creek and the unnamed

tributary to Northeast Creek are 50 to 100 feet wide as they approach Northeast Creek. The threatened American alligator is known to inhabit Scales Creek to the west of the site. Similar habitat is found in the unnamed tributary of Northeast Creek into which the site drains on the east side. Thus, the American alligator would be expected to inhabit this water body as well. Other likely wildlife would include fish, herons, egrets, kingfishers, osprey, and other piscivorous birds, reptiles such as turtles and snakes, and mammals such as mink, muskrat, and beaver.

Nearby creeks could support several aquatic species as well as terrestrial species that depend upon aquatic species for food. Aquatic plants provide food for herbivorous species, such as shad, minnow, and various invertebrates. Riparian vegetation provides food for herbivorous species, such as the eastern cottontail rabbit. Omnivores that are expected to use the creek include the raccoon, mink, and great blue heron. Piscivores such as large fish, great blue heron, and snowy egret may also be present onsite.

Table 6-1 presents a list of species that could occur at the site and is based upon the habitat requirements of various wildlife and overlapping habitat characteristics at Site UXO-04 under current conditions.[2] As noted previously, terrestrial habitats on the site will be heavily altered under future use scenarios.

Threatened and Endangered Species/Sensitive Habitats. Table 6-2 presents the federally listed threatened and endangered species potentially found in Onslow County for terrestrial and aquatic habitats. A qualitative evaluation of why these species are not expected at the site is provided below.

A bald eagle nest has been documented on Camp Lejeune. The nest is located at the junction of Sneads Creek and the New River. Three protective buffers that restrict ground and air-use activities have been established at approximately 750 feet, 1,000 feet, and 1,500 feet from the nest site. The UXO-04 site is not within any of these buffer zones. In addition, there is no habitat present on or adjacent to the site that would constitute preferential foraging habitat for this species.

Camp Lejeune entered into Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) regarding protection and management of the red-cockaded woodpecker. Camp Lejeune has worked with the USFWS to establish guidelines for military training in red-cockaded woodpecker cluster sites. Additionally, the Base has implemented measures to properly manage the red-cockaded woodpecker habitats located on base (mature loblolly pine and longleaf and pond pine areas). Camp Lejeune's red-cockaded woodpecker population has been continually monitored since 1985. Reproductive success, population demographics, and habitat use are recorded annually to help successfully manage the population while facilitating the military use of the land. No habitat areas for this species are present on Site UXO-04.

Suitable habitat for the piping plover does not exist at the site. The Atlantic Coast populations of piping plovers prefer sandy beaches close to the primary dune of barrier islands and coastlines. They prefer sparsely vegetated open sand, gravel, or cobble for a nest site. They forage along the rack line where the tide washes up onto the beach. As such, it is

[2] The list is based on habitat types and quality in the area and not on actual observations; therefore, it is not expected to be completely conclusive. Additionally, many of the species identified in **Table 6-1** are not likely frequent users of Site UXO-04.

unlikely that piping plovers are located on or adjacent to the site. Since the site is not located along the Atlantic Ocean coastline, piping plovers are not expected to be present for any reason (feeding, breeding, or nesting).

The American alligator has been observed living in Scales Creek west of the site. The unnamed tributary east of Knox Park is a similar habitat that could also support this species. However, the American alligator is listed based upon similarity of appearance and is not threatened or endangered itself.

The UXO-04 site is approximately 12.5 miles from the Atlantic Coast and, as such, all of the federally protected marine species (green sea turtle, leatherback sea turtle, loggerhead sea turtle, and West Indian manatee) listed in **Table 6-2** are unlikely to occur on or adjacent to the site.

The eastern cougar is the only federally listed mammalian species that could be in Onslow County. Suitable habitat for the eastern cougar does not exist at the site. As an active military installation, Camp Lejeune, including the UXO-04 site, does not provide the large wilderness area the eastern cougar requires.

Two (rough-leaved loosestrife and seabeach amaranth) of the four federally listed plant species have been identified on the base. Approximately 22 rough-leaved loosestrife sites are found on Camp Lejeune with 76 acres buffered and marked to protect this species. Rough-leaved loosestrife sites are visited annually to visually inspect for changes in extent and apparent health. Approximately half of the rough-leaved loosestrife sites occur within protected red-cockaded woodpecker sites, obviating the need for marking each of these sites individually. The other sites fall mostly within the Greater Sandy Run Area. None of these sites are located on or adjacent to the site.

The seabeach amaranth has been described as a dune-builder because it frequently occupies areas seaward of primary dunes often growing closer to the high tide line than any other coastal plant. As such, this plant is generally found along Onslow Beach and thus is not located on or adjacent to the site.

No critical or sensitive habitats, or vegetated wetlands, are located within a one mile radius of the site.

Summary of Available Analytical Data

Analytical data used for this ERA (see Section 4 and **Appendix J**) were collected as part of the Phase I and Phase II Environmental Investigation conducted between November 2005 and October 2007. Phase I and Phase II both included environmental sampling of surface and subsurface soil, groundwater, sediment, and surface water. The extent and sample locations of the Phase II environmental sampling was based upon the results of the Phase I environmental investigation. Soil data collected during Phase I and Phase II were not evaluated in this ERA because future land use precludes significant terrestrial exposure pathways for ecological receptors. Detailed information on the sampling and data are presented in Sections 3 and 4.

Surface Water and Sediment: Data from 10 surface water and sediment samples collected in 2006 and seven surface water and sediment samples collected in 2007 from Northeast Creek and its unnamed tributary (**Figure 3-1**) were evaluated in the ERA.

Groundwater: Groundwater samples were collected from 15 onsite wells adjacent to Northeast and Scales Creeks during the Phase I and Phase II sampling events. Data were evaluated to assess potential transport to these surface water bodies. **Figure 3-1** shows the well locations. Only data from the shallow aquifer, which is hydrologically connected to down gradient surface water, were evaluated in this ERA.

Preliminary Conceptual Model

Information on the habitat features of the site and on the fate and transport of the chemicals detected in surface water, sediment, and groundwater were used to build the preliminary conceptual model. The preliminary conceptual model relates potentially exposed receptor populations with potential sources based upon physical site characteristics and complete exposure pathways. Important components of the conceptual model are the identification of potential source areas (including non-site-related sources), transport pathways, exposure media, exposure pathways and routes, and receptor groups. Actual or potential exposures of ecological receptors associated with a site are determined by identifying the most likely, and most important, pathways of contaminant release and transport. A complete exposure pathway has three components: (1) a source of contaminants that results in a release to the environment, (2) a pathway of contaminant transport through an environmental medium, and (3) an exposure or contact point for an ecological receptor. **Figure 6-2** illustrates a diagrammatic conceptual model for Site UXO-04. Key components of this conceptual model are discussed in the following subsections.

Potential Sources: Section 2 details past site activities, and the results of the recent sampling/investigations are presented in Section 4 of this ESI Report. Portions of the site have been used, historically, for military training (involving small arms fire and small detonations) and for residential housing but no specific source areas have been identified on the site.

Transport Pathways and Exposure Media: A transport pathway describes the mechanisms whereby site-related chemicals, once released, may be transported from a source to ecologically relevant media (such as surface water) where exposures may occur. These transport pathways are shown on **Figure 6-2**.

The primary release mechanisms and transport pathways at the site include:

- Infiltration, percolation, and leaching of contaminants to groundwater and subsequent discharge to the surface water and sediment of adjacent creeks
- Surface runoff to the surface water and sediment of adjacent creeks
- Uptake from the surface water and sediment of adjacent creeks and accumulation in the tissues of aquatic biota

Concentration gradients from potential source areas through the appropriate pathway(s) are evaluated in order to determine if there are any links between site contamination and potential ecological receptors (habitats and biota).

Exposure media for ecological receptors are typically limited to surface water, surface sediment, and surface soil. Surface soil is not evaluated in this ERA based upon future land uses of the terrestrial portions of the site (residential housing), which will limit potential ecological exposures. Groundwater is generally considered only as a transport medium since there are no ecological exposures to groundwater until it discharges to a water body or surfaces as a seep. Air is not addressed in this ERA since this medium is not likely to result in significant contributions to total exposures.

Exposure Pathways and Routes: An exposure pathway links a source of contamination with one or more receptors through exposure via one or more media and exposure routes. Exposure, and thus potential risk, can only occur if complete exposure pathways exist. An exposure pathway can be described as the physical course that a chemical takes from the point of release to a receptor. Chemical intake or route of exposure is the means by which a chemical enters a receptor. For an exposure pathway to be complete, all of the following components must be present:

- A source of contaminants
- A mechanism of chemical release and transport
- One or more environmental transport media
- An exposure point
- An exposure route
- A receptor or exposed population

In the absence of any one of these components, an exposure pathway is incomplete and, by definition, there is no risk or hazard. Based upon information from the ecological site visit and Ecological Checklist (**Appendix I-1**), the most plausible ecological exposure pathways at Site UXO-04 are (**Figure 6-2**):

- Potential ingestion of site-related chemicals via the food chain by avian and mammalian aquatic receptors
- Direct contact with site-related chemicals in surface water and sediment by aquatic and benthic organisms

As discussed previously, there are no complete exposure pathways for terrestrial receptors based upon the future use of the site.

An exposure route describes the specific mechanism(s) by which a receptor is exposed to a chemical present in an environmental medium. Animals may be exposed to chemicals through: (1) the inhalation of gaseous chemicals or of chemicals adhered to particulate matter; (2) the incidental ingestion of contaminated abiotic media (sediment) during feeding activities; (3) the ingestion of contaminated water; (4) the ingestion of contaminated plant and/or animal tissues for chemicals which have entered food webs; and/or (5) direct (dermal) contact with contaminated abiotic media.

The contribution to the total dose from the inhalation route is generally insignificant for upper trophic level ecological receptors relative to ingestion pathways. Hence, the air pathway is not generally considered for ecological receptors. Exposure to chemicals present in sediment via dermal contact may occur but is unlikely to represent a major exposure pathway for most upper trophic level receptors because fur, feathers, and chitinous

exoskeletons minimize transfer of chemicals across dermal tissue. Direct contact is, however, considered for lower trophic level receptors (benthic invertebrates).

Direct ingestion of drinking water is only considered when the salinity is below 15 parts per thousand, the approximate toxic threshold for wildlife receptors (Humphreys, 1988). Based upon available conductivity data (salinity was not directly measured), the salinity in the water bodies on and adjacent to the site would tend to be above this threshold. Thus, exposure via direct ingestion of drinking water is not included in this ERA.

Receptors: Because of the complexity of natural systems, it is generally not possible to directly assess the potential impacts to all ecological receptors present at a site. Therefore, specific receptor species or species groups (e.g., great blue heron) are often selected as surrogates to evaluate potential risks to larger portions of the ecological community (guilds; e.g., piscivorous birds) used to represent the assessment endpoints (e.g., survival and reproduction of piscivorous birds). Selection criteria typically include those species that:

- Are known to occur, or are likely to occur, at the site
- Have a particular ecological, economic, or aesthetic value
- Are representative of taxonomic groups, life history traits, and/or trophic levels in the habitats present at the site for which complete exposure pathways are likely to exist
- Can, because of toxicological sensitivity or potential exposure magnitude, be expected to represent potentially sensitive populations at the site

The following upper trophic level receptor species have been chosen for exposure modeling based upon the criteria listed above:

- Mink (*Mustela vison*) - aquatic mammalian piscivore
- Great blue heron (*Ardea herodias*) - aquatic avian piscivore

Upper trophic level receptor species quantitatively evaluated in the ERA were limited to birds and mammals, the taxonomic groups with the most available information regarding exposure and toxicological effects. Lower trophic level receptors were evaluated based upon those taxonomic groupings for which medium-specific screening values have been developed. As such, specific species of aquatic biota (fish and benthic invertebrates) were not chosen as receptors because of the limited information available for specific species and because aquatic biota are evaluated on a community level via a comparison of surface water and sediment concentrations with medium-specific screening values.

Amphibians are typically selected as a receptor group only when freshwater aquatic or wetland habitats are present on, or in the contaminant transport pathways (as defined in the conceptual model) of, a site, which is not the case at Site UXO-04. Because of the limited amount of toxicological data available for reptiles, exposures via the food web for this taxonomic group were evaluated using bird and mammal receptor species as surrogates. Similarly, potential risks to reptiles from direct exposures to surface water and sediment are evaluated using screening values developed for other taxonomic groups (described above).

Endpoints and Risk Hypotheses: The conclusion of the screening problem formulation includes the selection of ecological endpoints and risk hypotheses, which are based upon

the preliminary conceptual model. Two types of endpoints, assessment endpoints and measurement endpoints, are defined as part of the ERA process (USEPA, 1997b). An assessment endpoint is an explicit expression of the environmental component or value that is to be protected. A measurement endpoint is a measurable ecological characteristic that is related to the component or value chosen as the assessment endpoint. The considerations for selecting assessment and measurement endpoints are summarized in USEPA (1997a) and discussed in detail in Suter (1989, 1990, 1993). Risk hypotheses are testable hypotheses about the relationship among the assessment endpoints and their predicted responses when exposed to contaminants.

Endpoints define ecological attributes that are to be protected (assessment endpoints) and measurable characteristics of those attributes (measurement endpoints) that can be used to gauge the degree of impact that has or may occur. Assessment endpoints most often relate to attributes of biological populations or communities, and are intended to focus the risk assessment on particular components of the ecosystem that could be adversely affected by chemicals attributable to the site (USEPA, 1997b). Assessment endpoints contain an entity (e.g., raccoon population) and an attribute of that entity (e.g., survival rate). Individual assessment endpoints usually encompass a group of species or populations (the receptor) with some common characteristic, such as specific exposure route or contaminant sensitivity, with the receptor then used to represent the assessment endpoint in the risk evaluation.

Assessment and measurement endpoints may involve ecological components from any level of biological organization, from individual organisms to the ecosystem itself. Effects on individual organisms are important for some receptors, such as rare and endangered species; population- and community-level effects are typically more relevant to ecosystems. Population- and community-level effects are usually difficult to evaluate directly without long-term and extensive study. However, measurement endpoint evaluations at the individual level, such as an evaluation of the effects of chemical exposure on reproduction, can be used to predict effects on an assessment endpoint at the population or community level. In addition, use of criteria values designed to protect the majority (e.g., 95 percent) of the components of a community (e.g., Ambient Water Quality Criteria for the Protection of Aquatic Life) can be useful in evaluating potential community- and/or population-level effects.

Table 6-3 shows the preliminary assessment endpoints, risk hypotheses, and measurement endpoints used in the screening portion (Steps 1 and 2) of the ERA. **Table 6-3** also shows the receptors associated with each endpoint.

6.2.2 Screening Exposure Estimation

Maximum concentrations in surface water, sediment, and groundwater were used in the screening portion of the ERA to conservatively estimate potential chemical exposures for the ecological receptors selected to represent the assessment endpoints. Food web exposures for upper trophic level receptor species were determined by estimating the chemical-specific concentrations in each dietary component using uptake and food web models. Incidental ingestion of sediment was also included when calculating the total level of exposure, where appropriate. Maximum sediment concentrations were used in all screening food web calculations to provide a conservative assessment.

For conservatism, the maximum reporting limit for chemicals analyzed for but not detected was also compared to medium-specific screening values and (where applicable) used for food web exposure modeling. This was done to determine if detection limits were less than or equal to chemical concentrations at which potential adverse effects to ecological receptors could occur.

Selection Criteria for Analytical Data

Available analytical data (described above) were selected for use in the ERA based upon the following:

- Data must have been validated by a qualified data validator using acceptable data validation methods. Rejected (R) values were not used in the ERA. Unqualified data and data qualified as J, L, or K were treated as detected. Data qualified as U or B were treated as non-detected.
- For samples with duplicate analyses, the higher of the two concentrations was used when both values were detects or when both values were non-detects. In cases where one result was a detection and the other a non-detect, the detected value was used in the assessment.

Exposure Estimation

Upper trophic level receptor exposures (via the food web) to chemicals present in sediment were determined by estimating the concentration of each bioaccumulating chemical in each relevant dietary component. Incidental ingestion of sediment was included, on a receptor-specific basis where appropriate, when calculating the total level of exposure. Direct ingestion of surface water was not considered at this site due to the saline nature of the waters at Site UXO-04.

Only those chemicals with the potential to bioaccumulate significantly were evaluated for exposures via food webs. This list of bioaccumulating chemicals is provided in **Table 6-4** for relevant constituents and is based upon the list provided in Table 4-2 of USEPA (2000).

Dietary items for which tissue concentrations were modeled included fish. For the screening portion of the ERA, the uptake of chemicals from the abiotic media into these food items was based upon conservative (e.g., maximum or 90th percentile) bioaccumulation factors (BAFs) obtained from the literature, where available. Default factors of one were used only when data were unavailable for a chemical in the literature. The methodology and models used to derive these tissue concentration estimates are described below.

Concentrations in Food Items: The concentrations of chemicals in the food item were estimated rather than measured. For the purposes of exposure estimation, partitioning of constituents from environmental media to prey was estimated from literature values. In all cases, it was assumed that tissue uptake occurs under steady-state conditions.

Fish. Tissue concentrations in whole-body fish were estimated by multiplying the maximum sediment concentration for each chemical by chemical-specific sediment-to-fish BAFs obtained from the literature. The BAF values used were based upon the ratio between dry-weight sediment and dry-weight fish tissue. Literature values based upon the ratio between dry-weight sediment and wet-weight fish tissue were converted to a dry-weight

basis by dividing the wet-weight BAF by the estimated solids content for fish (25 percent [0.25]; USEPA, 1993a). For chemicals without literature-based sediment-to-fish BAFs, a BAF of 1.0 was assumed. The sediment-to-fish BAFs used in the screening portion of the ERA are shown in **Table 6-5**.

Dietary Intakes: Dietary intakes for each upper trophic level receptor were calculated using the following formula (modified from Suter et. al. [2000]):

$$E_j = \left[\left(Med_{jk} * Pk * FIR \right) + \left(\sum_{i-1}^{N} B_{ij} * P_i * FIR \right) \right] * AUF$$

where:

E_j	= total dietary exposure (mg/kg/d)
Med_{jk}	= concentration of chemical (j) in medium (k) (mg/kg dry weight)
P_k	= ingestion rate of medium (k) as proportion of diet
FIR	= species-specific food ingestion rate (kg food/kg body weight/d)
B_{ij}	= concentration of chemical (j) in biota type (i) (mg/kg dry weight)
P_i	= proportion of biota type (i) in diet
AUF	= area use factor (unitless)

Receptor-specific values used as inputs to this equation for the screening portion of the ERA are provided in **Table 6-6**. Consistent with the conservative approach used for a SLERA, the minimum body weight and the maximum food ingestion rate from the scientific literature were used for each receptor. When measured food ingestion rates were not available for a receptor from the literature, the rates were estimated using allometric equations from Nagy (2001) (calculated maximum ingestion rates using allometric equations were based upon the maximum body weight). It was assumed that chemicals were 100 percent bioavailable to the receptor and it was also assumed that each receptor spent 100 percent of its time on the site (i.e., an area use factor [AUF] of 1.0 was assumed).

6.2.3 Screening Effects Evaluation

The purpose of the screening effects evaluation is to establish chemical exposure levels (screening values) that represent conservative thresholds for adverse ecological effects. One set of screening values is typically developed for each selected assessment endpoint.

Medium-Specific Screening Values

Medium-specific screening values were established for each ecologically relevant media. Based upon the preliminary conceptual model (**Figure 6-2**), direct exposure to surface water and sediment, and indirect exposure to groundwater, are potentially complete pathways.

The Step 2 screen (using maximum concentrations) used the following screening values (the actual values are presented in the Step 2 screening tables):

- For surface water (and groundwater), the primary screening values were the USEPA Region 4 chronic values (USEPA, 2001b). For those constituents with specific criteria for the State of North Carolina, both the USEPA Region 4 and NCDENR values were used in the screening evaluation.

- For sediment, only the USEPA Region 4 values (USEPA, 2001b) were used in the screening evaluation per NCDENR guidance. When both an effects value and a practical quantification limit (PQL) value were available, the effects value was used for the screening evaluation.

For constituents that were retained during the Step 2 screen, alternate screening values from the literature were considered in Step 3A. Alternate surface water values (also used for the groundwater screen), for chemicals known to bioaccumulate in aquatic food webs, were based upon the final chronic value (rather than the final residue value) as per USEPA (1996b, 2006a) and Suter and Tsao (1996) when possible. The use of final chronic values is intended to protect aquatic receptors from direct exposures to chemicals in surface water, rather than from exposure via food webs. Potential risks to upper trophic level receptors from food web exposures (tissue residues) were evaluated separately using the ingestion-based screening values. For metals, both unfiltered (total) and filtered (dissolved) concentrations, if available, were included in the Step 3A comparison.

For sediment, available screening values were generally based upon two approaches. The first approach relied upon studies that correlate chemical concentrations in sediment with some measure of benthic community impairment. This approach is known as the Screening Level Concentration (SLC) approach. Examples of SLC-based values are Effects Range-Low (ER-L) values. Since these screening values do not consider site-specific bioavailability and correlate effects to each individual chemical without accounting for the possible effects that might be produced by other chemicals present in the sediment samples used to develop the value, their use tends to result in conservative risk estimates. For constituents without readily available SLC-based sediment screening values, a second approach, equilibrium partitioning (EqP), is appropriate for developing sediment screening values for non-ionic (non-polar) organic chemicals (USEPA, 1993b, 1996b). EqP-based values were calculated using the following formula (USEPA, 1996b, 1999):

$$Value = (f_{oc})\,(K_{oc})\,(FCV)$$

where:

	Value	=	Equilibrium partitioning-based value (µg/kg)
	f_{oc}	=	Total organic carbon content (percent, as a fraction)
	K_{oc}	=	Normalized adsorption coefficient (L/kg)
	FCV	=	Chronic AWQC or its equivalent (µg/L)

The median measured TOC (f_{oc}) value from site water bodies (5.5 percent) was used in this formula. K_{oc} values were estimated from K_{ow} values using the formula from USEPA (1996b):

$$Log_{10}K_{oc} = 0.00028 + 0.983\,(Log_{10}K_{ow})$$

Calculated EqP values are derived in **Appendix I-2**. The actual values used in the Step 3A screen are presented in the Step 3A screening tables for all media.

Ingestion Screening Values

Ingestion-based screening values for dietary exposures were derived for each mammalian and avian receptor and chemical evaluated in the ERA. Toxicological information from the literature for wildlife species most closely related to the receptor species was used, when available, but was supplemented by laboratory studies of non-wildlife species (e.g., chickens

and laboratory mice) where necessary. The ingestion screening values are expressed as milligrams of the chemical per kilogram body weight of the receptor per day (mg/kg-BW/day).

Survival, growth, and reproduction were emphasized as toxicological endpoints because they are the most relevant, ecologically, to maintaining viable populations and because they are generally the most studied toxicological endpoints for ecological receptors. If several chronic toxicological studies were available from the literature, the most appropriate study was selected for each receptor species based upon study design, study methodology, study duration, study endpoint, and test species. Ingestion-based screening values were derived for both chronic No Observed Adverse Effect Level (NOAEL) and chronic Lowest Observed Effect Level (LOAEL) endpoints. The applicable uncertainty factors from **Table 6-7** were applied to derive these values, where necessary. The ingestion-based screening values for mammals and birds are listed in **Tables 6-8 and 6-9,** respectively.

6.2.4 Screening Risk Calculation

The screening risk calculation is the final step in a SLERA. The outcome of this step is a list of COPCs for each medium-pathway-receptor combination evaluated or a conclusion of acceptable risk. The exposure concentration (abiotic media) or exposure dose (upper trophic level receptor species) is compared with the corresponding screening value to derive risk estimates using the HQ method. In this step, HQs are calculated by dividing the maximum chemical concentration in the medium being evaluated by the corresponding medium-specific screening value or by dividing the maximum exposure dose by the corresponding ingestion-based screening value. HQs exceeding one indicate the potential for unacceptable risk since the chemical concentration or dose (exposure) equals or exceeds the screening value (effect). However, screening values and exposure estimates are derived using intentionally conservative assumptions at the screening level such that HQs greater than or equal to one do not necessarily indicate that risks are present or impacts are occurring. Rather, it identifies chemical-pathway-receptor combinations requiring further evaluation (in Step 3A) using more realistic exposure scenarios and assumptions. Following the same reasoning, HQs less than or equal to one indicate that risks are unlikely, enabling a conclusion of negligible risk to be reached with high confidence.

North Carolina guidance dictates that constituents be placed into the following categories during the Step 2 media screen:

- Category 1 – Constituents whose maximum detected value exceeds the medium-specific USEPA Region 4 screening value.
- Category 2 – Undetected constituents whose maximum detection limit exceeds the USEPA Region 4 screening value.
- Category 3 – Constituents that have no USEPA Region 4 screening value but were detected in at least one sample of that medium.
- Category 4 – Undetected constituents that lack USEPA Region 4 screening values.
- Category 5 – Constituents whose maximum detected value or maximum detection limit (for undetected constituents) exceeds the NC Surface Water Quality Standards.

Surface Water

Maximum surface water concentrations are compared to USEPA Region 4 screening values and NCDENR criteria in **Table 6-10**. Based upon this comparison, 15 inorganic and 135 organic constituents were identified as COPCs as follows:

- Detected concentrations of lead, silver, dieldrin, and heptachlor epoxide exceeded the Region 4 screening value (Category 1); silver, dieldrin, and heptachlor also exceeded the NCDENR criteria (Category 5).
- Maximum detection limits exceeded the Region 4 screening value for 5 inorganics, 20 PCBs/pesticides 7 SVOCs, and 1 VOC (Category 2); all of the inorganics and 18 of the PCBs/pesticides also exceeded the NCDENR criteria (Category 5).
- Eight inorganics, 3 pesticides/PCBs, 1 SVOC, 4 VOCs, and 2 TPHs were detected but lacked Region 4 and NCDENR screening values (Category 3).
- Two pesticides/PCBs, 49 SVOCs, 14 explosives, 29 VOCs, and 1 TPH lacked Region 4 and NCDENR values but were not detected (Category 4).

Sediment

Maximum sediment concentrations are compared to USEPA Region 4 screening values in **Table 6-11**. Based upon this comparison, 14 inorganic and 157 organic constituents were identified as COPCs as follows:

- Detected concentrations of copper, lead, mercury, DDD, DDE, DDT, dieldrin, endrin, alpha-chlordane, gamma-chlordane, benzo(a)pyrene, chrysene, fluoranthene, pyrene, and bis(2-ethylhexyl)phthalate exceeded the Region 4 screening value (Category 1).
- Maximum detection limits exceeded the Region 4 screening value for silver, 7 PCB Aroclors, lindane, and 7 SVOCs (Category 2).
- Eight inorganics, 3 pesticides, 8 SVOCs, 1 explosive, 4 VOCs, and 2 TPHs were detected but lacked Region 4 screening values (Category 3).
- Two inorganics, 10 pesticides, 43 SVOCs, 14 explosives, 44 VOCs, and 1 TPH lacked Region 4 screening values but were not detected (Category 4).

Groundwater

Based upon the conceptual model (**Figure 6-2**), indirect exposure via groundwater is a potentially complete pathway at the site. Although ecological receptors do not typically have direct exposure to groundwater, surface water screening values were compared to analytical groundwater data in order to provide a conservative evaluation of the potential for significant contaminant transport via groundwater to adjacent water bodies. For Step 2, no attenuation or dilution of constituent concentrations in groundwater was considered, for conservatism.

Maximum surface water concentrations are compared to USEPA Region 4 screening values and NCDENR criteria in **Table 6-12**. Based upon this comparison, 13 inorganic and 136 organic constituents were identified as COPCs as follows:

- Detected concentrations of chromium, mercury, nickel, silver, and heptachlor epoxide exceeded the Region 4 screening value (Category 1). The four metals also exceeded the NCDENR criteria (Category 5); there was no NCDENR criterion for heptachlor epoxide.

- Maximum detection limits exceeded the Region 4 screening value for cyanide, 23 PCBs/pesticides, 6 SVOCs, and 4 VOCs (Category 2); cyanide and 20 of the PCBs/ pesticides also exceeded the NCDENR criteria (Category 5).
- Seven inorganics, 1 pesticide, 3 SVOCs, 5 explosives, 1 VOC, and 2 TPHs were detected but lacked Region 4 and NCDENR screening values (Category 3).
- Antimony, 4 pesticides, 47 SVOCs, 9 explosives, 29 VOCs, and 1 TPH lacked Region 4 and NCDENR values but were not detected (Category 4).

Food Web Exposures

Hazard quotients for each upper trophic level receptor, based upon maximum exposure doses, are provided in **Table 6-13.** Based upon a comparison to NOAELs, mercury, 4,4'-DDE, six PCBs (Aroclors-1221, 1232, 1242, 1248, 1254, and 1260), and hexachlorobenzene had HQs exceeding one for one or more receptors and were identified as COPCs. The exceedances for the Aroclors and hexachlorobenzene were based upon maximum reporting limits. Ingestion screening values were not available for two SVOCs (**Table 6-13**), neither of which was detected in site media.

6.2.5 Screening Risk Conclusions and Scientific Management Decision Point

COPCs were identified in each of the media evaluated, as well as for food web exposures (**Table 6-14**). Constituents retained based upon a detected concentration exceeding an available screening value included 12 percent of constituents analyzed in surface water, 15 percent of those in groundwater, and 22 percent of those in sediment. The results of the SLERA indicate that proceeding to Step 3A is warranted.

6.3 Baseline Ecological Risk Assessment

The SLERA resulted in a set of COPCs for each medium and for food web exposures. This set of COPCs includes chemicals with HQs exceeding one (based upon maximum exposures), detected chemicals for which toxicological data (screening values) were not available, and undetected chemicals for which screening values were unavailable.

6.3.1 Refinement of Conservative Screening Assumptions

According to Superfund guidance (USEPA, 1997b), Step 3 initiates the problem formulation phase of the BERA. Under Navy guidance (NAVFAC, 2003), the BERA begins with a preliminary step (Step 3A) in which the conservative assumptions employed in the SLERA are refined and risk estimates are recalculated using the same basic conceptual model for the site. In addition, the re-evaluation may include consideration of other factors such as background data, the frequency at which chemicals were detected, and chemical-specific bioavailability (NAVFAC, 2003).

Only complete and significant pathways identified in the SLERA were re-evaluated in Step 3A of the ERA. Similarly, only COPCs and receptors identified in the SLERA as requiring further evaluation were addressed in Step 3A.

The assumptions, parameter values, and methods that were modified for the Step 3A re-evaluation included:

- Risk estimates based upon maximum chemical concentrations were supplemented by risk estimates based upon average (arithmetic mean) chemical concentrations. In addition, BAFs based upon, or modeled from, central tendency estimates (e.g., median or mean) from the literature as opposed to the maximum or high-end (e.g., 90th percentile) estimates used in the SLERA were researched. A refined estimate was only available for mercury. BAF values used in Step 3A are provided in **Table 6-15**.

  In the BERA, using central tendency estimates (rather than high-end or maximums) for exposure parameters such as the exposure point concentration (EPC; the concentration to which prey and receptors are exposed) provides a more representative estimate of potential exposures and risks to receptor populations (the focus of the assessment endpoints) of upper trophic level receptors. Since these upper trophic level species are highly mobile, they would be expected to effectively average their exposure over time as they forage within the area defining their home range (which will extend to off-site areas). Average prey concentrations at Step 3A are most appropriately estimated using central tendency estimates of media concentrations and accumulation factors. For example, the wildlife dietary exposure models contained in the *Wildlife Exposure Factors Handbook* (USEPA, 1993a) specify the calculation of an average daily dose. Increasing the representativeness of the exposure estimates relative to population-level effects is consistent with the intent of the Step 3A evaluation. In cases where adequate spatial sampling coverage exists, mean concentrations are also appropriate for evaluating potential risks to populations of lower trophic level receptors because the members of the population are expected to be found throughout a site (where suitable habitat is present), rather than concentrated in one particular area. While effects on individual organisms might be important for some receptors, such as rare and endangered species, population- and community-level effects are typically more relevant to ecosystems.

- Central tendency estimates (e.g., mean, median, or midpoint) for body weight and ingestion rate (**Table 6-16**) were used to develop exposure estimates for upper trophic level receptors, rather than the minimum body weights and maximum ingestion rates used in the SLERA. Central tendency estimates for these exposure parameters are more relevant for a BERA because they better represent the characteristics of a greater proportion of the individuals in the population. Populations (rather than individual organisms) were emphasized during the development of the assessment endpoints for the ERA.

- The SLERA conservatively identified a chemical as a food web COPC if the estimated dose for at least one upper trophic level receptor exceeded the NOAEL. The actual dose that is protective of an individual receptor, however, will fall between the NOAEL and the LOAEL. Both the NOAEL and LOAEL were used for comparison in the BERA. However, chemicals were not considered chemicals of concern (chemicals which should be carried forward to a full BERA) following Step 3A unless the exposure dose exceeded the LOAEL because this dose is expected to be protective of the population, which is the assessment endpoint being evaluated.

- USEPA guidance (USEPA, 1996b) indicates that the dissolved metal fraction should be preferentially used to the total metal fraction in surface water (and, by extension, groundwater) screening to evaluate direct exposures of aquatic biota. For conservatism, total metal concentrations were included in the SLERA for the surface water screen. Since high levels of suspended solids and sediment-adsorbed metals could result in overstating bioavailable surface water concentrations (and thus potential exposures and risks), filtered metal concentrations (representing the dissolved fraction) in surface water were also evaluated through a comparison to screening values based upon the dissolved metal fraction.
- Although ecological receptors do not have direct exposure to groundwater, surface water screening values were compared to maximum groundwater concentrations in the SLERA without consideration of any dilution or attenuation in order to provide a conservative evaluation of the potential for significant contaminant transport via groundwater to adjacent water bodies. In the absence of site-specific dilution factors for groundwater, Buchman (1999) recommends using of a dilution factor of 10 to account for the dilution expected during migration and upon discharge of groundwater to surface water. This dilution factor was considered qualitatively (i.e., as part of the weight-of-evidence discussion, not presented in tables as a diluted concentration) in Step 3A.
- The detection frequency for individual chemicals was considered in re-evaluating the COPCs from the SLERA. Chemicals that were detected in less than five percent of the samples in a medium were not considered chemicals of concern in that medium (USEPA, 1989). It is unlikely that infrequently detected chemicals represent a risk to receptors at the population level.
- Base and/or North Carolina background data for naturally-occurring constituents (e.g., metals) were also considered, where appropriate, in Step 3A.

Step 3A includes a refined screening of COPCs using alternate screening values and weight-of-evidence (WOE) approaches not utilized in Step 2. The WOE approach considers factors such as average concentrations, frequency of detection, magnitude of exceedance, and the distribution of detected concentrations. Refinement of COPCs used a stepwise process for each individual medium as follows:

- <u>COPC Categories 3 and 4 from the SLERA</u>: Alternate toxicological data were researched only for those COPCs which lacked available screening values provided by NCDENR and/or USEPA Region 4. Data were then re-screened using the alternate values. Sources included readily available toxicological compilations such as those published by Oak Ridge National Laboratories, USEPA's ECOTOX database, and guidance documents from other states and USEPA regions. Supporting toxicological data are presented in **Appendix I-2**. When alternate screening values were not available, the COPC was carried forward into the WOE process only if it was detected. Likewise, COPCs were also carried forward to the WOE process if maximum concentrations exceeded the alternate screening values identified.

- COPC Categories 1, 2, and 5 from the SLERA, and Refined Screening of Categories 3 and 4: Once data were re-screened using alternate screening values, all COPCs from the initial re-screening table, and all other categories of COPCs identified previously in the SLERA, were evaluated individually using a WOE approach. The WOE included frequency of detection, frequency of exceedance of toxicological data, whether or not the average concentration exceeds screening values, a comparison to groundwater background established for MCB Camp Lejeune, bioaccumulation potential, presence of a site-related gradient, and whether or not the constituent was identified as a COPC in other media.
- Spatial and Temporal Distribution: For all COPCs that remained after the WOE, a third step included evaluating the spatial and temporal distribution of constituents. For sediment, a fourth step was also employed that included comparison to multiple toxicological effect levels and evaluating potential bioavailability.

In the WOE, not all lines of evidence were considered equally. Comparison of the average concentration to screening values, magnitude of exceedance, and frequency of exceedance of detected constituents were given the most weight followed by frequency of detection, bioaccumulation potential, and presence of a site-related gradient. Bioaccumulative compounds included those identified by USEPA Region 3 (USEPA, 2004c). Whether or not a constituent was determined to be a COPC in other media was considered as a lower weight of evidence. All of these lines of evidence were evaluated for each chemical in each medium. For some non-detected constituents, elevated detection limits are the driving force behind multiple lines of evidence suggesting risk. These constituents are considered uncertainties rather than COPCs and are discussed further in Section 6.4.

6.3.2 Refined (Step 3A) Risk Characterization

The results of the refined risk characterization are discussed, by medium, in the following subsections.

Surface Water

The initial re-screening of Category 3 and 4 COPCs with alternate screening values is contained in **Table 6-17**. Based upon this evaluation, aluminum, iron, and endrin aldehyde were retained as COPCs based upon maximum detected concentrations exceeding screening values. Oil and grease and TPH-GRO were also retained because they were detected but had no alternate screening value. Non-detected chemicals without alternate screening values and non-detected chemicals with maximum detection limits exceeding alternate screening values were not retained as COPCs and are discussed further in the uncertainty section.

The refined screening and WOE evaluation is summarized in **Table 6-18**. Based upon detected concentrations, only aluminum (both total and dissolved), endrin aldehyde, and heptachlor epoxide had mean HQs that were greater than one. Although the mean HQ for total iron exceeded one, the mean HQ for dissolved iron did not. Similarly, the maximum HQ for total silver (the mean was greater than the maximum so the mean HQ was not used) marginally exceeded one but the maximum HQ for dissolved silver did not. The dissolved phase of these metals best reflects the bioavailable fraction. Oil and grease and TPH-GRO were detected but lacked screening values. Non-detected chemicals without screening

values and non-detected chemicals with maximum detection limits exceeding screening values were not retained as COPCs and are discussed further in the uncertainty section.

Aluminum did not exhibit any strong spatial or temporal patterns, although concentrations tended to be lower in the unnamed tributary. The highest detected total concentration occurred at MR04-SW04 (7,150 µg/L) in 2006 but the concentration at this same location in 2007 was only 221 µg/L (which is less than the screening value). Maximum total concentrations of aluminum at nearby background water bodies (e.g., Hadnot Creek; Baker Environmental, 2002) were about 700 µg/L. While this is about a factor of 10 lower than maximum total on-site concentrations and about a factor of 2 lower than maximum dissolved on-site concentrations, there are no know site sources of this constituent. Aluminum concentrations in groundwater, while elevated relative to the alternate screening value, were consistent with Base background concentrations, and aluminum was not identified as a COPC in sediment. Given this, risks to aquatic organisms attributable to concentrations of aluminum are acceptable.

Endrin aldehyde and heptachlor epoxide were detected in one and two of 17 surface water samples, respectively, and neither exhibited any spatial or temporal patterns. The one detection of endrin aldehyde occurred in 2006 at MR04-SW01; this chemical was not detected at this same location in 2007. Similarly, heptachlor epoxide was detected at MR04-SW06 and MR04-SW08 in 2007 but was not detected at these same locations in 2006. Also, the screening value for heptachlor epoxide is based upon the final residue value, not the final chronic value, which is likely to significantly overestimate its toxicity to aquatic organisms. In addition, both of these pesticides are likely to be retained primarily in sediments and not be present in appreciable quantities in the water column based upon their chemical properties. There are no known pesticide storage areas within this former residential area. These pesticides likely represent residual concentrations from application for intended use. Neither of these chemicals was identified as a COPC in sediment. Given the WOE, there is no unacceptable risk to aquatic organisms due to concentrations of these constituents in surface water.

Oil and grease and TPH-GRO are not likely to represent a risk to aquatic organisms at the site since related constituents (e.g., PAHs) were not identified as COPCs in surface water and because neither of these constituents were identified as COPCs in sediment, where they would most likely reside.

Based upon the refined screening results and the WOE evaluation, none of the COPCs are likely to result in unacceptable risks to aquatic receptors that are site-related and none are retained as final chemicals of concern.

Sediment

The initial re-screening of Category 3 and 4 COPCs with alternate screening values is contained in **Table 6-19**. As discussed in Section 6.2.3, alternate screening values based upon equilibrium partitioning were adjusted based upon the median site-specific TOC of 5.5 percent. Based upon this evaluation, barium, selenium, endrin ketone, and oil and grease were retained as COPCs based upon maximum detected concentrations exceeding screening values. Beryllium, acetophenone, benzaldehyde, and TPH-DRO were also retained because they were detected but had no alternate screening value. Non-detected chemicals without

alternate screening values and non-detected chemicals with maximum detection limits exceeding alternate screening values were not retained as COPCs and are discussed further in the uncertainty section.

The refined screening and WOE evaluation is summarized in **Table 6-20**. Based upon detected concentrations, only selenium and 4,4′-DDT had mean HQs that were greater than one. Beryllium, acetophenone, benzaldehyde, and TPH-DRO were detected but lacked screening values. Non-detected chemicals without screening values and non-detected chemicals with maximum detection limits exceeding screening values were not retained as COPCs and are discussed further in the uncertainty section.

Selenium did not exhibit any strong spatial pattern. The three exceedances occurred at Locations MR04-SD06, MR04-SD09, and MR04-SD10 (**Figure 3-1**). At MR04-SD06, selenium exceeded in the 2006 sample but was non detected in the 2007 sample. MR04-SD09 and MR04-SD10 are located near the upstream end of the unnamed tributary and likely represent ambient conditions. Selenium is not a COPC in surface water or groundwater.

4,4′-DDT also did not exhibit any spatial or temporal patterns. The highest concentration (190 µg/kg) occurred at MR04-SD03 in 2006; in 2007, 4,4′-DDT was not detected at this location. The remaining two exceedances, at MR04-SD08 in 2007 and at MR04-SD10 in 2006, were only marginally greater than the alternate screening value (HQs of 1.46 and 1.25, respectively). In addition, the concentration at MR04-SD08 in 2006 (1.1 µg/kg) was below the screening value (7.55 µg/kg); MR04-SD10 was not sampled in 2007. There are no known pesticide storage areas within this former residential area. These pesticides likely represent residual concentrations from application for intended use. Given the WOE, there is no unacceptable risk to aquatic organisms due to concentrations of DDT in sediment.

Beryllium did not display any spatial or temporal pattern in its concentrations. Also, the range of detections was similar to background water bodies (e.g., Hadnot Creek; Baker Environmental, 2002). Maximum concentrations of acetophenone (130 µg/kg) and benzaldehyde (460 µg/kg) were less than alternate screening values for other, similar organic chemicals. TPH-DRO is not likely to represent a risk to aquatic organisms at the site since related constituents (e.g., oil and grease and PAHs) were not identified as COPCs in sediment and TPH-DRO concentrations were typically lower.

Based upon the refined screening results and the WOE evaluation, none of the COPCs are likely to result in unacceptable risks to aquatic receptors and none are retained as final chemicals of concern.

Groundwater

The initial re-screening of Category 3 and 4 COPCs with alternate screening values is contained in **Table 6-21**. Based upon this evaluation, aluminum, beryllium, iron, and manganese were retained as COPCs based upon maximum detected concentrations exceeding screening values. Acetophenone, oil and grease, and TPH-GRO were also retained because they were detected but had no alternate screening value. Non-detected chemicals without alternate screening values and non-detected chemicals with maximum detection limits exceeding alternate screening values were not retained as COPCs and are discussed further in the uncertainty section.

The refined screening and WOE evaluation is summarized in **Table 6-22**. Based upon detected concentrations, only aluminum (both total and dissolved), silver (both total and dissolved), and heptachlor epoxide had mean HQs exceeding one. Acetophenone, oil and grease, and TPH-GRO were detected but lacked screening values. Non-detected chemicals without screening values and non-detected chemicals with maximum detection limits exceeding screening values were not retained as COPCs and are discussed further in the uncertainty section.

Mean HQs for aluminum and silver assuming a dilution factor of 10 were less than one. In addition, aluminum concentrations were consistent with Base background concentrations (Baker Environmental, 2002). The mean HQ for heptachlor epoxide assuming a dilution factor of 10 was only marginally above one (1.05). Also, the screening value for heptachlor epoxide is based upon the final residue value, not the final chronic value, which is likely to significantly overestimate its toxicity to aquatic organisms. Heptachlor epoxide was not identified as a COPC in surface water or sediment.

Maximum concentrations of acetophenone (1.10 µg/L) were less than alternate screening values for other, similar organic chemicals. Oil and grease and TPH-GRO are not likely to represent a risk to aquatic organisms at the site since related constituents (e.g., PAHs) were not identified as COPCs in surface water and because neither of these constituents were identified as COPCs in sediment, where they would most likely reside.

Based upon the refined screening results and the WOE evaluation, none of the COPCs are likely to result in unacceptable risks to aquatic receptors that are site-related and none are retained as final chemicals of concern.

Food Web Exposures

Hazard quotients based upon arithmetic mean and 95 percent UCL of the mean (assuming a normal distribution) exposure doses for each upper trophic level receptor species are provided in **Table 6-23**. No constituent had a HQ exceeding one for any of the receptors evaluated. Thus, risks from food web exposures at the site are acceptable. These results can be qualitatively applied not only to the piscivorous mammalian and avian feeding guilds that these receptors represent, but also to reptilian feeding guilds. Thus, there is no unacceptable risk expected to any upper trophic level wildlife at the site.

6.4 Uncertainties

Uncertainties are present in all risk assessments because of the limitations of the available data and the need to make certain assumptions and extrapolations based upon incomplete information. The uncertainties in this ERA are mainly attributable to the following factors:

- Reporting Limits - Reporting limits for some undetected analytes exceeded applicable screening values in some media. **Table 6-24** summarize these constituents, by medium, and reports both the ratio of the minimum and maximum reporting limits to the screening value as well as the ratio of the mean value (calculated using one-half of the reporting limit for each sample) to the screening value. Because these constituents were not detected, they are not known to be present on the site but the potential for unacceptable risks cannot be totally discounted because the reporting limits are higher

than the screening values. The magnitude of the ratios can be used to qualitatively evaluate the magnitude of the associated uncertainty (e.g., there is more uncertainty in terms of the potential for risk for a ratio of 100 relative to a ratio of 10). In surface water (as well as groundwater), mean reporting limits for these chemicals were generally less than five times screening values. The main exceptions were several pesticides, the PCB aroclors, and several SVOCs. Based upon their chemical properties, all of these chemicals are likely to be retained in sediments and not be present in appreciable quantities in the water column. Screening values for these chemicals were generally comparable to, or below, reporting limits in sediments. In sediment, mean reporting limits exceeded screening values for a number of chemicals although almost always by a factor of five or less. The only exceptions were lindane and three SVOCs.

In summary, there were relatively few chemicals with very high mean ratios, suggesting that the associated uncertainties are relatively low. Because standard analytical methods were used and the sample reporting limits were not elevated relative to the method reporting limits for the vast majority of samples and analytes, these uncertainties are considered acceptable and are unlikely to impact the conclusions of the ERA.

- Selection of COPCs - Chemicals without available screening values for a medium were not retained as COPCs unless they were detected. These uncertainties are unlikely to impact the conclusions of the ERA since these chemicals are not known to be present on the site.

  Uncertainties in toxicological data can also influence the reliability of risk management decisions. For many contaminants, data on toxicity to wildlife are limited. In addition, the usefulness of existing toxicity information in assessing ecological impacts is constrained by several factors. Most toxicity information is generated by laboratory studies with selected test species. The screening values used for this assessment have varying levels of confidence that will affect how useful the resulting risk estimates are. Additionally, some of the constituents detected in site media did not have available toxicity screening values on which to quantify risks; these constituents could not be quantitatively evaluated. However, most of the constituents that have no available toxicity data are considered less toxic, because most of the toxicological literature focuses on those constituents considered more toxic to ecological receptors.

- Ingestion Screening Values - Data on the toxicity of many chemicals to the receptor species were sparse or lacking, requiring the extrapolation of data from other wildlife species or from laboratory studies with non-wildlife species. This is a typical limitation and extrapolation for ecological risk assessments because so few wildlife species have been tested directly for most chemicals. The uncertainties associated with toxicity extrapolation were minimized through the selection of the most appropriate test species for which suitable toxicity data were available. The factors considered in selecting a test species to represent a receptor species included taxonomic relatedness, trophic level, foraging method, and similarity of diet.

  A second uncertainty related to the derivation of ingestion screening values applies to metals. Most of the toxicological studies on which the ingestion screening values for metals were based used forms of the metal (such as salts) that have high water solubility and high bioavailability to receptors. Since the analytical samples on which site-specific

exposure estimates were based measured total metal, regardless of form, and these highly bioavailable forms are expected to compose only a fraction of the total metal concentration, this is likely to result in an overestimation of potential risks for these chemicals.

- Chemical Mixtures - Information on the ecotoxicological effects of chemical interactions is generally lacking, which required (as is standard for ecological risk assessments) that the chemicals be evaluated on a compound-by-compound basis during the comparison to screening value. This could result in an underestimation of risk (if there are additive or synergistic effects among chemicals) or an overestimation of risks (if there are antagonistic effects among chemicals).

- Food Web Exposure Modeling - Chemical concentrations in aquatic food items (fish) were modeled from measured media concentrations and were not directly measured. The use of generic, literature-derived exposure models and bioaccumulation factors introduces some uncertainty into the resulting estimates. The values selected and methodology employed were intended to provide a conservative (SLERA) or reasonable (Step 3A) estimate of potential food web exposure concentrations.

  Another source of uncertainty is the use of default assumptions for exposure parameters such as BCFs and BAFs. Although BCFs or BAFs for many bioaccumulative chemicals were readily available from the literature and were used in the ERA, the use of a default factor of 1.0 to estimate the concentration of some chemicals in receptor prey items is a source of uncertainty.

  Area use factors were assumed to equal one. This is a conservative assumption since a significant percentage of each upper trophic level receptor species' time could be spent foraging off-site in unimpacted areas or in areas where chemical concentrations are expected to be significantly lower.

- Total Versus Dissolved Metals - USEPA guidance (USEPA, 1996b) indicates that the dissolved metal fraction should be preferentially used to the total metal fraction in surface water screening. Both total and dissolved concentrations were used in the ERA for the surface water screen. High levels of suspended solids and sediment-adsorbed metals would result in overstating bioavailable surface water concentrations and thus potential exposures and risks.

- Mean Versus Maximum Media Concentrations - As is typical in an ERA, a finite number of environmental media samples were used to develop the exposure estimates. The maximum measured concentration provides a conservative estimate for immobile biota or those species with a limited home range. The most realistic exposure estimates for mobile species with relatively large home ranges and for species populations (even those that are immobile or have limited home ranges) are those based upon the mean chemical concentrations in each medium to which these receptors are exposed. This is reflected in the wildlife dietary exposure models contained in the *Wildlife Exposure Factors Handbook* (USEPA, 1993a), which specify the use of average media concentrations. Given the mobility of the upper trophic level receptor species used in the ERA, the use of maximum chemical concentrations (rather than mean concentrations) in the SLERA to

estimate the exposure via food webs is very conservative. This conservatism was reduced to more realistic levels in the values selected for use in the Step 3A evaluation.

- Spatial Distribution of Samples - The number and spatial distribution of surface water and sediment samples were sufficient to adequately estimate potential ecological risks. The representativeness of the data was evaluated with consideration of these criteria:
  - **Chemical representativeness -** Identifies whether analyses were conducted for constituents expected to be present, on the basis of an understanding of historical processes or practices and potential releases at the site.
  - **Exposure representativeness -** Identifies whether environmental media were evaluated where receptor exposure is most feasible.
  - **Spatial representativeness -** Identifies whether samples were collected with a sufficient density and aerial coverage that the detected constituent concentrations represent a geographically-integrated exposure for the receptors of concern. Site maps from the ESI report were reviewed to determine whether sampling locations were spatially representative of exposures possible at the site.
  - **Temporal representativeness -** Identifies whether samples were collected within a time frame such that detected constituent concentrations indicate current site conditions.

  Using these criteria, the following conclusions were drawn from this evaluation:
  - Site media sampled were collected near or down gradient from the site, analyzed for all suspected contaminants, and likely provide an overall conservative evaluation of the current and future conditions at the site.
  - All site media data included in the ERA were collected between November 2005 and October 2007 and are considered temporally representative of current site conditions.
- Frequency of Detection - Frequency of detection was identified as a potential screening criterion when sample size and spatial distribution were adequate. Chemicals that were detected in less than five percent of the samples in a medium were not considered chemicals of concern in that medium (USEPA, 1989). It is unlikely that infrequently detected chemicals represent a risk to receptors at the population level. The uncertainties associated with the use of frequency of detection as a screening criterion are low as very few chemicals were screened out based solely upon this criterion

6.5 Refined Risk Conclusions and Scientific Management Decision Point

Based upon the refined screening results and the WOE evaluation, none of the COPCs are likely to result in unacceptable risks to aquatic receptors that are site-related and none are retained as final chemicals of concern. There are no unacceptable risks from food web exposures. Thus, no further action is recommended for ecological receptors at Site UXO-04.

SECTION 7

Conclusions and Recommendations

The following conclusions on the MR investigations, analytical results, human health and ecological risk assessments derived from the data collected during the Phase I and Phase II sampling events are summarized in this section. Recommendations based on these conclusions are also presented.

7.1 Conclusions

7.1.1 MR Investigation

Out of a total of 1,811 geophysical anomalies that were intrusively investigated in 17 grids, only one munitions-related item was discovered. No MD or other munitions-related material was found, and the sources of all other geophysical anomalies were found to be scrap-metal. Due to the results from the intrusive investigation it is concluded that Site UXO-04 had likely not been utilized as an active range.

7.1.2 Analytical Results Conclusion

Surface Soil

No VOCs exceeded the screening criteria during Phase I or Phase II. No SVOCs exceeded the screening criteria during Phase I sampling. During the Phase II surface soil sampling five SVOCs exceeded Region IX Residential PRGs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene. With the exception of MR04-F04 and MR04-G08 all the SVOC exceedances were located within the boundaries of the Knox Trailer Park.

During the Phase I and Phase II surface soil sampling, dieldrin was the only pesticide or PCB to exceed the screening criteria. Of the ten dieldrin exceedances from both Phase I and II, six are located in the northern portion of Site UXO-04. No exceedances of the screening criteria occurred for explosive residuals.

During Phase I, chromium, iron, and mercury were the only metals to exceed screening criteria. During Phase II, aluminum, arsenic, iron, and vanadium all exceeded the screening criteria. The base background surface soil concentrations are higher then the screening criteria for arsenic, iron and vanadium. There was a cluster of exceedances of iron and vanadium in the northwest corner and in the southern center section of Site UXO-04. No other obvious trends in arsenic, iron or vanadium exceedances were observed.

Subsurface Soil

No VOCs exceeded screening criteria during Phase I or Phase II. No SVOCs exceeded screening criteria during Phase I or II.

During Phase I, dieldrin was the only exceedance of screening criteria for pesticides or PCBs. During Phase II, no pesticides or PCBs exceeded screening criteria in subsurface soil. No exceedances of the screening criteria occurred for explosive residuals.

Metals to exceed the NC SSLs during Phase I and Phase II include arsenic, chromium, iron and mercury. The base background subsurface soil concentrations are higher then the screening criteria for iron and mercury.

Groundwater

No VOCs exceeded the screening criteria during either Phase I or Phase II groundwater sampling. During Phase I, bis(2-ethylhexyl)phthalate was the only SVOC to exceed it's screening criteria. No SVOCs exceeded NC2L during Phase II.

During Phase I, heptachlor epoxide was the only pesticide or PCB detected in groundwater and no exceedances of screening criteria occurred during Phase II. No exceedances of explosives residuals occurred in groundwater.

Three metals exceeded screening criteria during the sampling events, chromium, iron and manganese. During Phase I, total chromium and dissolved chromium exceeded screening criteria. No exceedances occurred during Phase II for chromium. Iron and manganese concentrations exceeded the screening criteria during both Phase I and II. However, both iron and manganese concentrations were below the base background groundwater concentrations.

Surface Water

No VOCs exceeded the screening criteria during Phase I or II.

During Phase I and II, bis(2-ethylhexyl)phthalate was the only SVOC to exceed its screening criteria.

Five pesticides/PCBs exceeded screening criteria including 4,4'-DDD during Phase I only, dieldrin during Phase I and II, and, during Phase II only, heptachlor epoxide, alpha-BHC and beta-BHC.

Three metals exceeded screening criteria including aluminum during Phase I only, arsenic during Phase II only and thallium during Phase I and II. Arsenic was the only dissolved metal to exceed screening criteria during Phase II.

Sediment

No VOCs exceeded the screening criteria. Benzo(a)pyrene was the only SVOC to exceeded screening criteria during Phase I and II. No pesticides or PCBs exceeded the screening criteria for sediments during either Phase I or Phase II.

During Phase I, nitrobenzene as the only explosive compound detected however no exceedances occurred. No explosive residuals were detected during Phase II.

Four metals exceeded screening criteria during both events including aluminum, arsenic, iron, and vanadium.

7.1.3 Human Health Risk Assessment

The Phase I HHRA evaluation indicated that exposure to surface soil, subsurface soil, and sediment would not result in any COPCs, or unacceptable risks to human health. Therefore, no further assessment of surface soil, subsurface soil, and sediment, based on human health risks, was necessary, and a baseline HHRA was not performed for these media. The Phase I evaluation indicated the potential for risks associated with exposure to surface water and shallow groundwater, therefore, a further human health risk evaluation was performed for surface water and groundwater.

Exposure to surface water by recreationalists does not result in any risks above USEPA target levels, and no further evaluation of surface water is necessary based on human health risks.

The further risk evaluation for groundwater involved screening the 2007 groundwater data from each monitoring well individually. This evaluation demonstrated that there would be no unacceptable risks associated with exposure to groundwater at any of the monitoring wells, and further evaluation of the groundwater in terms of human health risk was not necessary.

Therefore, based on the Phase I and Phase II human health risk evaluations for surface soil, subsurface soil, surface water, sediment, and groundwater, there are no unacceptable risks for current or future human health exposure at Site UXO-04.

7.1.4 Ecological Risk Assessment

Based upon the refined screening results and the WOE evaluation, none of the COPCs are likely to result in unacceptable risks to aquatic receptors that are site-related and none are retained as final chemicals of concern. There are no unacceptable risks from food web exposures.

7.2 Recommendations

Based upon the conclusions made in the previous section from the laboratory analytical data from both the Phase I and II environmental investigation, the MR investigation, the human health risk assessment, and the ecological risk assessment, the following recommendations are provided:

1. No further action for human and ecological receptors
2. Site closure and removal of UXO-04 from the MMRP
3. Site UXO-04 is fit for residential use.

SECTION 8

References

Agency for Toxic Substances and Disease Registry (ATSDR), 1990. *Toxicological profile for silver.* TO-90/24.

ATSDR, 1993a. *Toxicological profile for arsenic*. April.

ATSDR, 1993b. *Toxicological profile for aldrin/dieldrin*. April.

ATSDR, 1993c. *Toxicological profile for endosulfan*. April.

ATSDR, 1994a. *Toxicological profile for zinc*. May.

ATSDR, 1994b. *Toxicological profile for 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD*. May.

ATSDR, 1994c. *Toxicological profile for hexachlorobutadiene*. May.

ATSDR, 1994d. *Toxicological profile for pentachlorophenol*. May.

ATSDR, 1995. *Toxicological profile for polycyclic aromatic hydrocarbons (PAHs)*. August.

ATSDR, 1996a. *Toxicological profile for 1,1,2,2-tetrachloroethane.* August.

ATSDR, 1996b. *Toxicological profile for hexachlorobenzene*. August.

ATSDR, 1997a. *Toxicological profile for nickel*. September.

ATSDR, 1997b. *Toxicological profile for hexachloroethane*. September.

ATSDR, 1998. *Toxicological profile for 1,4-dichlorobenzene*. December.

ATSDR, 1999a. *Toxicological profile for cadmium*. July.

ATSDR, 1999b. *Toxicological profile for hexachlorocyclopentadiene.* July.

Baker Environmental, Inc., 2001. *Final Base Background Study (Soil), Marine Corps Base Camp Lejeune, North Carolina.* April.

Baker Environmental, Inc., 2002. *Draft Base Background Groundwater Study Report, Marine Corps Base Camp Lejeune, North Carolina.* August.

Benville, P. E., Jr., J. A. Whipple, and M. B. Eldridge. 1985. Acute Toxicity of Seven Alicyclic Hexanes to Striped Bass (*Morone saxatilis*) and Bay Shrimp (*Crangon francisscorum*) in Seawater. *Calif. Fish & Game.* 71(3): 132-140.

Buchman, M.F., 1999. *NOAA screening quick reference tables.* NOAA HAZMAT Report 99-1, Seattle, WA. 12 pp.

Butler, R.W., 1992. Great blue heron (*Ardea herodias*). *Birds of North America.* No. 25. The Academy of Natural Sciences, Philadelphia, PA and the American Ornithologists' Union, Washington, D.C.

Cardinell, A.P., S.A. Berg, and O.B. Lloyd, Jr., 1993. *Water Resources Investigations Report 93-4049: Hydrogeologic Framework of U.S. Marine Corps Base at Camp Lejeune, North Carolina*. U.S. Geological Survey.

Carraway, G. S., 1946. *Camp Lejeune Leathernecks: Camp Lejeune, N.C., Marine Corps' Largest All-Purpose Base*. New Bern Owen G. Dunn.

CH2M HILL, 2005a. *Master Project Plans, Marine Corps Base, Camp Lejeune, Jacksonville, North Carolina*. June.

CH2M HILL, 2005b. *Final Work Plan for the Expanded Site Investigation, Site UXO-04 – Knox Trailer Park, Marine Corps Base Camp Lejeune, Jacksonville, NC*. October.

CH2M HILL, 2006a. *Munitions and Explosives of Concern Intrusive Investigation Explosives Safety Submission, Site UXO-04 – Knox Trailer Park, Marine Corps Base Camp Lejeune, Jacksonville, NC*. September.

CH2M HILL, 2006b. *Munitions and Explosives of Concern Intrusive Investigation Work Plan, Site UXO-04 – Knox Trailer Park, Marine Corps Base Camp Lejeune, Jacksonville, NC*. November.

CH2M HILL, 2007. *Final Phase II Environmental Sampling Work Plan, Site UXO-04 – Knox Trailer Park, Marine Corps Base Camp Lejeune, Jacksonville, NC. August.*

Cifelli, Don/Retired MCB Camp Lejeune EOD Technician, 2005a. Personal communication with CH2M HILL. March.

Cifelli, Don/Retired MCB Camp Lejeune EOD Technician, 2005b. Personal communication with CH2M HILL. August 15 and 18.

Cope, W.G., J.G. Wiener, and R.G. Rada. 1990. Mercury accumulation in yellow perch in Wisconsin seepage lakes: relation to lake characteristics. *Environmental Toxicology and Chemistry.* 9:931-940.

Coulston, F. and A.C. Kolbye, Jr. (eds). 1994. Interpretive review of the potential adverse effects of chlorinated organic chemicals on human health and the environment. *Regulatory Toxicology and Pharmacology.* 20:S1-S1056.

Department of Defense (DoD), 2004. *Management and Disposition of Material Potentially Presenting an Explosive Hazard (MPPEH).* DoD Instruction 4140.62. December.

Department of the Navy, 2005. *Revised Pre-Final Environmental Assessment for Privatization of Military Housing at MCB Camp Lejeune, MCAS New River, and MCAS Cherry Point*. July.

Eisler, R. 1989. *Pentachlorophenol hazards to fish, wildlife, and invertebrates: a synoptic review.* U.S. Fish and Wildlife Service Biological Report 85(1.17), Contaminant Hazard Reviews Report No. 17. 72 pp.

Foster, S. A., and P. C. Chrostowski, 1987. *Inhalation Exposures to Volatile Organic Contaminants in the Shower*. ICF-Clement Associates, Inc. Washington, D.C.

Harris, W.B., and V.A. Zullo, 1991. *Eocene and Oligocene Stratigraphy of the Outer Coastal Plain*. In J.W. Horton, Jr., and V.A. Zullo (eds.), *The Geology of the Carolinas: Carolina Geological Society, 50th Anniversary Volume*.

Hill, E.F., R.G. Heath, J.W. Spann, and J.D. Williams. 1975. *Lethal dietary toxicities of environmental pollutants to birds.* U.S. Fish and Wildlife Service Special Scientific Report - Wildlife No. 191, Washington D.C.

Humphreys, D.J. 1988. *Veterinary toxicology.* ISBN 0702012491.

Jones, D.S., G.W. Suter II, and R.N. Hull. 1997. *Toxicological benchmarks for screening contaminants of potential concern for effects on sediment-associated biota: 1997 revision.* Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-95/R4.

Krantzberg, G. and D. Boyd. 1992. The biological significance of contaminants in sediment from Hamilton Harbour, Lake Ontario. *Environmental Toxicology and Chemistry.* 11:1527-1540.

Kimball, Lt. Col. Lynn (USMC Ret.)/MCB Camp Lejeune historical consultant, 2005. Personal communication with CH2M HILL. August 10.

Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder. 1995. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management.* 19:81-97.

Lowder, Robert/Environmental Management Division, MCB Camp Lejeune, 2005. Personal communication with CH2M HILL. August 3 and 4.

Marine Devil Dogs!: Introduction to the U.S. Marine Corps War Dogs, 2005. http://community -2.webtv.net/Hahn-50thAP-K9/K9History4/. Accessed April 25, 2005.

MCB Camp Lejeune, 2002. *Environmental Assessment Construction of a Consolidated Academic Instruction Facility and Barracks, Camp Johnson, Marine Corps Base, Camp Lejeune, Onslow County, North Carolina*. July.

McGurty, G./Gunnery Sergeant, MCB Camp Lejeune, 2005. Personal communication with CH2M HILL. July 22.

Montrose, Lynn, 1955. "Development of Our Body Armor." *Marine Corp Gazette*. June.

Nagy, K.A, 2001. Food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds. *Nutrition Abstracts and Reviews. Series B.* 71:21R-31R.

NAVFAC (Naval Facilities Engineering Command), 2003. *Navy guidance for conducting ecological risk assessments.* http://web.ead.anl.gov/ecorisk/. February.

North Carolina Department of Environment and Natural Resources (NCDENR), 2000. *Guidelines for Determining Soil and Groundwater Clean-up Levels at RCRA Hazardous Waste Sites.* NCDENR Division of Waste Management, September.

NCDENR, 2003a. *Guidelines for Performing Screening Level Ecological Risk Assessments Within the North Carolina Division of Waste Management*. NCDENR Division of Waste Management. October.

NCDENR, 2003b. *North Carolina Surface Water Quality Standard for Aquatic Life.* NC Administrative Code 15A NCAC 02B .0100 & .0200. April.

NCDENR, 2005. *Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina.* Title 15A, Department of Environment and Natural Resources, Division of Water Quality. December, 2005.

NCDENR, 2007. *"Redbook" Surface Waters and Wetlands Standards. NCAC 15A NCAC 02B .0100, .0200 & .0300*. Title 15A, Department of Environment and Natural Resources, Division of Water Quality. May, 2007

Oliver, B.G. and A.J. Niimi, 1988. Trophodynamic analysis of polychlorinated biphenyl congeners and other chlorinated hydrocarbons in the Lake Ontario ecosystem. *Environmental Science and Technology.* 22:388-397.

Ontario Ministry of Environment and Energy (MOE). 1993. *Guidelines for the protection and management of aquatic sediment quality in Ontario.* ISBN 0-7729-9248-7. 27 pp.

Parkerton, T.F., J.P. Connolly, R.V. Thomann, and C.G. Uchrin. 1993. Do aquatic effects or human health end points govern the development of sediment-quality criteria for nonionic organic chemicals. *Environmental Toxicology and Chemistry.* 12:507-523.

Pascoe, G.A., R.J. Blanchet, and G. Linder. 1996. Food chain analysis of exposures and risks to wildlife at a metals-contaminated wetland. *Archives of Environmental Contamination and Toxicology.* 30:306-318.

Putney, William W., 2001. *Always Faithful: A Memoir of the Marine Dogs of WWII*. The Free Press.

Quinney, T.E. and P.C. Smith, 1980. Comparative foraging behavior and efficiency of adult and juvenile great blue herons. *Canadian Journal of Zoology.* 58:1168-1173.

Quinney, T.E. 1982. Growth, diet, and mortality of nestling great blue herons. *Wilson Bulletin.* 94:571-577.

Richardson, Duane/Base Range Safety Officer, MCB Camp Lejeune, 2005. Personal communication with CH2M HILL. August 3.

Rigdon, R.H. and J. Neal, 1963. Fluorescence of chickens and eggs following the feeding of benzpyrene crystals. *Texas Reports on Biology and Medicine.* 21(4):558-566.

Sample, B.E., D.M. Opresko, and G.W. Suter II, 1996. *Toxicological benchmarks for wildlife: 1996 revision.* Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-86/R3.

Sample, B.E. and G.W. Suter II, 1994. *Estimating exposure of terrestrial wildlife to contaminants.* Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-125.

Silva, M. and J.A. Downing, 1995. *CRC handbook of mammalian body masses*. CRC Press, Boca Raton, FL. 359 pp.

Singh, Anita, and Singh, Ashok K, April 2007. ProUCL Version 4.0, Users Guide.

Suter, G.W. II and C.L. Tsao, 1996. *Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 revision.* Environmental Restoration Division, ORNL Environmental Restoration Program, ES/ER/TM-96/R2. 54 pp.

Suter, G. W. II, R. A. Efroymson, B. E. Sample, and D. S. Jones, 2000. *Ecological Risk Assessment of Contaminated Sites.* CRC/Lewis Press. Boca Raton, FL.

Suter, G.W. II, 1990. Endpoints for regional ecological risk assessment. *Environmental Management.* 14:9-23.

Suter, G.W. II, 1989. Ecological endpoints. Chapter 2 IN Warren-Hicks, W., B.R. Parkhurst, and S.S. Baker, Jr. (eds). *Ecological assessment of hazardous waste sites: a field and laboratory reference.* EPA/600/3-89/013.

Suter, G.W. II, 1993. *Ecological risk assessment*. Lewis Publishers, Chelsea, MI. 538 pp.

TERRETOX, 2002. On-line terrestrial toxicity database. U.S. Environmental Protection Agency.

TCEQ, 2005. *Summary of Updates to the Tables Accompanying the Texas Risk Reduction Program (TRRP) Rule 1.*

URS, 2002. *Draft Marine Corps Base Camp Lejeune Range Inventory Report*. February.

U.S. Army Corps of Engineers, 2001. *Final Range Identification and Preliminary Range Assessment, Marine Corps Base Camp Lejeune.* Onslow County, North Carolina. December.

USEPA, 1986. *Guidelines for Health Risk Assessment of Chemical Mixtures*. Federal Register Vol. 51 34014-34041. September.

USEPA, 1989. *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual, Part A, Interim Final.* Office of Solid Waste and Emergency Response. EPA/540/1-89/002. December.

U.S.EPA, 1991. *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual, Part B: "Development of Risk-based Preliminary Remedial Goals"*. Office of Solid Waste and Emergency Response. OSWER Directive 9285.7-01B. December 13.

USEPA, 1993a. *Wildlife exposure factors handbook. Volume I of II.* EPA/600/R-93/187a.

USEPA, 1993b. *Technical basis for deriving sediment quality criteria for nonionic organic contaminants for the protection of benthic organisms by using equilibrium partitioning.* EPA/822/R-93/011.

USEPA, 1995a. *Internal report on summary of measured, calculated and recommended log k_{ow} values.* Environmental Research Laboratory, Athens, GA. 10 April.

USEPA, 1995b. *Great Lakes Water Quality Initiative criteria documents for the protection of wildlife: DDT, mercury, 2,3,7,8-TCDD, PCBs.* EPA/820/B-95/008.

USEPA, 1996a. *Superfund chemical data matrix.* EPA/540/R-96/028.

USEPA, 1996b. *Ecotox thresholds.* Eco Update, Volume 3, Number 2. EPA/540/F-95/038. 12 pp.

USEPA, 1997a. *Health Effects Assessment Summary Tables, FY-1997 Annual.* (HEAST). Office of Research and Development. July.

USEPA, 1997b. *Ecological risk assessment guidance for Superfund: process for designing and conducting ecological risk assessments.* Interim Final. EPA/540/R-97/006.

USEPA, 1997c. *Mercury study report to Congress. Volume VI: an ecological assessment of anthropogenic mercury emissions in the United States.* EPA/452/R-97/008.

USEPA, 1999. *Screening level ecological risk assessment protocol for hazardous waste combustion facilities.* Peer Review Draft. EPA/530/D-99/001.

USEPA, 2000a. *Supplemental Guidance to RAGS: Region 4 Bulletins*, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000: http://www.epa.gov/region 4/waste/oftecser/healthbul.htm Office of Technical Services, USEPA Region 4. May.

USEPA, 2000b. *Bioaccumulation testing and interpretation for the purpose of sediment quality assessment - status and needs.* EPA/823/R-00/001.

USEPA, 2001a. *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments*. Office of Solid Waste and Emergency Response. EPA 540-R-97-033. OSWER 9285.7-01D. December.

USEPA, 2001b. *Supplemental guidance to RAGS: Region 4 ecological risk assessment bulletins.* November.

USEPA, 2002. *Perchlorate environmental contamination: toxicological review and risk characterization.* External Review Draft. 16 January. NCEA-1-0503.

USEPA, 2003. *Human Health Toxicity Values in Superfund Risk Assessments.* OSWER Directive 9285.7-53. December.

USEPA, 2004a. *Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final*. OSWER 9285.7-02EP. July.

USEPA, 2004b. *Region 9 Preliminary Remediation Goal Table*. October.

USEPA, 2004c. *EPA Region 3 BTAG, Ecological Risk Assessment Frequently Asked Questions. Screening Benchmarks*. November.

USEPA, 2006a. National Recommended Water Quality Criteria. Office of Water, Office of Science and Technology.

USEPA, 2006b. *EPA Region III BTAG screening benchmarks.*

U. S. EPA, 2008. Integrated Risk Information System (IRIS).

U.S. Navy, 2000. *Overview of Screening, Risk Ratio, and Toxicological Evaluation. Procedures for Northern Division Human Health Risk Assessments*. May.

Water and Air Research, 1983. *Initial Assessment Study of Marine Corps Base, Camp Lejeune.* North Carolina.

Wentsel, R.S., T.W. LaPoint, M. Simini, R.T. Checkai, D. Ludwig, and L.W. Brewer. 1996. *Tri-service procedural guidelines for ecological risk assessments.* U.S. Department of the Navy, U.S. Department of the Air Force, and U.S. Department of the Army. June.

Wiemeyer, S.N. 1996. Other organochlorine pesticides in birds. Pages 99-115 IN Beyer, W.N., G.H. Heinz, and A.W. Redmon-Norwood (eds). *Environmental contaminants in wildlife: interpreting tissue concentrations.* Lewis Publishers, Boca Raton, FL. 494 pp.

Tables

TABLE 2-1
Groundwater Elevation and Well Construction Information
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March/April 2006 and September 2007

Well ID	Date Installed (mm/dd/yy)	Screened Interval (ft bgs)	Double Casing Depth (ft bgs)	Bottom of Well (ft bTOC)	Surveyed Top of Casing Elevation (ft msl)	Surveyed Ground Surface of Well (ft msl)	Depth to Water Mar 21, 06 (ft bTOC)	Depth to Water Apr 3, 06 (ft bTOC)	Depth to Water Sept 5, 07 (ft bTOC)	Groundwater Elevation Mar 21, 06 (ft msl)	Groundwater Elevation Apr 3, 06 (ft msl)	Groundwater Elevation Sept 5, 07 (ft msl)
MR04-MW01	03/17/06	12-22	N/A	24.91	22.5	19.61	16.73	17.05	18.76	5.77	5.45	3.74
MR04-MW02	03/19/06	40-45	40	48.05	22.4	19.56	16.69	17.07	18.72	5.71	5.33	3.68
MR04-MW03	03/16/06	13.7-23.7	N/A	25.08	22.41	19.72	19.00	19.30	20.61	3.41	3.11	1.80
MR04-MW04	03/16/06	14.7-24.7	N/A	27.75	24.84	22.22	19.95	20.27	21.95	4.89	4.57	2.89
MR04-MW05	03/16/06	5-15	N/A	17.80	22.76	20.01	10.57	10.91	12.71	12.19	11.85	10.05
MR04-MW06	03/15/06	40-45	40	45.21	22.92	20.11	19.92	20.15	21.30	3.00	2.77	1.62
MR04-MW07	03/17/06	7.2-17.2	N/A	20.29	24.66	21.94	12.55	12.79	12.82	12.11	11.87	11.84
MR04-MW08	03/15/06	9-19	N/A	22.42	12.32	9.43	11.12	11.23	11.94	1.20	1.09	0.38
MR04-MW09	03/18/06	35-40	35	43.27	12.23	9.34	11.07	11.15	11.85	1.16	1.08	0.38
MR04-MW10	03/17/06	10.7-20.7	N/A	23.72	16.68	14.05	16.67	16.47	16.66	0.01	0.21	0.02
MR04-MW11	03/15/06	17-27	N/A	27.07	18.86	19.24	17.93	17.98	18.33	0.93	0.88	0.53
MR04-MW12	03/18/06	45-50	45	50.04	18.59	19.01	17.70	17.73	18.11	0.89	0.86	0.48
MR04-MW13	03/16/06	15.1-25.1	N/A	28.13	21.93	19.29	21.18	21.22	21.59	0.75	0.71	0.34
MR04-MW14	03/15/06	5-15	N/A	17.56	7.49	4.68	7.41	7.30	7.49	0.08	0.19	0.00
MR04-MW15	03/18/06	28-33	28	36.27	7.09	4.22	6.98	7.07	7.07	0.11	0.02	0.02

Note:
ft bgs = feet below ground surface
ft bTOC = feet below top-of-casing
ft msl = feet above mean sea level
N/A = not applicable

TABLE 3-1
DGM Instruments Standardization Tests and Acceptance Criteria
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March-April 2006

Test	Test Description	Acceptance Criteria	Power On	Beginning of Day	Beginning and End of Day	First Time Instr. Used	2% of Total Area Surveyed
1	Equipment Warm-up	Equipment specific (typically 5 min)	X				
2	Record Sensor Positions	+/- 4 inch (2.54 cm)		X			
3	Personnel Test	Based on instrument used. Personnel, clothing, etc. should have no effect on instrument response.		X			
4	Vibration Test (Cable Shake)	Data profile does not exhibit data spikes		X			
5	Static Background & Static Spike	+/- 20% of standard item response, after background correction			X		
6	Six Line Test	Repeatability of response amplitude +/-20%, Positional Accuracy +/- 20 cm				X	
7	Repeat Data	Repeatability of response amplitude +/-20%, Positional Accuracy +/- 20 cm					X

TABLE 3-2
Groundwater Sampling Field Parameters
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March 2006 and September 2007

Station ID	MR04-MW01		MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05	
Sample Date	3/28/2006	9/9/2007	4/1/2006	9/12/2007	3/28/2006	9/9/2007	3/30/2006	9/9/2007	3/29/2006	9/9/2007
Field Parameters										
Dissolved Oxygen (mg/L)	7.06	2.49	1.11	0.80	3.10	0.49	2.28	1.70	2.11	6.00
Oxidation Reduction Potential (mV)	368.4	420	241.3	45	356.3	231	362.9	363	317.1	316
pH	4.04	2.41	7.94	7.94	3.68	4.15	4.19	2.96	4.13	4.12
Specific Conductance (mS/cm)	0.206	0.237	0.427	0.298	0.229	0.200	0.115	0.096	0.230	0.223
Temperature (C)	16.16	21.32	18.43	20.18	17.62	17.7	18.56	19.38	17.87	19.65
Turbidity (NTU)	2.38	5.20	2.63	85	9.94	186.0	1.76	29.40	4.53	33.80

Station ID	MR04-MW06		MR04-MW07		MR04-MW08		MR04-MW09		MR04-MW10	
Sample Date	3/31/2006	9/12/2007	3/28/2006	9/6/2007	3/30/2006	9/8/2007	3/30/2006	9/8/2007	3/29/2006	9/6/2007
Field Parameters										
Dissolved Oxygen (mg/L)	1.26	0.00	8.6	2.81	2.22	0.34	1.31	0.19	3.98	0.00
Oxidation Reduction Potential (mV)	128.8	-246	316.1	407	261.2	366	190.3	122	273.4	365
pH	10.88	13.04	4.00	1.63	4.39	2.72	6.04	5.11	4.46	2.21
Specific Conductance (mS/cm)	0.919	0.565	0.119	0.087	0.052	0.077	0.291	0.206	0.173	0.191
Temperature (C)	19.74	19.69	16.96	22.27	15.41	20.53	18.69	17.81	19.08	21.31
Turbidity (NTU)	36.70	570	6.72	0	2.18	5.5	3.68	194	7.38	12.9

Station ID	MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample Date	3/29/2006	9/9/2007	3/31/2006	9/12/2007	3/31/2006	9/8/2007	3/29/2006	9/8/2007	3/31/2006	9/8/2007
Field Parameters										
Dissolved Oxygen (mg/L)	3.44	1.51	2.04	0	2.04	0.69	4.21	2.02	3.05	0.00
Oxidation Reduction Potential (mV)	298.1	403	98.6	-89	274.1	268	278.2	272	73.5	-249
pH	4.60	2.52	12.85	10.26	4.60	4.11	4.46	4.12	12.35	12.31
Specific Conductance (mS/cm)	0.067	0.061	1.724	0.250	0.064	0.060	0.058	0.047	0.341	0.201
Temperature (C)	17.83	20.16	19.65	21.0	18.17	17.77	15.71	19.39	16.8	19.21
Turbidity (NTU)	1.40	30.10	15.40	16.90	2.84	6.10	6.83	4.50	5.38	32.60

TABLE 3-3
QA/QC Sampling Program
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March-April 2006 and September 2007

Sample Type	Description	Frequency	Analytes
Trip Blank	Designed to detect contamination of environmental samples during transport from the field to the laboratory. A trip blank is a VOC sample bottle filled with laboratory analyte-free water, transported to the site, handled like a sample, and returned to the laboratory for analysis. Trip blanks must not be opened in the field.	One per every cooler of soil and water samples sent to the laboratory for VOC analysis	VOCs only
Field Blank	Designed to detect contamination in the decontamination water. A field blank is decontamination water collected directly in the sample bottle. It shall be handled like a sample and transported to the laboratory for analysis.	One field blank from each source of decontamination water for each sampling event, where a sampling event is defined as one week	All laboratory analyses requested for the environmental samples collected at the site for that week
Equipment Blank	Designed to detect contamination of environmental samples caused by contamination of sampling equipment. An equipment blank is analyte-free water that is poured into or pumped through the sampling device, transferred to a sample bottle, and transported to the laboratory for analysis.	One per each day of sampling	All laboratory analyses requested for environmental samples collected at the site on that day
Field Duplicate	Designed to check precision of data in the laboratory. A field duplicate is a sample collected in addition to the native sample at the same sampling location during the same sampling event.	10%	Same parameters as parent sample
MS/MSD	Designed to evaluate potential matrix interferences, accuracy, and precision. Three aliquots of a single sample – one native and two spiked with the same concentration of matrix spike compounds – are analyzed.	5%	Same parameters as parent sample

TABLE 4-1
Phase I Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March 2006

Station ID	**NC-SSLs (May 2005)**	**Camp Lejeune Background SB 2X Mean**	MR04-SS02	MR04-SS04	MR04-SS08	MR04-SS10
Sample ID			MR04-SS02-0-2	MR04-SS04-0-2	MR04-SS08-0-2	MR04-SS10-0-2
Sample Date			03/15/06	03/13/06	03/14/06	03/14/06
Chemical Name						
Volatile Organic Compounds (UG_KG)						
Acetone	2,810	--	9.8 U	12	12 J	11 U
Semi-volatile Organic Compounds (UG_KG)						
Di-n-butylphthalate	24,800	--	100 J	400 U	390 U	43 J
Fluoranthene	276,000	--	390 U	400 U	390 U	380 U
Pyrene	286,000	--	390 U	400 U	390 U	380 U
bis(2-Ethylhexyl)phthalate	6,670	--	91 J	230 J	93 J	360 J
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	129	--	7.3	2.4 J	3.9 U	3.8 U
4,4'-DDE	--	--	240	120	3.5 J	3.8 U
4,4'-DDT	1,360	--	110 J	53	1.1 J	1.1 J
Dieldrin	1.13	--	7.4	1.2 J	3.9 U	3.8 U
Endrin	440	--	3.9 U	4 U	3.9 U	3.8 U
Endrin aldehyde	--	--	3.9 U	0.29 J	3.9 U	3.8 U
Endrin ketone	--	--	3.9 U	4 U	3.9 U	0.6 J
Heptachlor	2.3	--	2 U	2 U	0.25 J	1.9 U
Explosives (UG/KG)						
Nitrobenzene	--	--	20 J	66 J	74 J	100 UJ
Total Metals (MG/KG)						
Aluminum	--	5,487	**11,300**	5,460	**19,100**	2,640
Antimony	5.42	0.447	0.59 U	0.56 UJ	0.56 UJ	0.55 UJ
Arsenic	5.4	0.626	**0.94 J**	**0.62 J**	**4.6 J-**	1.7 UJ
Barium	848	14.5	36.9 U	34.8 U	35.3 U	34.1 U
Beryllium	3.38	0.103	0.067 J	0.87 U	0.88 U	0.85 U
Calcium	--	6,360	5,110	1,960	1,940	852 U
Chromium	27.2	6.05	**12.6 J**	5.3	**28.7**	3.1
Cobalt	--	0.294	0.27 J	0.16 U	**0.41 J**	0.15 U
Copper	704	4.83	0.94 J	1.5 J	1.7 J	1.4 J
Iron	151	3,245	**5,640 J**	**3,430**	**18,300**	1,710
Lead	270	12.3	**12.7 J**	**12.7**	10.7	3.9
Magnesium	--	238	923 U	871 U	881 U	852 U
Manganese	65.2	13.7	9.5	10.7	8.9	3.5
Mercury	0.0154	0.081	0.023 J	0.031 J	0.03 J	0.023 J
Nickel	56.4	1.21	1.8 J	1.1 J	2.2 J	0.43 J
Potassium	--	116	**256 J**	871 U	881 U	852 U
Selenium	12.2	0.563	**0.68 J**	**0.57 J**	**0.81 J**	0.53 U
Sodium	--	80.9	923 U	80.5 J	**107 J**	73.2 J
Vanadium	--	8.9	**16.5 J**	**9.1**	**38.3**	4.5 J
Zinc	550	10.8	7.9 J	9.6	9.2	3.4 U
Wet Chemistry (MG/KG)						
% Solids	--	--	85	83	85	89
Total organic carbon (TOC)	--	--	2,200	14,000	21,000	3,400
pH	--	--	7.1	7.1	6.2	4.6
Total Petroleum Hydrocarbons (MG_KG)						
TPH-diesel range	--	--	14 J	5.1	3.6	3.2
TPH-gas range	--	--	0.12	0.06 J	0.12 U	0.11 U

Notes:
Shading exceeds NC SSLs (Soil Screening Levels)
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
J+- Reported value is estimated biased high
R- Unreliable result
UJ- Analyte not detected. Quanitation limit is imprecise

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-A01		MR04-A02		MR04-A03		MR04-A04		MR04-A05		MR04-B01		MR04-B02		MR04-B03	
Sample ID			MR04-A01-0-1-07D	MR04-A01-07D	MR04-A02-0-1-07D	MR04-A02-07D	MR04-A03-0-1-07D[1]	MR04-A03-07D[1]	MR04-A04-0-1-07D	MR04-A04-07D	MR04-A05-0-1-07D	MR04-A05-07D	MR04-B01-0-1-07D	MR04-B01-07D	MR04-B02-0-1-07D	MR04-B02-07D	MR04-B03-0-1-07D	MR04-B03-07D
Sample Date			10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1-Dichloroethane	51,000	--	NA	3 J	NA	12 U	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dichloroethane	280	--	NA	5 J	NA	12 U	NA	14 U	NA	6.4 J	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dichloropropane	340	--	NA	32	NA	12 U	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
2-Butanone	2,200,000	--	NA	35 J	NA	12 UJ	NA	14 U	NA	12 U	NA	14 U	NA	22 J	NA	12 UJ	NA	18 UJ
4-Methyl-2-pentanone	530,000	--	NA	12 U	NA	12 UJ	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	14	NA	18 U
Acetone	1,400,000	--	NA	770 J	NA	9.3 J	NA	7.5 J	NA	5.7 J	NA	6.4 J	NA	650 J	NA	130 J	NA	890 J
Benzene	640	--	NA	12 U	NA	12 U	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Bromomethane	390	--	NA	2.9 J	NA	12 U	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Chloroform	220	--	NA	12 U	NA	12 U	NA	14 U	NA	12 U	NA	2.7 J	NA	15 U	NA	12 U	NA	18 U
Methyl acetate	2,200,000	--	NA	14	NA	12 UJ	NA	14 U	NA	12 U	NA	14 U	NA	41	NA	42	NA	18 U
Styrene	1,700,000	--	NA	12 U	NA	12 UJ	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Toluene	520,000	--	NA	12 U	NA	12 UJ	NA	14 U	NA	12 U	NA	14 U	NA	3.3 J	NA	12 U	NA	18 U
Trichloroethene	53	--	NA	33	NA	12	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
cis-1,3-Dichloropropene	780	--	NA	4.9 J	NA	12 U	NA	14 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Semi-volatile Organic Compounds (UG_KG)																		
Acenaphthene	370,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Acetophenone	--	--	22 J	NA	360 U	NA	370 U	NA	18 J	NA	22 J	NA	29 J	NA	25 J	NA	490 U	NA
Anthracene	2,200,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzaldehyde	610,000	--	370 UJ	NA	27 J	NA	39 J	NA	41 J	NA	74 J	NA	490 U	NA	460 U	NA	60 J	NA
Benzo(a)anthracene	620	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(a)pyrene	62	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(b)fluoranthene	620	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(g,h,i)perylene	230,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(k)fluoranthene	6,200	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Butylbenzylphthalate	1,200,000	--	31 J	NA	27 J	NA	33 J	NA	28 J	NA	20 J	NA	37 J	NA	460 U	NA	35 J	NA
Caprolactam	3,100,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	150 J	NA	220 J	NA	250 J	NA
Carbazole	24,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Chrysene	62,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Di-n-butylphthalate	610,000	--	22 J	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Di-n-octylphthalate	240,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Fluoranthene	230,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Indeno(1,2,3-cd)pyrene	620	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Phenanthrene	230,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Pyrene	230,000	--	370 U	NA	360 U	NA	370 U	NA	360 UJ	NA	360 UJ	NA	490 U	NA	460 U	NA	490 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	370 U	NA	360 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	2,400	--	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	2.5 J	NA	4.6 U	NA	3.2 J	NA
4,4'-DDE	1,700	--	5.1	NA	2.1 J	NA	3.8 U	NA	3.6 U	NA	1.8 J	NA	100	NA	9.4	NA	35	NA
4,4'-DDT	1,700	--	2.5 J	NA	2.9 J	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	31	NA	9.2	NA	40	NA
Aldrin	29	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
Aroclor-1260	--	--	37 U	NA	36 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Dieldrin	30	--	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	39	NA	18	NA	4.8 U	NA
Endosulfan II	37,000	--	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	3.6 J	NA	4.6 U	NA	4.8 U	NA
Endrin	1,800	--	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.6 U	NA	4.8 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	7.3 J	NA	2.4 U	NA	2.5 U	NA
alpha-BHC	90	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
alpha-Chlordane	1,600	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	87 J	NA	5.3 J	NA	2.5 U	NA
gamma-BHC (Lindane)	440	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	64	NA	2.8	NA	1.9 J	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	180,000	--	120 U	NA	120 U	NA	120 U	NA	120 U	NA	65 J	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	--	--	120 UJ	NA	120 UJ	NA	120 U	NA	120 U	NA	590	NA	120 U	NA	250	NA	120 U	NA
Total Metals (MG_KG)																		
Aluminum	7,600	5,487	3,770	NA	5,650	NA	4,040	NA	2,950	NA	2,600	NA	3,710	NA	2,820	NA	4,400	NA
Antimony	3.1	0.447	4.9 UJ	NA	4.9 UJ	NA	5 UJ	NA	4.8 UJ	NA	4.8 UJ	NA	5.9 UJ	NA	5.8 UJ	NA	5.8 UJ	NA
Arsenic	0.39	0.626	1.2	NA	1.2	NA	0.97	NA	0.65 J	NA	0.61 J	NA	0.85 J	NA	1.1	NA	1.7	NA
Barium	540	14.5	11.4 J	NA	17.6	NA	12.9 J	NA	10.6 J	NA	10.6 J	NA	12.5 J	NA	9.3 J	NA	10 J	NA
Beryllium	15	0.103	0.41 U	NA	0.41 U	NA	0.42 U	NA	0.4 U	NA	0.4 U	NA	0.49 U	NA	0.49 U	NA	0.49 U	NA
Cadmium	3.7	0.033	0.063 J	NA	0.058 J	NA	0.04 J	NA	0.039 J	NA	0.036 J	NA	0.26 J	NA	0.15 J	NA	0.059 J	NA
Calcium	--	6,360	984	NA	616	NA	179 J	NA	155 J	NA	195 J	NA	726	NA	9,480	NA	7,480	NA
Chromium	22	6.05	4.8	NA	5.7	NA	3.8	NA	2.8	NA	2.9	NA	3.9	NA	4	NA	6.3	NA
Cobalt	140	0.294	0.24 J	NA	0.33 J	NA	0.2 J	NA	0.16 J	NA	0.17 J	NA	0.28 J	NA	0.2 J	NA	0.22 J	NA
Copper	310	4.83	1.2 J	NA	3.2	NA	1.8 J	NA	1.3 J	NA	1.3 J	NA	4.3	NA	4.1	NA	1.2 J	NA
Cyanide	120	--	2.4 U	NA	2.2 U	NA	2.4 U	NA	2.7 U	NA	2.5 U	NA	3.5 U	NA	3.2 U	NA	3.5 U	NA
Iron	2,300	3,245	3,230 J	NA	3,120 J	NA	1,860 J	NA	1,460 J	NA	1,540 J	NA	1,990	NA	2,100	NA	3,680	NA
Lead	400	12.3	16.9	NA	18.4	NA	10.3	NA	8.7	NA	20.3	NA	26.2	NA	21.6	NA	10.2	NA
Magnesium	--	238	169 J	NA	229 J	NA	159 J	NA	139 J	NA	138 J	NA	122 J	NA	231 J	NA	259 J	NA
Manganese	180	13.7	19	NA	25.7	NA	23.1	NA	23.7	NA	14.4	NA	13	NA	10.9	NA	9.2	NA
Mercury	2.3	0.081	0.034 J	NA	0.02 J	NA	0.041 J	NA	0.012 J	NA	0.031 J	NA	0.048 J	NA	0.04 J	NA	0.15 U	NA
Nickel	160	1.21	1.2 J	NA	1.7 J	NA	1.2 J	NA	0.96 J	NA	0.93 J	NA	1.4 J	NA	1.1 J	NA	1.2 J	NA
Potassium	--	116	125 J	NA	148 J	NA	104 J	NA	86.3 J	NA	81.4 J	NA	105 J	NA	101 J	NA	167 J	NA
Selenium	39	0.563	2.8 U	NA	2.8 U	NA	2.9 U	NA	2.8 U	NA	2.8 U	NA	3.5 U	NA	3.4 U	NA	3.4 U	NA
Sodium	--	80.9	15.8 J	NA	19.1 J	NA	14.2 J	NA	19 J	NA	18.2 J	NA	14 J	NA	23.5 J	NA	44.7 J	NA
Vanadium	7.8	8.9	8.9	NA	8.2	NA	6.1	NA	4.6	NA	4.9	NA	5.7	NA	5.5	NA	9.8	NA
Zinc	2,300	10.8	10.4 J	NA	21.1 J	NA	4.6 J	NA	4.6 J	NA	5.2 J	NA	233	NA	15.4	NA	4.8 J	NA
Wet Chemistry (MG_KG)																		
No Detections																		

U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-B04		MR04-B05		MR04-B06		MR04-B07		MR04-B08		MR04-C01		MR04-C02		MR04-C03	
Sample ID			MR04-B04-0-1-07C	MR04-B04-07C	MR04-B05-0-1-07D[1]	MR04-B05-07D[1]	MR04-B06-0-1-07D[1]	MR04-B06-07D[1]	MR04-B07-0-1-07D	MR04-B07-07D	MR04-B08-0-1-07D	MR04-B08-07D	MR04-C01-0-1-07D	MR04-C01-07D	MR04-C02-0-1-07D	MR04-C02-07D	MR04-C03-0-1-07D	MR04-C03-07D
Sample Date			09/11/07	09/11/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/22/07	10/22/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1-Dichloroethane	51,000	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
1,2-Dichloroethane	280	--	NA	12 U	NA	4.6 J	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
1,2-Dichloropropane	340	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
2-Butanone	2,200,000	--	NA	5.4 J	NA	11 U	NA	11 U	NA	11 U	NA	11 J	NA	5.4 J	NA	7.5 J	NA	4.3 J
4-Methyl-2-pentanone	530,000	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
Acetone	1,400,000	--	NA	39	NA	58	NA	46	NA	28	NA	180	NA	95 J	NA	140 J	NA	41 J
Benzene	640	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	0.47 J
Bromomethane	390	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
Chloroform	220	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
Methyl acetate	2,200,000	--	NA	3.3 J	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	6.2 J	NA	20 J	NA	4.8 J
Styrene	1,700,000	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	1.8 J	NA	11 U	NA	14 U	NA	6 U
Toluene	520,000	--	NA	1 J	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	3.9 J	NA	1.5 J
Trichloroethene	53	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
cis-1,3-Dichloropropene	780	--	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U	NA	6 U
Semi-volatile Organic Compounds (UG_KG)																		
Acenaphthene	370,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Acetophenone	--	--	380 U	NA	16 J	NA	18 J	NA	28 J	NA	36 J	NA	400 U	NA	450 U	NA	380 U	NA
Anthracene	2,200,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Benzaldehyde	610,000	--	380 UJ	NA	350 UJ	NA	42 J	NA	80 J	NA	150 J	NA	400 U	NA	450 U	NA	380 U	NA
Benzo(a)anthracene	620	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Benzo(a)pyrene	62	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Benzo(b)fluoranthene	620	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Benzo(g,h,i)perylene	230,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Benzo(k)fluoranthene	6,200	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Butylbenzylphthalate	1,200,000	--	380 U	NA	33 J	NA	26 J	NA	28 J	NA	20 J	NA	400 U	NA	450 U	NA	380 U	NA
Caprolactam	3,100,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	390 J	NA	380 U	NA
Carbazole	24,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Chrysene	62,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Di-n-butylphthalate	610,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Di-n-octylphthalate	240,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Fluoranthene	230,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	30 J	NA	23 J	NA	380 U	NA
Indeno(1,2,3-cd)pyrene	620	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Phenanthrene	230,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Pyrene	230,000	--	380 U	NA	350 U	NA	370 UJ	NA	370 UJ	NA	380 UJ	NA	19 J	NA	450 UJ	NA	380 UJ	NA
bis(2-Ethylhexyl)phthalate	35,000	--	380 U	NA	350 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA	380 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	2,400	--	2 J	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	2.6 J	NA	4.5 U	NA	3.7 U	NA
4,4'-DDE	1,700	--	64	NA	11	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	62	NA	7.2	NA	34	NA
4,4'-DDT	1,700	--	29	NA	3.2 J	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	34	NA	10	NA	25	NA
Aldrin	29	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
Aroclor-1260	--	--	37 U	NA	35 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA	37 U	NA
Dieldrin	30	--	3.7 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	6.9	NA	4.5 U	NA	3.7 U	NA
Endosulfan II	37,000	--	3.7 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA	3.7 U	NA
Endrin	1,800	--	7.4	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA	3.7 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
alpha-BHC	90	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
alpha-Chlordane	1,600	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
gamma-BHC (Lindane)	440	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	180,000	--	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	--	--	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA
Total Metals (MG_KG)																		
Aluminum	7,600	5,487	3,310	NA	3,820	NA	4,920	NA	4,000	NA	3,830	NA	4,180	NA	4,080	NA	3,970	NA
Antimony	3.1	0.447	5.1 UJ	NA	4.9 UJ	NA	5 UJ	NA	4.9 UJ	NA	5.2 UJ	NA	0.46 J	NA	0.35 J	NA	5.1 U	NA
Arsenic	0.39	0.626	1.2 U	NA	1.2	NA	1.4	NA	0.94	NA	0.72 J	NA	1.8	NA	1.5	NA	1.2	NA
Barium	540	14.5	74.8 J	NA	9 J	NA	11.6 J	NA	12.4 J	NA	13.8 J	NA	16.1 J	NA	17.5 J	NA	14.4 J	NA
Beryllium	15	0.103	0.018 J	NA	0.41 U	NA	0.41 U	NA	0.41 U	NA	0.44 U	NA	0.1 J	NA	0.069 J	NA	0.074 J	NA
Cadmium	3.7	0.033	0.044 J	NA	0.065 J	NA	0.051 J	NA	0.41 U	NA	0.039 J	NA	0.43 U	NA	0.5 U	NA	0.43 U	NA
Calcium	--	6,360	21,400 J	NA	27,600	NA	229 J	NA	171 J	NA	118 J	NA	6,350	NA	4,710	NA	12,500	NA
Chromium	22	6.05	4	NA	4.7	NA	5.4	NA	3.9	NA	3.6	NA	5.4	NA	5	NA	4.4	NA
Cobalt	140	0.294	0.16 J	NA	0.25 J	NA	0.29 J	NA	0.22 J	NA	0.2 J	NA	0.29 J	NA	0.23 J	NA	0.25 J	NA
Copper	310	4.83	1.5 J	NA	0.95 J	NA	1.4 J	NA	1 J	NA	1.1 J	NA	3.2	NA	3.4	NA	2.6	NA
Cyanide	120	--	2.3 U	NA	2.7 U	NA	2.8 U	NA	2.7 U	NA	2.4 U	NA	2.5 U	NA	2.9 U	NA	2.8 U	NA
Iron	2,300	3,245	1,990	NA	2,060 J	NA	3,150 J	NA	2,040 J	NA	2,000 J	NA	2,940	NA	2,530	NA	2,460	NA
Lead	400	12.3	13.1	NA	6.1	NA	9.2	NA	8.9	NA	10	NA	50	NA	103	NA	27	NA
Magnesium	--	238	402 J	NA	503	NA	210 J	NA	168 J	NA	160 J	NA	249 J	NA	205 J	NA	335 J	NA
Manganese	180	13.7	15.6 J	NA	18.5	NA	12.9	NA	11.9	NA	9	NA	19.9	NA	14.5	NA	15.1	NA
Mercury	2.3	0.081	0.22 U	NA	0.024 J	NA	0.033 J	NA	0.045 J	NA	0.013 J	NA	0.1 U	NA	0.036 J	NA	0.032 J	NA
Nickel	160	1.21	1 J	NA	1.4 J	NA	1.2 J	NA	1.1 J	NA	0.94 J	NA	1.9 J	NA	1.7 J	NA	1.4 J	NA
Potassium	--	116	139 J	NA	150 J	NA	158 J	NA	115 J	NA	89.3 J	NA	120 J	NA	126 J	NA	131 J	NA
Selenium	39	0.563	0.51 J	NA	2.8 U	NA	2.9 U	NA	2.9 U	NA	3 U	NA	0.27 J	NA	0.25 J	NA	0.36 J	NA
Sodium	--	80.9	38.3 J	NA	57.9 J	NA	16.8 J	NA	18.6 J	NA	37.7 J	NA	23 J	NA	28.5 J	NA	46.6 J	NA
Vanadium	7.8	8.9	6.4	NA	6.2	NA	9.3	NA	6.8	NA	5.2	NA	8.8	NA	6.7	NA	7.1	NA
Zinc	2,300	10.8	14.8	NA	5.8 J	NA	5.1 J	NA	4 J	NA	6 J	NA	38.2	NA	58.9	NA	44.2	NA
Wet Chemistry (MG_KG)																		
No Detections																		

U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-C04		MR04-C05		MR04-C06		MR04-C07		MR04-C08		MR04-C09		MR04-C10		MR04-C11	
Sample ID			MR04-C04-0-1-07D	MR04-C04-07D	MR04-C05-0-1-07C	MR04-C05-07C	MR04-C06-0-1-07C	MR04-C06-07C	MR04-C07-0-1-07C	MR04-C07-07C	MR04-C08-0-1-07D	MR04-C08-07D	MR04-C09-0-1-07C	MR04-C09-07C	MR04-C10-0-1-07D	MR04-C10-07D	MR04-C11-0-1-07D	MR04-C11-07D
Sample Date			10/20/07	10/20/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/21/07	10/21/07	09/11/07	09/11/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1-Dichloroethane	51,000	--	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dichloroethane	280	--	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dichloropropane	340	--	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
2-Butanone	2,200,000	--	NA	11	NA	55 J	NA	13 U	NA	14 J	NA	20 J	NA	11 U	NA	16	NA	17 J
4-Methyl-2-pentanone	530,000	--	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Acetone	1,400,000	--	NA	400 J	NA	1,200 J	NA	27 J	NA	200 J	NA	330 J	NA	18	NA	390 J	NA	410 J
Benzene	640	--	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Bromomethane	390	--	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Chloroform	220	--	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Methyl acetate	2,200,000	--	NA	25	NA	760 J	NA	5 J	NA	610 J	NA	38	NA	11 U	NA	410 J	NA	35
Styrene	1,700,000	--	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Toluene	520,000	--	NA	4 J	NA	5 J	NA	13 UJ	NA	16 UJ	NA	0.96 J	NA	11 U	NA	1.3 J	NA	1.2 J
Trichloroethene	53	--	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
cis-1,3-Dichloropropene	780	--	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Semi-volatile Organic Compounds (UG_KG)																		
Acenaphthene	370,000	--	360 U	NA	26 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Acetophenone	--	--	360 U	NA	400 U	NA	380 U	NA	27 J	NA	40 J	NA	360 U	NA	27 J	NA	370 U	NA
Anthracene	2,200,000	--	360 U	NA	24 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzaldehyde	610,000	--	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 UJ	NA	390 U	NA	370 U	NA
Benzo(a)anthracene	620	--	360 U	NA	110 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(a)pyrene	62	--	360 U	NA	100 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(b)fluoranthene	620	--	360 U	NA	110 J	NA	20 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(g,h,i)perylene	230,000	--	360 U	NA	34 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(k)fluoranthene	6,200	--	360 U	NA	160 J	NA	31 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Butylbenzylphthalate	1,200,000	--	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	43 J	NA
Caprolactam	3,100,000	--	55 J	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Carbazole	24,000	--	360 U	NA	18 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Chrysene	62,000	--	360 U	NA	130 J	NA	30 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Di-n-butylphthalate	610,000	--	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	21 J	NA	390 U	NA	370 U	NA
Di-n-octylphthalate	240,000	--	360 U	NA	400 U	NA	380 U	NA	22 J	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Fluoranthene	230,000	--	360 U	NA	230 J	NA	27 J	NA	430 U	NA	510 U	NA	19 J	NA	390 U	NA	26 J	NA
Indeno(1,2,3-cd)pyrene	620	--	360 U	NA	32 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Phenanthrene	230,000	--	360 U	NA	130 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Pyrene	230,000	--	360 UJ	NA	200 J	NA	34 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	22 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	360 U	NA	400 U	NA	770	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	2,400	--	3.6 U	NA	2 J	NA	3.8 U	NA	2.7 J	NA	5.1 U	NA	1.2 J	NA	3.9 U	NA	4.7	NA
4,4'-DDE	1,700	--	19	NA	39	NA	13	NA	87	NA	45 J	NA	24	NA	12	NA	57	NA
4,4'-DDT	1,700	--	20	NA	28	NA	14	NA	100	NA	14	NA	21	NA	39	NA	170	NA
Aldrin	29	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 UJ	NA	2 U	NA	1.9 U	NA
Aroclor-1260	--	--	36 U	NA	40 U	NA	31 J	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Dieldrin	30	--	7.5	NA	4.8 J	NA	4.2	NA	4.8	NA	20	NA	3.6 U	NA	89	NA	3.7 U	NA
Endosulfan II	37,000	--	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 U	NA	3.9 U	NA	3.7 U	NA
Endrin	1,800	--	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 J	NA	3.9 U	NA	3.7 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
alpha-BHC	90	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	8.7 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
alpha-Chlordane	1,600	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
gamma-BHC (Lindane)	440	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.7 J	NA	1.9 UJ	NA	2 U	NA	1.9 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	3.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	180,000	--	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	--	--	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
Total Metals (MG_KG)																		
Aluminum	7,600	5,487	5,280	NA	4,410	NA	3,000	NA	3,490	NA	3,730	NA	2,720	NA	4,170	NA	5,040	NA
Antimony	3.1	0.447	0.81 J	NA	0.62 J	NA	0.36 J	NA	0.46 J	NA	7.1 UJ	NA	5.1 UJ	NA	5.5 UJ	NA	4.4 UJ	NA
Arsenic	0.39	0.626	1.5	NA	1.3	NA	0.96	NA	1.2	NA	1.6	NA	1.2 U	NA	2.7	NA	3	NA
Barium	540	14.5	20.6	NA	38.1	NA	17.2 J	NA	12 J	NA	14.8 J	NA	11.2 J	NA	17.2 J	NA	15.6	NA
Beryllium	15	0.103	0.1 J	NA	0.075 J	NA	0.044 J	NA	0.048 J	NA	0.59 U	NA	0.017 J	NA	0.46 U	NA	0.37 U	NA
Cadmium	3.7	0.033	0.4 U	NA	0.35 J	NA	0.43 U	NA	0.24 J	NA	0.18 J	NA	0.067 J	NA	0.11 J	NA	0.05 J	NA
Calcium	--	6,360	5,450	NA	16,200	NA	5,710	NA	23,600	NA	9,520	NA	25,300 J	NA	30,900	NA	482	NA
Chromium	22	6.05	6.1	NA	6 J	NA	6.2 J	NA	4.4 J	NA	4.7	NA	4.1	NA	10.6	NA	10.1	NA
Cobalt	140	0.294	0.32 J	NA	0.32 J	NA	0.23 J	NA	0.21 J	NA	0.28 J	NA	0.18 J	NA	0.3 J	NA	0.47 J	NA
Copper	310	4.83	4.4	NA	4.7	NA	2.7	NA	1.8 J	NA	7	NA	1.8 J	NA	2 J	NA	3.8	NA
Cyanide	120	--	2.7 U	NA	2.9 U	NA	2.6 U	NA	2.8 U	NA	3.5 U	NA	2.7 U	NA	2.7 U	NA	0.15 J	NA
Iron	2,300	3,245	2,920	NA	2,570	NA	1,830	NA	1,960	NA	3,190	NA	1,660	NA	9,470	NA	7,080	NA
Lead	400	12.3	25.1	NA	63.6	NA	56.6	NA	28.2	NA	17.4	NA	35.6	NA	29.8	NA	29.7	NA
Magnesium	--	238	265 J	NA	416 J	NA	202 J	NA	477 J	NA	275 J	NA	516	NA	552	NA	208 J	NA
Manganese	180	13.7	18.2	NA	22.2 J	NA	15.5 J	NA	21.9 J	NA	18.5	NA	12.1 J	NA	18.8	NA	7.9	NA
Mercury	2.3	0.081	0.064 J	NA	0.38	NA	0.029 J	NA	0.016 J	NA	0.047 J	NA	0.079 U	NA	0.044 J	NA	0.027 J	NA
Nickel	160	1.21	1.7 J	NA	1.7 J	NA	2.2 J	NA	1.5 J	NA	2.1 J	NA	1.2 J	NA	1.3 J	NA	1.7 J	NA
Potassium	--	116	174 J	NA	169 J	NA	112 J	NA	152 J	NA	136 J	NA	130 J	NA	203 J	NA	223 J	NA
Selenium	39	0.563	0.39 J	NA	0.55 J	NA	3 U	NA	0.39 J	NA	4.1 U	NA	0.48 J	NA	0.59 J	NA	0.33 J	NA
Sodium	--	80.9	26.1 J	NA	42.7 J	NA	26 J	NA	56.6 J	NA	28.4 J	NA	57 J	NA	37.6 J	NA	14.6 J	NA
Vanadium	7.8	8.9	7.9	NA	7.3	NA	5.6	NA	6.4	NA	6.1	NA	5.6	NA	18.4	NA	19.3	NA
Zinc	2,300	10.8	60.6	NA	98.4	NA	33.8	NA	36.3	NA	21.5	NA	14.3	NA	11.9	NA	23.6	NA
Wet Chemistry (MG_KG)																		
No Detections																		

U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-C12		MR04-C13		MR04-C14		MR04-C15		MR04-D01		MR04-D02		MR04-D03		MR04-D04	
Sample ID			MR04-C12-0-1-07D	MR04-C12-07D	MR04-C13-0-1-07D	MR04-C13-07D	MR04-C14-0-1-07D	MR04-C14-07D	MR04-C15-0-1-07D	MR04-C15-07D	MR04-D01-0-1-07D	MR04-D01-07D	MR04-D02-0-1-07D[2]	MR04-D02-07D[1]	MR04-D03-0-1-07D	MR04-D03-07D	MR04-D04-0-1-07D	MR04-D04-07D
Sample Date			10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1-Dichloroethane	51,000	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
1,2-Dichloroethane	280	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
1,2-Dichloropropane	340	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
2-Butanone	2,200,000	--	NA	4 J	NA	21	NA	14 J	NA	21	NA	11 U	NA	13 U	NA	15 U	NA	9.9 J
4-Methyl-2-pentanone	530,000	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Acetone	1,400,000	--	NA	66 J	NA	240	NA	200 J	NA	240	NA	11 UJ	NA	13 UJ	NA	22 J	NA	170 J
Benzene	640	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Bromomethane	390	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Chloroform	220	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Methyl acetate	2,200,000	--	NA	5.8	NA	82	NA	37	NA	120 J	NA	11 U	NA	13 U	NA	15 U	NA	3.4 J
Styrene	1,700,000	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Toluene	520,000	--	NA	5.1 U	NA	2.5 J	NA	11 U	NA	1.5 J	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Trichloroethene	53	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15	NA	11 U	NA	13 U	NA	15 U	NA	11 U
cis-1,3-Dichloropropene	780	--	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	15 U	NA	11 U
Semi-volatile Organic Compounds (UG_KG)																		
Acenaphthene	370,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Acetophenone	--	--	370 U	NA	29 J	NA	32 J	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Anthracene	2,200,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Benzaldehyde	610,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 UJ	NA	430 U	NA	430 U	NA	360 U	NA
Benzo(a)anthracene	620	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	25 J	NA	47 J	NA	360 U	NA
Benzo(a)pyrene	62	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	28 J	NA	41 J	NA	360 U	NA
Benzo(b)fluoranthene	620	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	51 J	NA	37 J	NA	360 U	NA
Benzo(g,h,i)perylene	230,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	20 J	NA	360 U	NA
Benzo(k)fluoranthene	6,200	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	45 J	NA	47 J	NA	360 U	NA
Butylbenzylphthalate	1,200,000	--	370 U	NA	55 J	NA	72 J	NA	43 J	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Caprolactam	3,100,000	--	370 U	NA	140 J	NA	230 J	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Carbazole	24,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Chrysene	62,000	--	370 U	NA	34 J	NA	540 U	NA	360 U	NA	360 U	NA	38 J	NA	49 J	NA	360 U	NA
Di-n-butylphthalate	610,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	35 J	NA	430 U	NA	360 U	NA
Di-n-octylphthalate	240,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	430 U	NA	360 U	NA
Fluoranthene	230,000	--	42 J	NA	43 J	NA	540 U	NA	28 J	NA	360 U	NA	29 J	NA	100 J	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	620	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	20 J	NA	360 U	NA
Phenanthrene	230,000	--	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	61 J	NA	360 U	NA
Pyrene	230,000	--	43 J	NA	59 J	NA	540 U	NA	35 J	NA	360 U	NA	46 J	NA	76 J	NA	360 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	370 U	NA	470	NA	540 U	NA	360 U	NA	52 J	NA	430 U	NA	430 U	NA	360 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	2,400	--	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	12	NA	2.4 J	NA	3.6 U	NA
4,4'-DDE	1,700	--	21	NA	42	NA	46	NA	50	NA	9.6	NA	66	NA	13	NA	18	NA
4,4'-DDT	1,700	--	10	NA	19	NA	23	NA	32	NA	9	NA	130	NA	11	NA	21	NA
Aldrin	29	--	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.1 J	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Aroclor-1260	--	--	37 U	NA	24 J	NA	54 U	NA	36 U	NA	36 U	NA	62	NA	43 U	NA	36 U	NA
Dieldrin	30	--	3.7 U	NA	4.6 U	NA	5.4 U	NA	33	NA	1.9 J	NA	16	NA	9.3 J	NA	4.6	NA
Endosulfan II	37,000	--	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.3 U	NA	3.6 U	NA
Endrin	1,800	--	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.3 U	NA	3.6 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
alpha-BHC	90	--	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
alpha-Chlordane	1,600	--	1.1 J	NA	2.4 U	NA	2.8 U	NA	7.5 J	NA	1.8 U	NA	2.2 U	NA	2.2 J	NA	1.8 U	NA
gamma-BHC (Lindane)	440	--	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	2.4 U	NA	2.8 U	NA	5.1	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	180,000	--	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	--	--	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Total Metals (MG_KG)																		
Aluminum	7,600	5,487	4,740	NA	5,800	NA	4,640	NA	3,800	NA	5,080	NA	4,780	NA	5,340	NA	4,300	NA
Antimony	3.1	0.447	5.1 UJ	NA	6.3 UJ	NA	6.5 UJ	NA	4.8 UJ	NA	4.9 UJ	NA	5.7 UJ	NA	5.7 UJ	NA	4.9 UJ	NA
Arsenic	0.39	0.626	1.8	NA	2.1	NA	1.8	NA	2.6	NA	1.8	NA	1.3	NA	0.78 J	NA	0.72 J	NA
Barium	540	14.5	15.5 J	NA	21.8	NA	13.9 J	NA	10.1 J	NA	25.4	NA	15.4 J	NA	17.1 J	NA	22.6	NA
Beryllium	15	0.103	0.42 U	NA	0.53 U	NA	0.55 U	NA	0.4 U	NA	0.073 J	NA	0.058 J	NA	0.064 J	NA	0.059 J	NA
Cadmium	3.7	0.033	0.1 J	NA	0.15 J	NA	0.091 J	NA	0.057 J	NA	0.23 J	NA	0.48 U	NA	0.48 U	NA	0.4 U	NA
Calcium	--	6,360	974	NA	1,900	NA	6,150	NA	1,790	NA	6,800	NA	1,530	NA	1,410	NA	1,120	NA
Chromium	22	6.05	5.5	NA	7	NA	5.8	NA	6.4	NA	7.2	NA	6.5	NA	7.4	NA	7.3	NA
Cobalt	140	0.294	0.27 J	NA	0.38 J	NA	0.29 J	NA	0.29 J	NA	0.31 J	NA	0.29 J	NA	0.32 J	NA	0.24 J	NA
Copper	310	4.83	2.7	NA	2.9	NA	2.4 J	NA	2	NA	2.8	NA	3.4	NA	5.9	NA	2 U	NA
Cyanide	120	--	2.5 U	NA	3.5 U	NA	4 U	NA	2.6 U	NA	2.5 U	NA	3 U	NA	3 U	NA	2.4 U	NA
Iron	2,300	3,245	3,570	NA	4,050	NA	3,300	NA	3,390	NA	4,020	NA	3,480	NA	3,610	NA	2,380	NA
Lead	400	12.3	21.6	NA	31.7	NA	30.8	NA	13.4	NA	28.3 J	NA	35 J	NA	51.3 J	NA	52.5 J	NA
Magnesium	--	238	180 J	NA	238 J	NA	396 J	NA	173 J	NA	289 J	NA	206 J	NA	206 J	NA	176 J	NA
Manganese	180	13.7	14.4	NA	19.3	NA	13.3	NA	8.8	NA	15.3	NA	14.2	NA	14.3	NA	12.8	NA
Mercury	2.3	0.081	0.042 J	NA	0.048 J	NA	0.04 J	NA	0.018 J	NA	0.021 J	NA	0.44 U	NA	0.051 J	NA	0.034 J	NA
Nickel	160	1.21	1.4 J	NA	1.7 J	NA	1.2 J	NA	2.5 J	NA	1.5 J	NA	1.5 J	NA	1.6 J	NA	1.3 J	NA
Potassium	--	116	165 J	NA	184 J	NA	210 J	NA	155 J	NA	189 J	NA	198 J	NA	163 J	NA	115 J	NA
Selenium	39	0.563	0.4 J	NA	0.29 J	NA	0.34 J	NA	0.23 J	NA	2.9 U	NA	3.3 U	NA	3.3 U	NA	2.8 U	NA
Sodium	--	80.9	18.8 J	NA	58.7 J	NA	419 J	NA	24.7 J	NA	28.3 J	NA	23.7 J	NA	24.7 J	NA	24.6 J	NA
Vanadium	7.8	8.9	10.1	NA	10.9	NA	8.6	NA	11.1	NA	9.2	NA	8.5	NA	9.4	NA	7	NA
Zinc	2,300	10.8	24.5	NA	28.7	NA	11.5	NA	8.2	NA	58.4	NA	45.3	NA	40.5	NA	44	NA
Wet Chemistry (MG_KG)																		
No Detections																		

U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	**Region IX PRGs - Residential Soil Adjusted**	**Camp Lejeune Background SS 2X Mean**	MR04-D05		MR04-D06	
Sample ID			MR04-D05-0-1-07D	MR04-D05-07D	MR04-D06-0-1-07D[2]	MR04-D06-07D[2]
Sample Date			10/19/07	10/19/07	10/20/07	10/20/07
Chemical Name						
Volatile Organic Compounds (UG_KG)						
1,1-Dichloroethane	51,000	--	NA	11 U	NA	5.9 U
1,2-Dichloroethane	280	--	NA	11 U	NA	5.9 U
1,2-Dichloropropane	340	--	NA	11 U	NA	5.9 U
2-Butanone	2,200,000	--	NA	11 U	NA	5.9 U
4-Methyl-2-pentanone	530,000	--	NA	11 U	NA	5.9 U
Acetone	1,400,000	--	NA	57 J	NA	220 J
Benzene	640	--	NA	11 U	NA	0.55 J
Bromomethane	390	--	NA	11 U	NA	5.9 U
Chloroform	220	--	NA	11 U	NA	5.9 U
Methyl acetate	2,200,000	--	NA	11 U	NA	630 J
Styrene	1,700,000	--	NA	11 U	NA	5.9 U
Toluene	520,000	--	NA	11 U	NA	5.9 U
Trichloroethene	53	--	NA	11 U	NA	5.9 U
cis-1,3-Dichloropropene	780	--	NA	11 U	NA	5.9 U
Semi-volatile Organic Compounds (UG_KG)						
Acenaphthene	370,000	--	370 U	NA	480 U	NA
Acetophenone	--	--	370 U	NA	480 U	NA
Anthracene	2,200,000	--	370 U	NA	480 U	NA
Benzaldehyde	610,000	--	370 U	NA	480 U	NA
Benzo(a)anthracene	620	--	370 U	NA	480 U	NA
Benzo(a)pyrene	62	--	370 U	NA	480 U	NA
Benzo(b)fluoranthene	620	--	370 U	NA	480 U	NA
Benzo(g,h,i)perylene	230,000	--	370 U	NA	480 U	NA
Benzo(k)fluoranthene	6,200	--	370 U	NA	480 U	NA
Butylbenzylphthalate	1,200,000	--	370 U	NA	480 U	NA
Caprolactam	3,100,000	--	370 U	NA	200 J	NA
Carbazole	24,000	--	370 U	NA	480 U	NA
Chrysene	62,000	--	370 U	NA	480 U	NA
Di-n-butylphthalate	610,000	--	370 U	NA	480 U	NA
Di-n-octylphthalate	240,000	--	370 U	NA	480 U	NA
Fluoranthene	230,000	--	370 U	NA	480 U	NA
Indeno(1,2,3-cd)pyrene	620	--	370 U	NA	480 U	NA
Phenanthrene	230,000	--	370 U	NA	480 U	NA
Pyrene	230,000	--	370 U	NA	480 UJ	NA
bis(2-Ethylhexyl)phthalate	35,000	--	370 U	NA	480 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	2,400	--	3.7 U	NA	4.8 U	NA
4,4'-DDE	1,700	--	6.9	NA	16	NA
4,4'-DDT	1,700	--	7.1	NA	24	NA
Aldrin	29	--	1.9 U	NA	2.5 U	NA
Aroclor-1260	--	--	37 U	NA	48 U	NA
Dieldrin	30	--	2.7 J	NA	6.8	NA
Endosulfan II	37,000	--	3.7 U	NA	4.8 U	NA
Endrin	1,800	--	3.7 U	NA	4.8 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	2.5 U	NA
alpha-BHC	90	--	1.9 U	NA	2.5 U	NA
alpha-Chlordane	1,600	--	1.9 U	NA	2.5 U	NA
gamma-BHC (Lindane)	440	--	1.9 U	NA	2.5 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	2.5 U	NA
Explosives (UG_KG)						
1,3,5-Trinitrobenzene	180,000	--	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	--	--	120 U	NA	120 UJ	NA
Total Metals (MG_KG)						
Aluminum	7,600	5,487	4,190	NA	4,860	NA
Antimony	3.1	0.447	5 UJ	NA	0.34 J	NA
Arsenic	0.39	0.626	0.71 J	NA	1.3	NA
Barium	540	14.5	22.7	NA	32.1	NA
Beryllium	15	0.103	0.058 J	NA	0.09 J	NA
Cadmium	3.7	0.033	0.42 U	NA	0.54 U	NA
Calcium	--	6,360	12,000	NA	1,630	NA
Chromium	22	6.05	4.6	NA	5	NA
Cobalt	140	0.294	0.27 J	NA	0.38 J	NA
Copper	310	4.83	2.5	NA	2.1 J	NA
Cyanide	120	--	2.8 U	NA	3.2 U	NA
Iron	2,300	3,245	2,190	NA	3,240	NA
Lead	400	12.3	22 J	NA	34.2	NA
Magnesium	--	238	336 J	NA	199 J	NA
Manganese	180	13.7	19	NA	17.8	NA
Mercury	2.3	0.081	0.68	NA	0.021 J	NA
Nickel	160	1.21	1.3 J	NA	1.5 J	NA
Potassium	--	116	127 J	NA	126 J	NA
Selenium	39	0.563	2.9 U	NA	0.34 J	NA
Sodium	--	80.9	39.5 J	NA	22.3 J	NA
Vanadium	7.8	8.9	5.9	NA	7.7	NA
Zinc	2,300	10.8	68.2	NA	73.7	NA
Wet Chemistry (MG_KG)						
No Detections						

U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[2] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-D07		MR04-D08		MR04-D09		MR04-D10		MR04-D11		MR04-D12		MR04-D13		MR04-D14		MR04-D15		MR04-D16		MR04-D17	
Sample ID			MR04-D07-0-1-07D	MR04-D07-07D	MR04-D08-0-1-07D	MR04-D08-07D	MR04-D09-0-1-07D	MR04-D09-07D	MR04-D10-0-1-07D	MR04-D10-07D	MR04-D11-0-1-07D	MR04-D11-07D	MR04-D12-0-1-07C	MR04-D12-07C	MR04-D13-0-1-07D	MR04-D13-07D	MR04-D14-0-1-07D	MR04-D14-07D	MR04-D15-0-1-07C[1]	MR04-D15-07C[1]	MR04-D16-0-1-07C	MR04-D16-07C	MR04-D17-0-1-07C	MR04-D17-07C
Sample Date			10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	09/10/07	09/10/07	09/09/07	09/09/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	NA	14 J	NA	6.9 J	NA	10	NA	54 J	NA	3.4 J	NA	10 UJ	NA	7.9 J	NA	36 J	NA	9 U	NA	10 U	NA	11 U
Acetone	1,400,000	--	NA	140 J	NA	270 J	NA	130 J	NA	1,500 J	NA	52 J	NA	10 UJ	NA	190 J	NA	370 J	NA	68 J	NA	19 J	NA	11 UJ
Benzene	640	--	NA	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA	9 U	NA	10 U	NA	11 U
Carbon disulfide	36,000	--	NA	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA	9 U	NA	10 U	NA	11 U
Methyl acetate	2,200,000	--	NA	14 J	NA	74	NA	120	NA	200	NA	20	NA	25	NA	5.8 J	NA	230	NA	46 J	NA	26	NA	8 J
Methylcyclohexane	260,000	--	NA	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA	9 U	NA	10 U	NA	11 U
Styrene	1,700,000	--	NA	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	12 J	NA	9 U	NA	10 U	NA	11 U
Toluene	520,000	--	NA	10 UJ	NA	12 U	NA	1.6 J	NA	10 J	NA	0.43 J	NA	2 J	NA	11 U	NA	3 J	NA	6 J	NA	10 U	NA	11 U
Trichloroethene	53	--	NA	10	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA	9 U	NA	10 U	NA	11 U
Semi-volatile Organic Compounds (UG_KG)																								
2-Methylnaphthalene	5,600	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Acenaphthene	370,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Acetophenone	--	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	17 J	NA	380 U	NA	26 J	NA	31 J	NA	370 U	NA	390 U	NA	410 U	NA
Anthracene	2,200,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	60 J	NA
Benzaldehyde	610,000	--	390 U	NA	460 U	NA	450 U	NA	40 J	NA	27 J	NA	380 U	NA	43 J	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Benzo(a)anthracene	620	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	18 J	NA	48 J	NA	370 U	NA	390 U	NA	740	NA
Benzo(a)pyrene	62	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	94 J	NA	370 U	NA	390 U	NA	900	NA
Benzo(b)fluoranthene	620	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	110 J	NA	370 U	NA	390 U	NA	1,100	NA
Benzo(g,h,i)perylene	230,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	99 J	NA	370 U	NA	390 U	NA	560	NA
Benzo(k)fluoranthene	6,200	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	81 J	NA	370 U	NA	390 U	NA	1,000	NA
Butylbenzylphthalate	1,200,000	--	390 U	NA	460 U	NA	450 U	NA	49 J	NA	24 J	NA	380 U	NA	39 J	NA	68 J	NA	370 U	NA	390 U	NA	20 J	NA
Caprolactam	3,100,000	--	390 U	NA	460 U	NA	450 U	NA	220 J	NA	170 J	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Carbazole	24,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	63 J	NA
Chrysene	62,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	34 J	NA	120 J	NA	370 U	NA	390 U	NA	1,100	NA
Di-n-butylphthalate	610,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Dibenz(a,h)anthracene	62	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	130 J	NA
Dibenzofuran	15,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Fluoranthene	230,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	59 J	NA	160 J	NA	370 U	NA	390 U	NA	2,100	NA
Fluorene	270,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Indeno(1,2,3-cd)pyrene	620	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	76 J	NA	370 U	NA	390 U	NA	470	NA
Phenanthrene	230,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	41 J	NA	370 U	NA	390 U	NA	460	NA
Phenol	1,800,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Pyrene	230,000	--	390 UJ	NA	460 UJ	NA	450 UJ	NA	470 U	NA	360 U	NA	380 U	NA	55 J	NA	170 J	NA	370 U	NA	390 U	NA	1,500 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	37 J	NA	360 U	NA	510	NA	50 J	NA	39 J	NA	93 J	NA
n-Nitrosodiphenylamine	99,000	--	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U	NA	370 U	NA	390 U	NA	410 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	17	NA	3.8 U	NA	3.6 U	NA	4 U	NA	3.7 U	NA	3.7 J	NA	3.2 J	NA
4,4'-DDE	1,700	--	25	NA	21	NA	3.4 J	NA	9.4	NA	36	NA	20	NA	13	NA	83	NA	48	NA	6.6	NA	8 J	NA
4,4'-DDT	1,700	--	35	NA	16 J	NA	3.6 J	NA	14	NA	670	NA	11	NA	6	NA	15	NA	8.4	NA	94	NA	11 J	NA
Aldrin	29	--	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA
Aroclor-1260	--	--	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U	NA	37 U	NA	39 U	NA	41 U	NA
Dieldrin	30	--	3.1 J	NA	5.5 J	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	10	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA
Endrin	1,800	--	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA
Endrin aldehyde	1,800	--	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA
Heptachlor epoxide	53	--	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA
alpha-Chlordane	1,600	--	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA
beta-BHC	320	--	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA
gamma-Chlordane	1,600	--	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	3,490	NA	3,460	NA	4,190	NA	8,660	NA	5,250	NA	6,330	NA	2,810	NA	4,960	NA	6,440	NA	5,750	NA	5,380	NA
Antimony	3.1	0.447	5.3 U	NA	0.9 J	NA	6.1 U	NA	6.5 UJ	NA	4.9 UJ	NA	5.1 UJ	NA	5 UJ	NA	5.6 UJ	NA	0.29 J	NA	0.29 J	NA	5.9 UJ	NA
Arsenic	0.39	0.626	1.4	NA	1	NA	1.1	NA	2.3	NA	1.4	NA	2.7	NA	1	NA	2.4	NA	3.4 J	NA	2.2 J	NA	8.5 J	NA
Barium	540	14.5	17.2 J	NA	16.3 J	NA	23.5	NA	37	NA	17.5	NA	36.5	NA	8.3 J	NA	15.3 J	NA	15 J	NA	14.1 J	NA	13.7 J	NA
Beryllium	15	0.103	0.06 J	NA	0.063 J	NA	0.094 J	NA	0.54 U	NA	0.41 U	NA	0.035 J	NA	0.41 U	NA	0.46 U	NA	0.091 J	NA	0.071 J	NA	0.069 J	NA
Cadmium	3.7	0.033	0.44 U	NA	0.52 U	NA	0.51 U	NA	0.61	NA	0.15 J	NA	0.081 J	NA	0.058 J	NA	0.13 J	NA	0.099 J	NA	0.052 J	NA	0.098 J	NA
Calcium	--	6,360	3,010	NA	1,310	NA	11,300	NA	20,800	NA	2,940	NA	3,590	NA	532	NA	2,580	NA	3,200	NA	4,350	NA	23,900	NA
Chromium	22	6.05	4.4	NA	4.3	NA	3.9	NA	10	NA	4.7	NA	7.6 J	NA	3.2	NA	7	NA	9.7	NA	6.8	NA	11.2	NA
Cobalt	140	0.294	0.21 J	NA	0.24 J	NA	0.19 J	NA	0.57 J	NA	0.29 J	NA	0.35 J	NA	0.17 J	NA	0.35 J	NA	0.51 J	NA	0.29 J	NA	0.32 J	NA
Copper	310	4.83	2.7	NA	2.5 J	NA	1.9 J	NA	4.2	NA	3	NA	1.6 J	NA	1.7 J	NA	2.9	NA	2.5 J	NA	1.8 J	NA	7.1 J	NA
Cyanide	120	--	2.8 U	NA	3.4 U	NA	3.3 U	NA	3.4 U	NA	2.2 U	NA	2.7 UJ	NA	2.4 U	NA	2.5 U	NA	2.5 U	NA	2.9 U	NA	2.8 U	NA
Iron	2,300	3,245	2,100	NA	1,900	NA	1,980	NA	5,410 J	NA	2,630 J	NA	6,250	NA	2,130	NA	3,990	NA	7,140 J	NA	4,370 J	NA	6,250 J	NA
Lead	400	12.3	74.9	NA	23.8	NA	16.5	NA	36.5	NA	26	NA	20.8 J	NA	16.8	NA	24.2	NA	14.6	NA	12	NA	11.9	NA
Magnesium	--	238	228 J	NA	145 J	NA	300 J	NA	575	NA	228 J	NA	241 J	NA	97.8 J	NA	211 J	NA	237 J	NA	248 J	NA	470 J	NA
Manganese	180	13.7	19	NA	12.5	NA	22.9	NA	23.3	NA	19.4	NA	9	NA	10.2	NA	19.3	NA	13.8	NA	8.6	NA	15.4	NA
Mercury	2.3	0.081	0.054 J	NA	0.019 J	NA	0.11 U	NA	0.12 U	NA	0.029 J	NA	0.03 J	NA	0.014 J	NA	0.062 J	NA	0.027 J	NA	0.024 J	NA	0.014 J	NA
Nickel	160	1.21	1.9 J	NA	1.3 J	NA	1.3 J	NA	2.6 J	NA	1.6 J	NA	3.4 U	NA	0.94 J	NA	1.6 J	NA	1.9 J	NA	1.5 J	NA	2 J	NA
Potassium	--	116	114 J	NA	104 J	NA	117 J	NA	263 J	NA	151 J	NA	220 J	NA	111 J	NA	191 J	NA	205 J	NA	164 J	NA	151 J	NA
Selenium	39	0.563	0.32 J	NA	0.34 J	NA	0.35 J	NA	3.8 U	NA	2.9 U	NA	3 U	NA	0.22 J	NA	3.2 U	NA	0.27 J	NA	2.9 U	NA	0.59 J	NA
Sodium	--	80.9	21.3 J	NA	17.9 J	NA	36.3 J	NA	69.7 J	NA	21.5 J	NA	428 U	NA	10.9 J	NA	21.6 J	NA	32.6 J	NA	22.8 J	NA	68.1 J	NA
Vanadium	7.8	8.5	6.8	NA	5 J	NA	5.2	NA	13	NA	6.8	NA	11.8	NA	6.3	NA	11.3	NA	13.6 J	NA	10.1 J	NA	16 J	NA
Zinc	2,300	10.8	41.9	NA	39.2	NA	51.9	NA	49.1 J	NA	31.3 J	NA	11.2	NA	10.1	NA	39.5	NA	16.8	NA	17.5	NA	33.8	NA
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-D18		MR04-D19		MR04-E01		MR04-E02		MR04-E03		MR04-E04		MR04-E05		MR04-E06		MR04-E07		MR04-E08		MR04-E09	
Sample ID			MR04-D18-0-1-07C	MR04-D18-07C	MR04-D19-0-1-07C	MR04-D19-07C	MR04-E01-0-1-07C	MR04-E01-07C	MR04-E02-0-1-07C	MR04-E02-07C	MR04-E03-0-1-07D	MR04-E03-07D	MR04-E04-0-1-07D	MR04-E04-07D	MR04-E05-0-1-07D	MR04-E05-07D	MR04-E06-0-1-07D	MR04-E06-07D	MR04-E07-0-1-07D	MR04-E07-07D	MR04-E08-0-1-07D	MR04-E08-07D	MR04-E09-0-1-07D	MR04-E09-07D
Sample Date			09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	NA	12 U	NA	11 U	NA	7 J	NA	7 J	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	6.4 J
Acetone	1,400,000	--	NA	16 J	NA	16 J	NA	82 J	NA	120 J	NA	10 U	NA	30	NA	17 U	NA	55 J	NA	15 UJ	NA	51 J	NA	45 J
Benzene	640	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Carbon disulfide	36,000	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Methyl acetate	2,200,000	--	NA	36	NA	10 J	NA	140 J	NA	90 J	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Methylcyclohexane	260,000	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Styrene	1,700,000	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Toluene	520,000	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Trichloroethene	53	--	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U
Semi-volatile Organic Compounds (UG_KG)																								
2-Methylnaphthalene	5,600	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	21 J	NA	380 U	NA	450 U	NA	360 U	NA
Acenaphthene	370,000	--	390 U	NA	40 J	NA	410 U	NA	390 U	NA	18 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Acetophenone	--	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	30 J	NA	360 U	NA
Anthracene	2,200,000	--	390 U	NA	54 J	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Benzaldehyde	610,000	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 UJ	NA	430 UJ	NA	480 UJ	NA	360 UJ	NA	380 UJ	NA	450 U	NA	360 U	NA
Benzo(a)anthracene	620	--	56 J	NA	170 J	NA	410 U	NA	390 U	NA	63 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Benzo(a)pyrene	62	--	78 J	NA	150 J	NA	410 U	NA	390 U	NA	52 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Benzo(b)fluoranthene	620	--	110 J	NA	230 J	NA	410 U	NA	390 U	NA	58 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	19 J	NA
Benzo(g,h,i)perylene	230,000	--	49 J	NA	71 J	NA	410 U	NA	390 U	NA	36 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Benzo(k)fluoranthene	6,200	--	83 J	NA	150 J	NA	410 U	NA	390 U	NA	49 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Butylbenzylphthalate	1,200,000	--	390 U	NA	400 U	NA	23 J	NA	390 U	NA	370 U	NA	65 J	NA	480 U	NA	17 J	NA	380 U	NA	450 U	NA	360 U	NA
Caprolactam	3,100,000	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	60 J	NA	73 J	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Carbazole	24,000	--	390 U	NA	34 J	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Chrysene	62,000	--	89 J	NA	200 J	NA	410 U	NA	390 U	NA	68 J	NA	430 U	NA	480 U	NA	360 U	NA	21 J	NA	450 U	NA	18 J	NA
Di-n-butylphthalate	610,000	--	390 U	NA	400 U	NA	27 J	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	28 J	NA	360 U	NA
Dibenz(a,h)anthracene	62	--	390 U	NA	20 J	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Dibenzofuran	15,000	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Fluoranthene	230,000	--	150 J	NA	460	NA	410 U	NA	390 U	NA	140 J	NA	430 U	NA	25 J	NA	360 U	NA	35 J	NA	450 U	NA	37 J	NA
Fluorene	270,000	--	390 U	NA	27 J	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	620	--	43 J	NA	63 J	NA	410 U	NA	390 U	NA	30 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Phenanthrene	230,000	--	32 J	NA	230 J	NA	410 U	NA	390 U	NA	83 J	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	21 J	NA
Phenol	1,800,000	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Pyrene	230,000	--	110 J	NA	320 J	NA	410 U	NA	390 U	NA	120 J	NA	430 U	NA	480 U	NA	360 U	NA	24 J	NA	450 U	NA	24 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	150 J	NA	58 J	NA	210 J	NA	83 J	NA	80 J	NA	850	NA	130 J	NA	84 J	NA	3,600	NA	450 U	NA	360 U	NA
n-Nitrosodiphenylamine	99,000	--	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	4	NA	4 U	NA	3.5 J	NA	3.9 U	NA	3.7 U	NA	2.7 J	NA	2.4 J	NA	9.1	NA	2.5 J	NA	2.5 J	NA	4.2	NA
4,4'-DDE	1,700	--	39	NA	9.6 J	NA	93	NA	110	NA	35	NA	39	NA	73	NA	40	NA	37 J	NA	94	NA	25	NA
4,4'-DDT	1,700	--	63	NA	11	NA	25	NA	50	NA	17	NA	21	NA	18	NA	84	NA	17 J	NA	63	NA	24	NA
Aldrin	29	--	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
Aroclor-1260	--	--	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U	NA	34 J	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA
Dieldrin	30	--	3.9 U	NA	4 U	NA	96	NA	4.3	NA	3.9	NA	14	NA	4.8 U	NA	17	NA	20 J	NA	8.2	NA	9.9	NA
Endrin	1,800	--	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	52	NA
Endrin aldehyde	1,800	--	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	3.6 U	NA
Heptachlor epoxide	53	--	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
alpha-Chlordane	1,600	--	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	5.9 J	NA
beta-BHC	320	--	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA
gamma-Chlordane	1,600	--	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	3.3	NA
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	3,370	NA	6,640	NA	8,650	NA	3,460	NA	3,270	NA	4,840	NA	4,940	NA	3,620	NA	4,400	NA	3,610	NA	3,280	NA
Antimony	3.1	0.447	0.4 J	NA	5.6 UJ	NA	5.6 UJ	NA	5.4 UJ	NA	5.2 UJ	NA	5.8 UJ	NA	6.4 UJ	NA	4.8 UJ	NA	5.2 UJ	NA	6 UJ	NA	5 UJ	NA
Arsenic	0.39	0.626	3.2 J	NA	2.9 J	NA	4.3 J	NA	2.3	NA	1.1	NA	1.5	NA	1.5	NA	1	NA	1.4	NA	1.4	NA	0.83	NA
Barium	540	14.5	10.2 J	NA	9.9 J	NA	19.7	NA	12.3 J	NA	17.8	NA	21.8	NA	42.3	NA	19.6	NA	24.1	NA	34.1	NA	31.3	NA
Beryllium	15	0.103	0.041 J	NA	0.071 J	NA	0.097 J	NA	0.036 J	NA	0.036 J	NA	0.054 J	NA	0.088 J	NA	0.062 J	NA	0.068 J	NA	0.075 J	NA	0.045 J	NA
Cadmium	3.7	0.033	0.078 J	NA	0.11 J	NA	0.32 J	NA	0.29 J	NA	0.27 J	NA	0.37 J	NA	0.24 J	NA	0.18 J	NA	0.38 J	NA	0.5 U	NA	0.42 U	NA
Calcium	--	6,360	1,570	NA	43,400	NA	7,800 J	NA	102,000	NA	1,210	NA	11,700	NA	8,350	NA	1,140	NA	8,170	NA	42,700	NA	2,420	NA
Chromium	22	6.05	5.8	NA	11.8	NA	12.6	NA	9.1 J	NA	4.7	NA	8.3	NA	7.5	NA	4.1	NA	5.9	NA	6.3	NA	4.6	NA
Cobalt	140	0.294	0.27 J	NA	0.37 J	NA	0.45 J	NA	0.26 J	NA	0.3 J	NA	0.39 J	NA	0.37 J	NA	0.23 J	NA	0.4 J	NA	0.32 J	NA	0.25 J	NA
Copper	310	4.83	5.5 J	NA	2.7 J	NA	3.8	NA	2.3	NA	4.2	NA	4	NA	9.1	NA	2.5	NA	4.5	NA	3.6	NA	4.8	NA
Cyanide	120	--	2.9 U	NA	3 U	NA	3 U	NA	2.9 UJ	NA	2.7 U	NA	2.7 U	NA	2.9 U	NA	2.6 U	NA	2.8 U	NA	3.2 U	NA	2.4 U	NA
Iron	2,300	3,245	3,090 J	NA	4,800 J	NA	7,030 J	NA	3,710	NA	2,890	NA	4,160	NA	3,560	NA	2,480	NA	3,080	NA	3,030	NA	2,230	NA
Lead	400	12.3	9.8	NA	41.6	NA	33.1	NA	16.9 J	NA	29.2 J	NA	43.1 J	NA	40.1 J	NA	45.2 J	NA	35.1 J	NA	48.4 J	NA	52.8 J	NA
Magnesium	--	238	150 J	NA	957	NA	404 J	NA	1,440	NA	145 J	NA	377 J	NA	318 J	NA	143 J	NA	284 J	NA	769	NA	155 J	NA
Manganese	180	13.7	12.4	NA	15.9	NA	11.9	NA	28.8	NA	14.8	NA	19.2	NA	22.8	NA	16.4	NA	19.8	NA	25.1	NA	16.1	NA
Mercury	2.3	0.081	0.017 J	NA	0.026 J	NA	0.046 J	NA	0.011 J	NA	0.056 J	NA	0.027 J	NA	0.061 J	NA	0.022 J	NA	0.031 J	NA	0.47 U	NA	0.036 J	NA
Nickel	160	1.21	1.4 J	NA	2.1 J	NA	2.3 J	NA	3.6 U	NA	1.4 J	NA	1.7 J	NA	2 J	NA	1.4 J	NA	2 J	NA	1.7 J	NA	1.2 J	NA
Potassium	--	116	123 J	NA	270 J	NA	404 J	NA	239 J	NA	122 J	NA	244 J	NA	235 J	NA	145 J	NA	166 J	NA	174 J	NA	133 J	NA
Selenium	39	0.563	3.3 U	NA	0.67 J	NA	0.5 J	NA	1.9 J	NA	3 U	NA	3.4 U	NA	3.7 U	NA	2.8 U	NA	3.1 U	NA	0.29 J	NA	2.9 U	NA
Sodium	--	80.9	28.4 J	NA	98.8 J	NA	35.7 J	NA	452 U	NA	12.9 J	NA	61.2 J	NA	33.9 J	NA	14.3 J	NA	29.3 J	NA	60.2 J	NA	19.5 J	NA
Vanadium	7.8	8.5	7.6 J	NA	14.7 J	NA	17.6	NA	8.5	NA	6.2	NA	9.3	NA	9.9	NA	6.1	NA	7.5	NA	7.6	NA	5.6	NA
Zinc	2,300	10.8	24.9	NA	12.8	NA	63.1	NA	21	NA	61.3	NA	40.8	NA	56.1	NA	34	NA	80.2	NA	74	NA	78.1	NA
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-E10		MR04-E11		MR04-E12		MR04-E13		MR04-E14		MR04-E15		MR04-E16		MR04-E17		MR04-E18		MR04-E19		MR04-E20	
Sample ID			MR04-E10-0-1-07D	MR04-E10-07D	MR04-E11-0-1-07D	MR04-E11-07D	MR04-E12-0-1-07D	MR04-E12-07D	MR04-E13-0-1-07D	MR04-E13-07D	MR04-E14-0-1-07C	MR04-E14-07C	MR04-E15-0-1-07C	MR04-E15-07C	MR04-E16-0-1-07C	MR04-E16-07C	MR04-E17-0-1-07C	MR04-E17-07C	MR04-E18-0-1-07C	MR04-E18-07C	MR04-E19-0-1-07C	MR04-E19-07C	MR04-E20-0-1-07C	MR04-E20-07C
Sample Date			10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	NA	9.8 J	NA	14 J	NA	11 R	NA	14 J	NA	8 J	NA	11 U	NA	14 J	NA	12 U	NA	10 U	NA	10 U	NA	13 J
Acetone	1,400,000	--	NA	590 J	NA	180 J	NA	11 R	NA	170 J	NA	120 J	NA	89 J	NA	96 J	NA	110 J	NA	24	NA	27 J	NA	36
Benzene	640	--	NA	15 U	NA	12 U	NA	11 R	NA	17 U	NA	15 UJ	NA	11 U	NA	4 J	NA	12 U	NA	10 U	NA	10 U	NA	5 J
Carbon disulfide	36,000	--	NA	15 U	NA	12 U	NA	11 R	NA	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	5 J
Methyl acetate	2,200,000	--	NA	200	NA	160	NA	11 R	NA	17 UJ	NA	37 J	NA	360 J	NA	26 J	NA	55 J	NA	10 U	NA	16 J	NA	19
Methylcyclohexane	260,000	--	NA	15 U	NA	12 U	NA	11 R	NA	17 UJ	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	4 J
Styrene	1,700,000	--	NA	15 U	NA	12 U	NA	11 R	NA	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U
Toluene	520,000	--	NA	15 U	NA	6.4 J	NA	11 R	NA	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	3 J
Trichloroethene	53	--	NA	15 U	NA	12 U	NA	11 R	NA	17	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U
Semi-volatile Organic Compounds (UG_KG)																								
2-Methylnaphthalene	5,600	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Acenaphthene	370,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	51 J	NA	400 U	NA	420 U	NA	430 U	NA
Acetophenone	--	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Anthracene	2,200,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	240 J	NA	400 U	NA	420 U	NA	430 U	NA
Benzaldehyde	610,000	--	410 U	NA	360 U	NA	19 J	NA	21 J	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Benzo(a)anthracene	620	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	2,800	NA	90 J	NA	80 J	NA	92 J	NA
Benzo(a)pyrene	62	--	410 U	NA	18 J	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	3,600	NA	110 J	NA	99 J	NA	110 J	NA
Benzo(b)fluoranthene	620	--	410 U	NA	36 J	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	5,200	NA	180 J	NA	160 J	NA	160 J	NA
Benzo(g,h,i)perylene	230,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	1,900	NA	82 J	NA	69 J	NA	72 J	NA
Benzo(k)fluoranthene	6,200	--	410 U	NA	31 J	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	3,100	NA	110 J	NA	90 J	NA	100 J	NA
Butylbenzylphthalate	1,200,000	--	410 U	NA	360 U	NA	30 J	NA	34 J	NA	470 U	NA	360 U	NA	420 U	NA	22 J	NA	400 U	NA	420 U	NA	430 U	NA
Caprolactam	3,100,000	--	110 J	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Carbazole	24,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	230 J	NA	400 U	NA	420 U	NA	430 U	NA
Chrysene	62,000	--	410 U	NA	27 J	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	4,300	NA	150 J	NA	130 J	NA	140 J	NA
Di-n-butylphthalate	610,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Dibenz(a,h)anthracene	62	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	550	NA	19 J	NA	420 U	NA	430 U	NA
Dibenzofuran	15,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	27 J	NA	400 U	NA	420 U	NA	430 U	NA
Fluoranthene	230,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	17 J	NA	420 U	NA	8,100	NA	270 J	NA	220 J	NA	260 J	NA
Fluorene	270,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	70 J	NA	400 U	NA	420 U	NA	430 U	NA
Indeno(1,2,3-cd)pyrene	620	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	1,800	NA	72 J	NA	61 J	NA	64 J	NA
Phenanthrene	230,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	2,000	NA	76 J	NA	57 J	NA	84 J	NA
Phenol	1,800,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Pyrene	230,000	--	410 UJ	NA	20 J	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	5,300	NA	190 J	NA	160 J	NA	190 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	36 J	NA	33 J	NA	64 J	NA	150 J	NA	37 J	NA	74 J	NA	42 J	NA
n-Nitrosodiphenylamine	99,000	--	410 U	NA	360 U	NA	370 U	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	4.1 U	NA	5.1	NA	3.7 U	NA	3.6 U	NA	4.7 U	NA	5.2	NA	4.2 U	NA	20	NA	2.9 J	NA	4.2 U	NA	6	NA
4,4'-DDE	1,700	--	8.6	NA	57	NA	4.4	NA	2.8 J	NA	4.7 U	NA	96	NA	4.5	NA	120	NA	10 J	NA	4.2 U	NA	21 J	NA
4,4'-DDT	1,700	--	6.6	NA	52	NA	2.7 J	NA	3.6 U	NA	4.7 U	NA	110	NA	3 J	NA	180	NA	89	NA	2.9 J	NA	24	NA
Aldrin	29	--	2.1 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA
Aroclor-1260	--	--	41 U	NA	29 J	NA	37 U	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA
Dieldrin	30	--	4 J	NA	5.2	NA	3.7 U	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA
Endrin	1,800	--	4.1 U	NA	2.3 J	NA	3.7 U	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA
Endrin aldehyde	1,800	--	4.2 U	NA	4.3 U	NA	3.7 U	NA	3.6 U	NA	4.7 U	NA	2.1 J	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA
Heptachlor epoxide	53	--	2.1 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA
alpha-Chlordane	1,600	--	2.1 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA
beta-BHC	320	--	2.1 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	1.5 J	NA
gamma-Chlordane	1,600	--	2.1 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.4 U	NA	1.5 J	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	4,980	NA	4,590	NA	4,970	NA	4,770	NA	4,040 J	NA	3,760 J	NA	3,880	NA	4,220	NA	4,790	NA	4,820	NA	5,330	NA
Antimony	3.1	0.447	5.6 U	NA	0.78 J	NA	5.1 UJ	NA	4.9 UJ	NA	6.3 UJ	NA	4.9 UJ	NA	5.9 UJ	NA	0.82 J	NA	5.7 UJ	NA	5.2 UJ	NA	5.6 UJ	NA
Arsenic	0.39	0.626	1.6	NA	1.4	NA	2.1	NA	1.6	NA	2	NA	1.1	NA	1.6 J	NA	2 J	NA	3.3 J	NA	4.6 J	NA	2.9 J	NA
Barium	540	14.5	24	NA	47.4	NA	11.4 J	NA	13.4 J	NA	14.7 J	NA	28.1	NA	350	NA	13.1 J	NA	11.2 J	NA	10.9 J	NA	13.5 J	NA
Beryllium	15	0.103	0.067 J	NA	0.067 J	NA	0.42 U	NA	0.41 U	NA	0.051 J	NA	0.057 J	NA	0.49 U	NA	0.065 J	NA	0.094 J	NA	0.066 J	NA	0.081 J	NA
Cadmium	3.7	0.033	0.47 U	NA	0.4 U	NA	0.24 J	NA	0.087 J	NA	0.53 U	NA	0.047 J	NA	0.11 J	NA	0.083 J	NA	0.25 J	NA	0.13 J	NA	0.15 J	NA
Calcium	--	6,360	1,730	NA	6,470	NA	39,800	NA	13,700	NA	2,120 J	NA	7,410 J	NA	23,500	NA	4,840	NA	31,200	NA	40,100	NA	5,350	NA
Chromium	22	6.05	6.1	NA	6.1	NA	8.2	NA	5.9	NA	4.6 J	NA	4 J	NA	5.1	NA	5.6	NA	11.2	NA	9.3	NA	8.8	NA
Cobalt	140	0.294	0.22 J	NA	0.32 J	NA	0.29 J	NA	0.3 J	NA	0.21 J	NA	0.17 J	NA	1.4 J	NA	0.38 J	NA	1.1 J	NA	0.49 J	NA	0.99 J	NA
Copper	310	4.83	1.9 J	NA	4.3	NA	2.1	NA	1.4 J	NA	1.5 J	NA	3.7	NA	2.6 J	NA	2.7 J	NA	2.1 J	NA	2.4 J	NA	1.8 J	NA
Cyanide	120	--	2.8 U	NA	0.11 J	NA	2.7 U	NA	2.5 U	NA	2.9 U	NA	2.7 U	NA	3 U	NA	3.2 U	NA	2.8 U	NA	3 U	NA	3.2 U	NA
Iron	2,300	3,245	2,910	NA	3,040	NA	3,410 J	NA	2,850 J	NA	2,780 J	NA	1,970 J	NA	2,500 J	NA	2,920 J	NA	3,590 J	NA	3,360 J	NA	3,620 J	NA
Lead	400	12.3	29.4	NA	31.8	NA	18.2	NA	12.4	NA	9.5	NA	32.4	NA	30.9	NA	17.9	NA	4.7	NA	5.3	NA	7	NA
Magnesium	--	238	228 J	NA	264 J	NA	751	NA	356 J	NA	158 J	NA	253 J	NA	400 J	NA	222 J	NA	654	NA	726	NA	253 J	NA
Manganese	180	13.7	10.5	NA	16.3	NA	15.4	NA	15.4	NA	12.6	NA	8.9	NA	15.4	NA	17.7	NA	11	NA	11.7	NA	13	NA
Mercury	2.3	0.081	0.11 U	NA	0.1 U	NA	0.022 J	NA	0.017 J	NA	0.02 J	NA	0.011 J	NA	0.037 J	NA	0.042 J	NA	0.018 J	NA	0.016 J	NA	0.024 J	NA
Nickel	160	1.21	1.2 J	NA	1.3 J	NA	1.4 J	NA	1.4 J	NA	1.3 J	NA	1.3 J	NA	3.2 J	NA	1.6 J	NA	2.5 J	NA	2 J	NA	2.4 J	NA
Potassium	--	116	184 J	NA	156 J	NA	212 J	NA	196 J	NA	138 J	NA	104 J	NA	102 J	NA	125 J	NA	185 J	NA	173 J	NA	165 J	NA
Selenium	39	0.563	0.25 J	NA	0.31 J	NA	3 U	NA	2.8 U	NA	3.7 U	NA	0.43 J	NA	0.36 J	NA	3.3 U	NA	0.89 J	NA	0.8 J	NA	3.3 U	NA
Sodium	--	80.9	24.6 J	NA	29.8 J	NA	82 J	NA	40.1 J	NA	17.4 J	NA	34.3 J	NA	95.7 J	NA	39.6 J	NA	95.5 J	NA	118 J	NA	52.3 J	NA
Vanadium	7.8	8.9	9	NA	7.8	NA	9.1	NA	8.3	NA	6.7	NA	5.8	NA	7.4 J	NA	7.9 J	NA	10.9 J	NA	9.1 J	NA	9.4 J	NA
Zinc	2,300	10.8	21.3	NA	59.8	NA	47.7 J	NA	9.7 J	NA	8.6	NA	12.8	NA	16.6	NA	18.1	NA	21.5	NA	13.5	NA	19.7	NA
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-E21		MR04-E22		MR04-E23		MR04-E24		MR04-F01		MR04-F02		MR04-F03		MR04-F04		MR04-F05		MR04-F06		MR04-F07	
Sample ID			MR04-E21-0-1-07C	MR04-E21-07C	MR04-E22-0-1-07C[1]	MR04-E22-07C[1]	MR04-E23-0-1-07C	MR04-E23-07C	MR04-E24-0-1-07D	MR04-E24-07D	MR04-F01-0-1-07C	MR04-F01-07C	MR04-F02-0-1-07C	MR04-F02-07C	MR04-F03-0-1-07C	MR04-F03-07C	MR04-F04-0-1-07D	MR04-F04-07D	MR04-F05-0-1-07D	MR04-F05-07D	MR04-F06-0-1-07D	MR04-F06-07D	MR04-F07-0-1-07D	MR04-F07-07D
Sample Date			09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	10/21/07	10/21/07	09/05/07	09/05/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	NA	9 UJ	NA	11 U	NA	11 U	NA	6.6 J	NA	9 J	NA	15 U	NA	13 UJ	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Acetone	1,400,000	--	NA	30 J	NA	14 J	NA	35 J	NA	230 J	NA	97 J	NA	120 J	NA	58 J	NA	22 J	NA	15 U	NA	11 UJ	NA	24 J
Benzene	640	--	NA	9 UJ	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Carbon disulfide	36,000	--	NA	9 UJ	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Methyl acetate	2,200,000	--	NA	9 UJ	NA	11 U	NA	45 J	NA	10 U	NA	44 J	NA	270 J	NA	30 J	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Methylcyclohexane	260,000	--	NA	9 UJ	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Styrene	1,700,000	--	NA	9 UJ	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	5.5 J	NA	15 U	NA	11 U	NA	14 U
Toluene	520,000	--	NA	9 UJ	NA	11 U	NA	11 UJ	NA	10 U	NA	2 J	NA	3 J	NA	2 J	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Trichloroethene	53	--	NA	9 UJ	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA	11 U	NA	14 U
Semi-volatile Organic Compounds (UG_KG)																								
2-Methylnaphthalene	5,600	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Acenaphthene	370,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	37 J	NA	450 U	NA	380 U	NA	400 U	NA
Acetophenone	--	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Anthracene	2,200,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	39 J	NA	450 U	NA	380 U	NA	400 U	NA
Benzaldehyde	610,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 UJ	NA	450 UJ	NA	380 UJ	NA	400 UJ	NA
Benzo(a)anthracene	620	--	350 U	NA	62 J	NA	120 J	NA	350 U	NA	430 U	NA	380 U	NA	39 J	NA	160 J	NA	450 U	NA	380 U	NA	400 U	NA
Benzo(a)pyrene	62	--	350 U	NA	81 J	NA	130 J	NA	350 U	NA	430 U	NA	380 U	NA	36 J	NA	130 J	NA	450 U	NA	380 U	NA	400 U	NA
Benzo(b)fluoranthene	620	--	350 U	NA	120 J	NA	250 J	NA	350 U	NA	430 U	NA	30 J	NA	39 J	NA	170 J	NA	450 U	NA	380 U	NA	400 U	NA
Benzo(g,h,i)perylene	230,000	--	350 U	NA	60 J	NA	100 J	NA	350 U	NA	430 U	NA	380 U	NA	27 J	NA	93 J	NA	450 U	NA	380 U	NA	400 U	NA
Benzo(k)fluoranthene	6,200	--	350 U	NA	88 J	NA	140 J	NA	350 U	NA	430 U	NA	34 J	NA	48 J	NA	120 J	NA	450 U	NA	380 U	NA	400 U	NA
Butylbenzylphthalate	1,200,000	--	350 U	NA	20 J	NA	380 U	NA	24 J	NA	430 U	NA	380 U	NA	28 J	NA	530 U	NA	450 U	NA	19 J	NA	400 U	NA
Caprolactam	3,100,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	81 J	NA	450 U	NA	380 U	NA	170 J	NA
Carbazole	24,000	--	350 U	NA	390 U	NA	17 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	26 J	NA	450 U	NA	380 U	NA	400 U	NA
Chrysene	62,000	--	350 U	NA	110 J	NA	180 J	NA	350 U	NA	29 J	NA	63 J	NA	48 J	NA	180 J	NA	450 U	NA	380 U	NA	400 U	NA
Di-n-butylphthalate	610,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	110 J	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Dibenz(a,h)anthracene	62	--	350 U	NA	390 U	NA	22 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	27 J	NA	450 U	NA	380 U	NA	400 U	NA
Dibenzofuran	15,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Fluoranthene	230,000	--	350 U	NA	200 J	NA	410	NA	350 U	NA	430 U	NA	150 J	NA	92 J	NA	340 J	NA	450 U	NA	380 U	NA	400 U	NA
Fluorene	270,000	--	350 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Indeno(1,2,3-cd)pyrene	620	--	350 U	NA	51 J	NA	84 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	97 J	NA	450 U	NA	380 U	NA	400 U	NA
Phenanthrene	230,000	--	350 U	NA	46 J	NA	100 J	NA	350 U	NA	430 U	NA	380 U	NA	46 J	NA	180 J	NA	450 U	NA	380 U	NA	400 U	NA
Phenol	1,800,000	--	350 U	NA	18 J	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Pyrene	230,000	--	350 U	NA	70 J	NA	250 J	NA	350 U	NA	430 U	NA	100 J	NA	68 J	NA	280 J	NA	450 U	NA	380 U	NA	400 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	39 J	NA	40 J	NA	62 J	NA	350 U	NA	150 J	NA	470	NA	350 J	NA	130 J	NA	240 J	NA	180 J	NA	110 J	NA
n-Nitrosodiphenylamine	99,000	--	350 U	NA	390 U	NA	70 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U	NA	380 U	NA	400 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	2.4 J	NA	4 J	NA	3.7 U	NA	2.8 J	NA	4 J	NA	3.8 U	NA	4.1 U	NA	4.2 J	NA	4.5 U	NA	2.2 J	NA	4 U	NA
4,4'-DDE	1,700	--	24	NA	22	NA	10 J	NA	35	NA	23	NA	13	NA	9.2	NA	31 J	NA	37	NA	33	NA	24	NA
4,4'-DDT	1,700	--	21	NA	51	NA	14	NA	76	NA	12	NA	9.8	NA	9.4	NA	20	NA	35	NA	19	NA	10	NA
Aldrin	29	--	1.8 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	3	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA
Aroclor-1260	--	--	35 U	NA	39 U	NA	37 U	NA	35 U	NA	83 J	NA	38 U	NA	41 U	NA	53 U	NA	45 U	NA	38 U	NA	24 J	NA
Dieldrin	30	--	3.5 U	NA	3.9 U	NA	3.7 U	NA	15	NA	36	NA	3.6 J	NA	4.1 U	NA	5.3 U	NA	7.5	NA	6.6	NA	18	NA
Endrin	1,800	--	3.5 U	NA	3.9 U	NA	3.7 U	NA	3.5 U	NA	4.3 U	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U	NA	3.8 U	NA	4 U	NA
Endrin aldehyde	1,800	--	3.5 U	NA	3.9 U	NA	3.7 U	NA	4.1 U	NA	3.6 J	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U	NA	3.8 U	NA	4 U	NA
Heptachlor epoxide	53	--	1.8 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA
alpha-Chlordane	1,600	--	1.8 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	8.7 J	NA	2 U	NA	2.1 U	NA	2.7 U	NA	20 J	NA	2 U	NA	2.1 U	NA
beta-BHC	320	--	1.8 U	NA	2 U	NA	1.8 J	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA
gamma-Chlordane	1,600	--	1.8 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	9.7	NA	2 U	NA	2.1 U	NA	2.7 U	NA	12	NA	2 U	NA	2.1 U	NA
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	4,230	NA	5,160	NA	4,090	NA	2,760	NA	4,380	NA	3,360	NA	2,860	NA	4,580	NA	5,330	NA	5,880	NA	4,290	NA
Antimony	3.1	0.447	0.28 J	NA	0.3 J	NA	0.32 J	NA	4.8 UJ	NA	5.8 UJ	NA	0.28 J	NA	5.4 UJ	NA	7.3 UJ	NA	5.9 UJ	NA	5.2 UJ	NA	5.3 UJ	NA
Arsenic	0.39	0.626	1.7 J	NA	2.7 J	NA	1.8 J	NA	0.99	NA	2 J	NA	1.5 J	NA	1.4	NA	1.9	NA	2.4	NA	1.7	NA	1.3	NA
Barium	540	14.5	11.9 J	NA	13.6 J	NA	10.8 J	NA	11.5 J	NA	20.9	NA	21.2	NA	16.8 J	NA	64	NA	43.8	NA	25.8	NA	234	NA
Beryllium	15	0.103	0.069 J	NA	0.087 J	NA	0.054 J	NA	0.4 U	NA	0.05 J	NA	0.043 J	NA	0.45 U	NA	0.053 J	NA	0.07 J	NA	0.063 J	NA	0.072 J	NA
Cadmium	3.7	0.033	0.073 J	NA	0.12 J	NA	0.095 J	NA	0.035 J	NA	0.23 J	NA	0.31 J	NA	0.26 J	NA	0.32 J	NA	0.3 J	NA	0.37 J	NA	0.38 J	NA
Calcium	--	6,360	6,330	NA	14,400	NA	17,900	NA	1,240	NA	26,600 J	NA	21,900 J	NA	28,900	NA	38,100	NA	58,400	NA	6,240	NA	1,550	NA
Chromium	22	6.05	4.5	NA	9	NA	5.8	NA	3.3	NA	9	NA	5.5	NA	7.7 J	NA	10.6	NA	11.1	NA	9.8	NA	8.5	NA
Cobalt	140	0.294	0.21 J	NA	0.59 J	NA	0.26 J	NA	0.17 J	NA	0.61 J	NA	0.27 J	NA	0.35 J	NA	0.47 J	NA	0.7 J	NA	0.42 J	NA	0.53 J	NA
Copper	310	4.83	1.3 U	NA	2.9 J	NA	2.1 J	NA	0.85 J	NA	2.8	NA	2.8	NA	3.7	NA	5.9	NA	4.1	NA	6	NA	5.6	NA
Cyanide	120	--	2.4 U	NA	3 U	NA	2.5 U	NA	2.6 U	NA	3.1 U	NA	2.8 U	NA	3 UJ	NA	3.7 U	NA	2.9 U	NA	2.9 U	NA	2.5 U	NA
Iron	2,300	3,245	2,830 J	NA	5,400 J	NA	2,680 J	NA	1,670	NA	3,590 J	NA	3,480 J	NA	2,630	NA	3,920	NA	4,560	NA	5,250	NA	3,590	NA
Lead	400	12.3	10.1	NA	10.9	NA	9.5	NA	19.8	NA	13.2	NA	33.2	NA	60 J	NA	56.1 J	NA	50.2 J	NA	56.7 J	NA	184 J	NA
Magnesium	--	238	203 J	NA	404 J	NA	384 J	NA	115 J	NA	1,540	NA	480	NA	534	NA	712	NA	1,050	NA	304 J	NA	193 J	NA
Manganese	180	13.7	10	NA	12.2	NA	11.9	NA	9	NA	20.3	NA	17	NA	16.3	NA	35.9	NA	28.1	NA	20.6	NA	37.1	NA
Mercury	2.3	0.081	0.029 J	NA	0.053	NA	0.014 J	NA	0.022 J	NA	0.046 J	NA	0.042 J	NA	0.03 J	NA	0.03 J	NA	0.029 J	NA	0.053 J	NA	0.021 J	NA
Nickel	160	1.21	1.1 J	NA	3 J	NA	1.5 J	NA	0.8 J	NA	9.5	NA	1.6 J	NA	3.6 U	NA	2.4 J	NA	2.4 J	NA	2.6 J	NA	2.2 J	NA
Potassium	--	116	123 J	NA	229 J	NA	121 J	NA	75.1 J	NA	169 J	NA	130 U	NA	140 J	NA	223 J	NA	275 J	NA	209 J	NA	152 J	NA
Selenium	39	0.563	2.7 U	NA	3.3 U	NA	0.55 J	NA	2.8 U	NA	0.63 J	NA	0.43 J	NA	0.48 J	NA	4.2 U	NA	3.5 U	NA	3 U	NA	3.1 U	NA
Sodium	--	80.9	25.2 J	NA	44 J	NA	45.8 J	NA	21.9 J	NA	58.5 J	NA	34.2 J	NA	450 U	NA	71 J	NA	129 J	NA	36.2 J	NA	19.6 J	NA
Vanadium	7.8	8.5	6.5 J	NA	11.8 J	NA	7.5 J	NA	4.9	NA	9.3	NA	6.8	NA	10.7	NA	12	NA	11.6	NA	11.3	NA	8.1	NA
Zinc	2,300	10.8	16.7	NA	19	NA	14.1	NA	5.4	NA	33.4	NA	69.8	NA	34.8	NA	64.3	NA	122	NA	54.7	NA	121	NA
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-F08		MR04-F09		MR04-F10		MR04-F11		MR04-F12		MR04-F13		MR04-F14		MR04-F15		MR04-F16		MR04-F17		MR04-F18	
Sample ID			MR04-F08-0-1-07D	MR04-F08-07D	MR04-F09-0-1-07D	MR04-F09-07D	MR04-F10-0-1-07D	MR04-F10-07D	MR04-F11-0-1-07D[1]	MR04-F11-07D[1]	MR04-F12-0-1-07C	MR04-F12-07C	MR04-F13-0-1-07C	MR04-F13-07C	MR04-F14-0-1-07C	MR04-F14-07C	MR04-F15-0-1-07C	MR04-F15-07C	MR04-F16-0-1-07C	MR04-F16-07C	MR04-F17-0-1-07C	MR04-F17-07C	MR04-F18-0-1-07C	MR04-F18-07C
Sample Date			10/19/07	10/19/07	10/19/07	10/19/07	10/21/07	10/21/07	10/21/07	10/21/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	NA	18 U	NA	12 U	NA	7.2 J	NA	270 J	NA	13 J	NA	16 UJ	NA	15 J	NA	4 J	NA	4 J	NA	10 J	NA	8 J
Acetone	1,400,000	--	NA	18 UJ	NA	98 J	NA	210 J	NA	5,300 J	NA	220 J	NA	48 J	NA	66 J	NA	42 J	NA	27 J	NA	120 J	NA	86 J
Benzene	640	--	NA	18 U	NA	12 U	NA	10 U	NA	530 U	NA	16 U	NA	16 UJ	NA	8 J	NA	13 U	NA	14 UJ	NA	11 UJ	NA	11 UJ
Carbon disulfide	36,000	--	NA	18 U	NA	12 U	NA	10 U	NA	530 U	NA	16 U	NA	16 UJ	NA	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	11 UJ
Methyl acetate	2,200,000	--	NA	5.5 J	NA	12 U	NA	100	NA	3,200	NA	16 U	NA	220 J	NA	35 J	NA	110 J	NA	100 J	NA	140 J	NA	65 J
Methylcyclohexane	260,000	--	NA	18 U	NA	12 U	NA	10 U	NA	530 U	NA	16 U	NA	16 UJ	NA	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	11 UJ
Styrene	1,700,000	--	NA	18 U	NA	12 U	NA	10 U	NA	530 U	NA	16 U	NA	16 UJ	NA	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	11 UJ
Toluene	520,000	--	NA	18 U	NA	12 U	NA	10 U	NA	1.8 J	NA	16 U	NA	16 UJ	NA	10 J	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	11 UJ
Trichloroethene	53	--	NA	18 U	NA	12 U	NA	10 U	NA	530 U	NA	16 U	NA	16 UJ	NA	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	11 UJ
Semi-volatile Organic Compounds (UG_KG)																								
2-Methylnaphthalene	5,600	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Acenaphthene	370,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	21 J	NA	400 U	NA	410 U	NA
Acetophenone	--	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Anthracene	2,200,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	90 J	NA	400 U	NA	410 U	NA
Benzaldehyde	610,000	--	430 U	NA	400 U	NA	370 UJ	NA	17 J	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Benzo(a)anthracene	620	--	430 U	NA	60 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	24 J	NA	28 J	NA	850	NA	150 J	NA	130 J	NA
Benzo(a)pyrene	62	--	430 U	NA	160 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	24 J	NA	51 J	NA	1,000	NA	210 J	NA	180 J	NA
Benzo(b)fluoranthene	620	--	430 U	NA	220 J	NA	19 J	NA	350 U	NA	460 U	NA	23 J	NA	47 J	NA	88 J	NA	1,300	NA	240 J	NA	220 J	NA
Benzo(g,h,i)perylene	230,000	--	430 U	NA	120 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	39 J	NA	600	NA	190 J	NA	190 J	NA
Benzo(k)fluoranthene	6,200	--	430 U	NA	240 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	30 J	NA	75 J	NA	1,000	NA	230 J	NA	210 J	NA
Butylbenzylphthalate	1,200,000	--	33 J	NA	400 U	NA	25 J	NA	69 J	NA	460 U	NA	450 U	NA	450 U	NA	26 J	NA	460 U	NA	18 J	NA	28 J	NA
Caprolactam	3,100,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Carbazole	24,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	130 J	NA	21 J	NA	410 U	NA
Chrysene	62,000	--	430 U	NA	110 J	NA	17 J	NA	350 U	NA	460 U	NA	22 J	NA	41 J	NA	63 J	NA	1,300	NA	240 J	NA	210 J	NA
Di-n-butylphthalate	610,000	--	430 U	NA	25 J	NA	370 U	NA	350 U	NA	24 J	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Dibenz(a,h)anthracene	62	--	430 U	NA	29 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	150 J	NA	36 J	NA	40 J	NA
Dibenzofuran	15,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Fluoranthene	230,000	--	430 U	NA	72 J	NA	27 J	NA	350 U	NA	460 U	NA	33 J	NA	58 J	NA	86 J	NA	2,800	NA	410	NA	350 J	NA
Fluorene	270,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	30 J	NA	400 U	NA	410 U	NA
Indeno(1,2,3-cd)pyrene	620	--	430 U	NA	130 J	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	34 J	NA	520	NA	160 J	NA	150 J	NA
Phenanthrene	230,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	960	NA	120 J	NA	110 J	NA
Phenol	1,800,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Pyrene	230,000	--	430 UJ	NA	86 J	NA	23 J	NA	350 U	NA	460 U	NA	27 J	NA	55 J	NA	63 J	NA	1,600	NA	360 J	NA	300 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	350 J	NA	270 J	NA	370 U	NA	350 U	NA	150 J	NA	46 J	NA	67 J	NA	62 J	NA	71 J	NA	120 J	NA	200 J	NA
n-Nitrosodiphenylamine	99,000	--	430 U	NA	400 U	NA	370 U	NA	350 U	NA	460 U	NA	450 U	NA	450 U	NA	450 U	NA	460 U	NA	400 U	NA	410 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	4.3 U	NA	4 U	NA	1,000	NA	3.5 U	NA	16	NA	4.5 U	NA	21	NA	4.5 U	NA	4.6 U	NA	4 U	NA	4.1 U	NA
4,4'-DDE	1,700	--	23	NA	5.9	NA	20	NA	6.7	NA	5.8	NA	13	NA	550	NA	22	NA	4.6 U	NA	3.8 J	NA	4.1 J	NA
4,4'-DDT	1,700	--	22	NA	4.7	NA	15	NA	4.8	NA	5.4	NA	6.3	NA	290	NA	22	NA	2.8 J	NA	7.7	NA	17	NA
Aldrin	29	--	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	2.4 U	NA	2.3 U	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	NA	2.1 U	NA
Aroclor-1260	--	--	43 U	NA	40 U	NA	74 U	NA	35 U	NA	46 U	NA	45 U	NA	89 U	NA	45 U	NA	46 U	NA	40 U	NA	41 U	NA
Dieldrin	30	--	7.4	NA	4 U	NA	7.4 U	NA	5.2	NA	1.9 J	NA	2.4 J	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	NA	4.1 U	NA
Endrin	1,800	--	4.3 U	NA	4 U	NA	7.4 U	NA	3.5 U	NA	4.6 U	NA	4.5 U	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	NA	4.1 U	NA
Endrin aldehyde	1,800	--	2.4 J	NA	4 U	NA	7.4 U	NA	4.7 U	NA	4.6 U	NA	4.5 U	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	NA	4.1 U	NA
Heptachlor epoxide	53	--	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	2.4 U	NA	2.3 U	NA	3.2 J	NA	2.3 U	NA	2.4 U	NA	2 U	NA	2.1 U	NA
alpha-Chlordane	1,600	--	1.6 J	NA	2 U	NA	3.8 U	NA	1.8 U	NA	2.4 U	NA	2.3 U	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	NA	2.1 U	NA
beta-BHC	320	--	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	2.4 U	NA	2.3 U	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	NA	2.1 U	NA
gamma-Chlordane	1,600	--	2.3	NA	2 U	NA	3.8 U	NA	1.8 U	NA	2.4 U	NA	2.3 U	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	NA	2.1 U	NA
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	3,370	NA	4,960	NA	3,960	NA	3,140	NA	5,840	NA	4,770	NA	5,500	NA	4,510 J	NA	5,560 J	NA	4,780	NA	5,820	NA
Antimony	3.1	0.447	5.9 UJ	NA	5.5 UJ	NA	5.1 U	NA	4.7 U	NA	5.9 U	NA	0.44 J	NA	6 UJ	NA	6.2 UJ	NA	6.1 UJ	NA	5.4 UJ	NA	0.31 J	NA
Arsenic	0.39	0.626	1.2	NA	1.5	NA	1.5	NA	1.8	NA	1.7	NA	1.9	NA	2.5	NA	3.5	NA	2.1	NA	2.1	NA	3.5	NA
Barium	540	14.5	16.6 J	NA	15.5 J	NA	19.7	NA	12.2 J	NA	17.2 J	NA	54.2	NA	16.8 J	NA	14 J	NA	15.9 J	NA	14.2 J	NA	19.3	NA
Beryllium	15	0.103	0.035 J	NA	0.046 J	NA	0.42 U	NA	0.4 U	NA	0.49 U	NA	0.052 J	NA	0.074 J	NA	0.045 J	NA	0.1 J	NA	0.09 J	NA	0.11 J	NA
Cadmium	3.7	0.033	0.2 J	NA	0.15 J	NA	0.42 U	NA	0.51	NA	0.16 J	NA	0.083 J	NA	0.17 J	NA	0.13 J	NA	0.15 J	NA	0.19 J	NA	0.21 J	NA
Calcium	--	6,360	3,480	NA	2,600	NA	6,600	NA	99,800	NA	1,730 J	NA	10,500	NA	79,300	NA	13,000 J	NA	3,230 J	NA	23,100	NA	11,100	NA
Chromium	22	6.05	4.5	NA	6.2	NA	5.5	NA	10.5	NA	6.1	NA	5.4	NA	9.2	NA	6.6 J	NA	6.1 J	NA	7.4	NA	8.8	NA
Cobalt	140	0.294	0.2 J	NA	0.26 J	NA	0.22 J	NA	0.32 J	NA	5 U	NA	0.29 J	NA	0.53 J	NA	0.27 J	NA	0.33 J	NA	0.71 J	NA	0.8 J	NA
Copper	310	4.83	2.9	NA	2.5	NA	2.8	NA	4.8	NA	3.3	NA	3.2	NA	3.4	NA	2.6	NA	2.8	NA	2 J	NA	2.5	NA
Cyanide	120	--	2.6 U	NA	2.7 U	NA	2.7 U	NA	2.2 U	NA	3.4 U	NA	3.1 U	NA	3.3 U	NA	2.9 U	NA	3.2 U	NA	2.8 U	NA	3.1 U	NA
Iron	2,300	3,245	2,160	NA	3,750	NA	2,570	NA	4,230	NA	3,360 J	NA	2,930	NA	3,790	NA	3,560 J	NA	3,210 J	NA	2,870	NA	4,020	NA
Lead	400	12.3	45.1 J	NA	49 J	NA	15	NA	30.6	NA	34.9	NA	26	NA	36.5	NA	23.3	NA	22.7	NA	14.7	NA	18.6	NA
Magnesium	--	238	159 J	NA	220 J	NA	270 J	NA	1,500	NA	225 J	NA	286 J	NA	1,220	NA	340 J	NA	220 J	NA	462	NA	386 J	NA
Manganese	180	13.7	23.3	NA	16.8	NA	19.2	NA	30.3	NA	14.1	NA	18	NA	34.4	NA	12.2	NA	14.9	NA	15.4	NA	16	NA
Mercury	2.3	0.081	0.018 J	NA	0.034 J	NA	0.031 J	NA	0.018 J	NA	0.015 J	NA	0.023 J	NA	0.027 J	NA	0.017 J	NA	0.016 J	NA	0.019 J	NA	0.12 U	NA
Nickel	160	1.21	1.6 J	NA	1.5 J	NA	1.2 J	NA	3 J	NA	1.6 J	NA	1.7 J	NA	2.8 J	NA	1.6 J	NA	2.5 J	NA	2.4 J	NA	3 J	NA
Potassium	--	116	112 J	NA	158 J	NA	137 J	NA	228 J	NA	168 J	NA	139 J	NA	257 J	NA	163 J	NA	170 J	NA	178 J	NA	191 J	NA
Selenium	39	0.563	3.4 U	NA	3.2 U	NA	0.48 J	NA	0.48 J	NA	3.5 U	NA	0.34 J	NA	1.6 J	NA	0.52 J	NA	3.6 U	NA	0.67 J	NA	0.5 J	NA
Sodium	--	80.9	21.6 J	NA	21.6 J	NA	42.2 J	NA	179 J	NA	29.4 J	NA	29.4 J	NA	104 J	NA	28.7 J	NA	20.8 J	NA	67.6 J	NA	84.6 J	NA
Vanadium	7.8	8.9	6.8	NA	9	NA	7.1	NA	7.9	NA	8.5	NA	8.1	NA	14.1	NA	9	NA	8.2	NA	8.4	NA	10.2	NA
Zinc	2,300	10.8	42.9	NA	42.3	NA	12.1	NA	77	NA	36.1	NA	16.7	NA	26.8	NA	75.8	NA	58.9	NA	71.6	NA	57.7	NA
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-F19		MR04-F20		MR04-F21	
Sample ID			MR04-F19-0-1-07C	MR04-F19-07C	MR04-F20-0-1-07C	MR04-F20-07C	MR04-F21-0-1-07C	MR04-F21-07C
Sample Date			09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name								
Volatile Organic Compounds (UG_KG)								
2-Butanone	2,200,000	--	NA	4 J	NA	12 UJ	NA	9 UJ
Acetone	1,400,000	--	NA	160 J	NA	73 J	NA	270 J
Benzene	640	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Carbon disulfide	36,000	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Methyl acetate	2,200,000	--	NA	400 J	NA	160 J	NA	2,500 J
Methylcyclohexane	260,000	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Styrene	1,700,000	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Toluene	520,000	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Trichloroethene	53	--	NA	10 UJ	NA	12 UJ	NA	9 UJ
Semi-volatile Organic Compounds (UG_KG)								
2-Methylnaphthalene	5,600	--	390 U	NA	410 U	NA	360 U	NA
Acenaphthene	370,000	--	390 U	NA	410 U	NA	360 U	NA
Acetophenone	--	--	390 U	NA	410 U	NA	360 U	NA
Anthracene	2,200,000	--	390 U	NA	410 U	NA	360 U	NA
Benzaldehyde	610,000	--	390 U	NA	410 U	NA	360 U	NA
Benzo(a)anthracene	620	--	33 J	NA	410 U	NA	53 J	NA
Benzo(a)pyrene	62	--	45 J	NA	410 U	NA	66 J	NA
Benzo(b)fluoranthene	620	--	57 J	NA	410 U	NA	80 J	NA
Benzo(g,h,i)perylene	230,000	--	41 J	NA	410 U	NA	71 J	NA
Benzo(k)fluoranthene	6,200	--	41 J	NA	410 U	NA	78 J	NA
Butylbenzylphthalate	1,200,000	--	41 J	NA	22 J	NA	20 J	NA
Caprolactam	3,100,000	--	390 U	NA	410 U	NA	360 U	NA
Carbazole	24,000	--	390 U	NA	410 U	NA	360 U	NA
Chrysene	62,000	--	56 J	NA	410 U	NA	87 J	NA
Di-n-butylphthalate	610,000	--	390 U	NA	410 U	NA	360 U	NA
Dibenz(a,h)anthracene	62	--	390 U	NA	410 U	NA	17 J	NA
Dibenzofuran	15,000	--	390 U	NA	410 U	NA	360 U	NA
Fluoranthene	230,000	--	78 J	NA	410 U	NA	120 J	NA
Fluorene	270,000	--	390 U	NA	410 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	620	--	35 J	NA	410 U	NA	60 J	NA
Phenanthrene	230,000	--	18 J	NA	410 U	NA	33 J	NA
Phenol	1,800,000	--	390 U	NA	410 U	NA	360 U	NA
Pyrene	230,000	--	81 J	NA	410 U	NA	120 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	84 J	NA	150 J	NA	110 J	NA
n-Nitrosodiphenylamine	99,000	--	390 U	NA	410 U	NA	360 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)								
4,4'-DDD	2,400	--	7.3	NA	4.1 U	NA	3.4 J	NA
4,4'-DDE	1,700	--	46	NA	4.3	NA	16 J	NA
4,4'-DDT	1,700	--	88	NA	6.5	NA	47	NA
Aldrin	29	--	2 U	NA	2.1 U	NA	1.9 U	NA
Aroclor-1260	--	--	39 U	NA	41 U	NA	36 U	NA
Dieldrin	30	--	3.9 U	NA	4.1 U	NA	3.6 U	NA
Endrin	1,800	--	3.9 U	NA	4.1 U	NA	3.6 U	NA
Endrin aldehyde	1,800	--	3.9 U	NA	4.1 U	NA	3.6 U	NA
Heptachlor epoxide	53	--	2 U	NA	2.1 U	NA	1.9 U	NA
alpha-Chlordane	1,600	--	2 U	NA	2.1 U	NA	1.9 U	NA
beta-BHC	320	--	2 U	NA	2.1 U	NA	1.9 U	NA
gamma-Chlordane	1,600	--	2 U	NA	2.1 U	NA	1.9 U	NA
Explosives (UG_KG)								
No Detections								
Total Metals (MG_KG)								
Aluminum	7,600	5,487	4,640	NA	4,390	NA	5,450	NA
Antimony	3.1	0.447	5.4 UJ	NA	5.6 UJ	NA	5 UJ	NA
Arsenic	0.39	0.626	2	NA	4	NA	1.5	NA
Barium	540	14.5	14.2 J	NA	12.4 J	NA	16.7	NA
Beryllium	15	0.103	0.083 J	NA	0.076 J	NA	0.065 J	NA
Cadmium	3.7	0.033	0.13 J	NA	0.16 J	NA	0.036 J	NA
Calcium	--	6,360	5,460	NA	102,000	NA	1,340	NA
Chromium	22	6.05	5.5	NA	8.3	NA	5.1	NA
Cobalt	140	0.294	0.32 J	NA	0.22 J	NA	0.23 J	NA
Copper	310	4.83	3.1	NA	2.2 J	NA	1.1 J	NA
Cyanide	120	--	2.6 U	NA	2.9 U	NA	2.7 U	NA
Iron	2,300	3,245	2,890	NA	2,990	NA	2,800	NA
Lead	400	12.3	25.1	NA	8.1	NA	6.1	NA
Magnesium	--	238	228 J	NA	1,530	NA	145 J	NA
Manganese	180	13.7	18.7	NA	22.8	NA	10.7	NA
Mercury	2.3	0.081	0.019 J	NA	0.091 U	NA	0.01 J	NA
Nickel	160	1.21	1.8 J	NA	1.6 J	NA	1.4 J	NA
Potassium	--	116	123 J	NA	196 J	NA	103 J	NA
Selenium	39	0.563	0.23 J	NA	1.9 J	NA	2.9 UJ	NA
Sodium	--	80.9	31.2 J	NA	204 J	NA	21 J	NA
Vanadium	7.8	8.9	7.4	NA	7.3	NA	6.9	NA
Zinc	2,300	10.8	21.9	NA	42.7	NA	6.5	NA
Wet Chemistry (MG_KG)								
No Detections								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria
Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-F22		MR04-F23		MR04-F24		MR04-F25		MR04-G01		MR04-G02		MR04-G04		MR04-G05		MR04-G06		MR04-G07		MR04-G
Sample ID			MR04-F22-0-1-07C	MR04-F22-07C	MR04-F23-0-1-07C	MR04-F23-07C	MR04-F24-0-1-07C	MR04-F24-07C	MR04-F25-0-1-07C	MR04-F25-07C	MR04-G01-0-1-07C	MR04-G01-07C	MR04-G02-0-1-07C	MR04-G02-07C	MR04-G04-0-1-07C	MR04-G04-07C	MR04-G05-0-1-07C	MR04-G05-07C	MR04-G06-0-1-07C	MR04-G06-07C	MR04-G07-0-1-07C	MR04-G07-07C	MR04-G08-0-1-07C[1]
Sample Date			09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/06/07
Chemical Name																							
Volatile Organic Compounds (UG_KG)																							
2-Butanone	2,200,000	--	NA	10 J	NA	6 J	NA	15 UJ	NA	17 J	NA	14 U	NA	11 UJ	NA	13 UJ	NA	3 J	NA	11 U	NA	11 U	NA
2-Hexanone	530,000	--	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Acetone	1,400,000	--	NA	49 J	NA	160 J	NA	85 J	NA	540 J	NA	29 J	NA	28 J	NA	20 J	NA	20 J	NA	44 J	NA	21 J	NA
Benzene	640	--	NA	3 J	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Carbon disulfide	36,000	--	NA	4 J	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Ethylbenzene	400,000	--	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Methyl acetate	2,200,000	--	NA	110 J	NA	710 J	NA	230 J	NA	5,700 J	NA	14 U	NA	6 J	NA	22 J	NA	11 U	NA	11 U	NA	11 U	NA
Methylcyclohexane	260,000	--	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Toluene	520,000	--	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U	NA	11 U	NA
Semi-volatile Organic Compounds (UG_KG)																							
Acenaphthene	370,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Acetophenone	--	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Anthracene	2,200,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	64 J
Benzo(a)anthracene	620	--	380 U	NA	470 U	NA	38 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	350 J
Benzo(a)pyrene	62	--	380 U	NA	470 U	NA	41 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	360 J
Benzo(b)fluoranthene	620	--	18 J	NA	470 U	NA	50 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	450 J
Benzo(g,h,i)perylene	230,000	--	380 U	NA	470 U	NA	42 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	210 J
Benzo(k)fluoranthene	6,200	--	380 U	NA	470 U	NA	42 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	220 J
Butylbenzylphthalate	1,200,000	--	19 J	NA	24 J	NA	42 J	NA	500 U	NA	460 U	NA	18 J	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Carbazole	24,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Chrysene	62,000	--	18 J	NA	21 J	NA	56 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	360 J
Di-n-butylphthalate	610,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	32 J
Dibenz(a,h)anthracene	62	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Dibenzofuran	15,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Fluoranthene	230,000	--	21 J	NA	30 J	NA	120 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	600
Fluorene	270,000	--	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	470 U
Indeno(1,2,3-cd)pyrene	620	--	380 U	NA	470 U	NA	34 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	200 J
Phenanthrene	230,000	--	380 U	NA	470 U	NA	46 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	200 J
Pyrene	230,000	--	19 J	NA	27 J	NA	86 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA	390 U	NA	490
bis(2-Ethylhexyl)phthalate	35,000	--	210 J	NA	170 J	NA	300 J	NA	66 J	NA	73 J	NA	88 J	NA	77 J	NA	410 U	NA	380 U	NA	390 U	NA	59 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																							
4,4'-DDD	2,400	--	3.8 U	NA	3 J	NA	6.1	NA	5 U	NA	1.3 J	NA	2.6 J	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA	3.9 U	NA	1.7 J
4,4'-DDE	1,700	--	11 J	NA	43	NA	33	NA	5 U	NA	51	NA	99	NA	7	NA	3.2 J	NA	3 J	NA	3.7 J	NA	28
4,4'-DDT	1,700	--	4.5	NA	33	NA	120	NA	12	NA	26	NA	47	NA	9.2	NA	2.8 J	NA	1.9 J	NA	6.5	NA	18
Aldrin	29	--	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	0.25 J	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA	2 U	NA	2.4 U
Aroclor-1260	--	--	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA	39 U	NA	47 U
Dieldrin	30	--	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	26	NA	2.5 J	NA	4.5 U	NA	0.39 J	NA	0.65 J	NA	2.2 J	NA	4.7 U
Endosulfan I	37,000	--	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA	2 U	NA	2.4 U
Endrin	1,800	--	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA	0.7 J	NA	4.7 U
Endrin aldehyde	1,800	--	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA	3.9 U	NA	4.7 U
alpha-Chlordane	1,600	--	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA	2 U	NA	2.4 U
beta-BHC	320	--	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA	2 U	NA	2.4 U
gamma-Chlordane	1,600	--	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA	2 U	NA	2.4 U
Explosives (UG_KG)																							
No Detections																							
Total Metals (MG_KG)																							
Aluminum	7,600	5,487	4,270	NA	5,070	NA	3,770	NA	4,290	NA	3,890	NA	4,020	NA	5,420	NA	7,110	NA	6,590	NA	3,730	NA	3,990
Antimony	3.1	0.447	4.9 UJ	NA	6.7 UJ	NA	2 J	NA	7.6 UJ	NA	5.5 UJ	NA	5.1 UJ	NA	6.1 UJ	NA	0.47 J	NA	0.41 J	NA	5.4 UJ	NA	5.6 UJ
Arsenic	0.39	0.626	1.8	NA	2.6	NA	2.7	NA	1.2 J	NA	1.4	NA	1.6	NA	2.2	NA	2.7	NA	2.9	NA	1.2 U	NA	1.7
Barium	540	14.5	10.8 J	NA	14.7 J	NA	11 J	NA	10.8 J	NA	15.5 J	NA	12.1 J	NA	21.6	NA	19.6 J	NA	27.1 J	NA	18.9 J	NA	24.6
Beryllium	15	0.103	0.07 J	NA	0.052 J	NA	0.049 J	NA	0.035 J	NA	0.019 J	NA	0.42 U	NA	0.025 J	NA	0.056 J	NA	0.08 J	NA	0.047 J	NA	0.043 J
Cadmium	3.7	0.033	0.093 J	NA	0.048 J	NA	0.16 J	NA	0.64 U	NA	0.19 J	NA	0.18 J	NA	0.12 J	NA	0.14 J	NA	0.1 J	NA	0.087 J	NA	0.4 J
Calcium	--	6,360	13,200	NA	19,500	NA	7,760	NA	736	NA	8,600	NA	21,800	NA	5,230	NA	11,000 J	NA	12,400 J	NA	1,960 J	NA	47,200 J
Chromium	22	6.05	6.1	NA	6.1	NA	4.9	NA	3.3	NA	5.2	NA	6.3 J	NA	7.4 J	NA	10.4	NA	11.6	NA	4.2	NA	6.9
Cobalt	140	0.294	0.76 J	NA	0.27 J	NA	0.18 J	NA	0.2 J	NA	0.27 J	NA	0.22 J	NA	0.25 J	NA	0.38 J	NA	0.44 J	NA	0.19 J	NA	0.27 J
Copper	310	4.83	1.1 J	NA	2.3 J	NA	7.2	NA	0.69 J	NA	2.6	NA	6.7	NA	4.4	NA	4.8	NA	3.4	NA	2.3	NA	9.3
Iron	2,300	3,245	2,390	NA	3,300	NA	2,780	NA	1,640	NA	2,960	NA	3,440	NA	5,490	NA	8,010	NA	6,070	NA	2,570	NA	2,440
Lead	400	12.3	6	NA	12.3	NA	34.9	NA	4.7	NA	32.4	NA	29.4 J	NA	21.8 J	NA	32.8	NA	40.7	NA	31.1	NA	29.5
Magnesium	--	238	266 J	NA	406 J	NA	213 J	NA	103 J	NA	239 J	NA	461	NA	234 J	NA	391 J	NA	387 J	NA	157 J	NA	802
Manganese	180	13.7	10.3	NA	11.7	NA	11.9	NA	7.8	NA	12.3	NA	13.2	NA	12.7	NA	16.8 J	NA	16.4 J	NA	16.6 J	NA	23.4
Mercury	2.3	0.081	0.079 U	NA	0.028 J	NA	0.034 J	NA	0.15 U	NA	0.067 U	NA	0.026 J	NA	0.073	NA	0.22 U	NA	0.043 J	NA	0.22 U	NA	0.47
Nickel	160	1.21	2 J	NA	1.4 J	NA	3.9 J	NA	1.2 J	NA	1.7 J	NA	3.4 U	NA	4 U	NA	1.8 J	NA	1.8 J	NA	1.2 J	NA	1.9 J
Potassium	--	116	136 J	NA	148 J	NA	99.9 J	NA	62.7 J	NA	144 J	NA	165 J	NA	203 J	NA	283 J	NA	281 J	NA	137 J	NA	176 J
Selenium	39	0.563	0.39 J	NA	0.37 J	NA	3.6 U	NA	4.4 U	NA	0.28 J	NA	0.57 J	NA	3.5 U	NA	0.3 J	NA	0.45 J	NA	0.39 J	NA	0.73 J
Silver	39	0.14	0.81 U	NA	1.1 U	NA	1 U	NA	1.3 U	NA	0.91 U	NA	0.85 U	NA	1 U	NA	0.91 U	NA	0.86 U	NA	0.9 U	NA	1
Sodium	--	80.9	48.5 J	NA	50.4 J	NA	26 J	NA	19.2 J	NA	37.4 J	NA	424 U	NA	505 U	NA	36 J	NA	34.2 J	NA	17.5 J	NA	81 J
Vanadium	7.8	8.9	6.7	NA	8.7	NA	6.1	NA	4.6 J	NA	7.5	NA	7.7	NA	11.5	NA	14.8	NA	15.2	NA	6.6	NA	7.7
Zinc	2,300	10.8	8.4	NA	16.8	NA	25.3	NA	3.7 J	NA	34.6	NA	27	NA	13.5	NA	39.3	NA	22.3	NA	18.2	NA	38.1
Wet Chemistry (MG_KG)																							
No Detections																							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	**Region IX PRGs - Residential Soil Adjusted**	**Camp Lejeune Background SS 2X Mean**	G08	MR04-G09	
Sample ID			MR04-G08-07C[1]	MR04-G09-0-1-07C	MR04-G09-07C
Sample Date			09/06/07	09/06/07	09/06/07
Chemical Name					
Volatile Organic Compounds (UG_KG)					
2-Butanone	2,200,000	--	3.3 J	NA	47
2-Hexanone	530,000	--	14 U	NA	15 U
Acetone	1,400,000	--	20 J	NA	830 J
Benzene	640	--	14 U	NA	15 U
Carbon disulfide	36,000	--	14 U	NA	15 U
Ethylbenzene	400,000	--	14 U	NA	15 U
Methyl acetate	2,200,000	--	14 U	NA	15 U
Methylcyclohexane	260,000	--	14 U	NA	15 U
Toluene	520,000	--	14 U	NA	15 U
Semi-volatile Organic Compounds (UG_KG)					
Acenaphthene	370,000	--	NA	390 U	NA
Acetophenone	--	--	NA	390 U	NA
Anthracene	2,200,000	--	NA	390 U	NA
Benzo(a)anthracene	620	--	NA	390 U	NA
Benzo(a)pyrene	62	--	NA	390 U	NA
Benzo(b)fluoranthene	620	--	NA	390 U	NA
Benzo(g,h,i)perylene	230,000	--	NA	390 U	NA
Benzo(k)fluoranthene	6,200	--	NA	390 U	NA
Butylbenzylphthalate	1,200,000	--	NA	390 U	NA
Carbazole	24,000	--	NA	390 U	NA
Chrysene	62,000	--	NA	390 U	NA
Di-n-butylphthalate	610,000	--	NA	390 U	NA
Dibenz(a,h)anthracene	62	--	NA	390 U	NA
Dibenzofuran	15,000	--	NA	390 U	NA
Fluoranthene	230,000	--	NA	390 U	NA
Fluorene	270,000	--	NA	390 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	390 U	NA
Phenanthrene	230,000	--	NA	390 U	NA
Pyrene	230,000	--	NA	390 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	56 J	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)					
4,4'-DDD	2,400	--	NA	3.9 U	NA
4,4'-DDE	1,700	--	NA	6.8	NA
4,4'-DDT	1,700	--	NA	7.8 J	NA
Aldrin	29	--	NA	2 U	NA
Aroclor-1260	--	--	NA	39 U	NA
Dieldrin	30	--	NA	0.51 J	NA
Endosulfan I	37,000	--	NA	2 U	NA
Endrin	1,800	--	NA	3.9 U	NA
Endrin aldehyde	1,800	--	NA	3.9 U	NA
alpha-Chlordane	1,600	--	NA	2 U	NA
beta-BHC	320	--	NA	2 U	NA
gamma-Chlordane	1,600	--	NA	2 U	NA
Explosives (UG_KG)					
No Detections					
Total Metals (MG_KG)					
Aluminum	7,600	5,487	NA	3,750	NA
Antimony	3.1	0.447	NA	4.8 UJ	NA
Arsenic	0.39	0.626	NA	1.3	NA
Barium	540	14.5	NA	14.6 J	NA
Beryllium	15	0.103	NA	0.05 J	NA
Cadmium	3.7	0.033	NA	0.15 J	NA
Calcium	--	6,360	NA	44,800	NA
Chromium	22	6.05	NA	4.6	NA
Cobalt	140	0.294	NA	0.26 J	NA
Copper	310	4.83	NA	2.6	NA
Iron	2,300	3,245	NA	1,940	NA
Lead	400	12.3	NA	94.5	NA
Magnesium	--	238	NA	711	NA
Manganese	180	13.7	NA	16.7	NA
Mercury	2.3	0.081	NA	0.055 U	NA
Nickel	160	1.21	NA	1.5 J	NA
Potassium	--	116	NA	142 J	NA
Selenium	39	0.563	NA	0.85 J	NA
Silver	39	0.14	NA	0.8 U	NA
Sodium	--	80.9	NA	77.7 J	NA
Vanadium	7.8	8.9	NA	6.7	NA
Zinc	2,300	10.8	NA	16.3	NA
Wet Chemistry (MG_KG)					
No Detections					

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-G10		MR04-G11		MR04-G12		MR04-G13		MR04-G14		MR04-G15		MR04-G16		MR04-G17		MR04-G18		MR04-G19		MR04-G
Sample ID			MR04-G10-0-1-07C	MR04-G10-07C	MR04-G11-0-1-07C	MR04-G11-07C	MR04-G12-0-1-07C	MR04-G12-07C	MR04-G13-0-1-07C	MR04-G13-07C	MR04-G14-0-1-07C[1]	MR04-G14-07C[1]	MR04-G15-0-1-07C	MR04-G15-07C	MR04-G16-0-1-07C	MR04-G16-07C	MR04-G17-07C	MR04-G17-0-1-07C	MR04-G18-0-1-07C	MR04-G18-07C	MR04-G19-0-1-07C[1]	MR04-G19-07C[1]	MR04-G20-0-1-07C
Sample Date			09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																							
Volatile Organic Compounds (UG_KG)																							
2-Butanone	2,200,000	--	NA	12 U	NA	35 J	NA	12 U	NA	15 U	NA	8 J	NA	12 U	NA	5 J	7.1 J	NA	NA	14 U	NA	11 J	NA
2-Hexanone	530,000	--	NA	12 U	NA	2.8 J	NA	12 U	NA	15 UJ	NA	17 UJ	NA	12 UJ	NA	11 UJ	14 U	NA	NA	14 U	NA	13 U	NA
Acetone	1,400,000	--	NA	12 U	NA	690 J	NA	20 J	NA	100 J	NA	52	NA	41 J	NA	63 J	97 J	NA	NA	95 J	NA	76 J	NA
Benzene	640	--	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA	12 U	NA	11 UJ	14 U	NA	NA	12 J	NA	13 U	NA
Carbon disulfide	36,000	--	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA	12 U	NA	11 U	1.5 J	NA	NA	1.2 J	NA	1.8 J	NA
Ethylbenzene	400,000	--	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA	12 UJ	NA	11 UJ	14 U	NA	NA	14 U	NA	13 U	NA
Methyl acetate	2,200,000	--	NA	12 U	NA	6.3 J	NA	12 U	NA	240 J	NA	98	NA	70	NA	260 J	28	NA	NA	17	NA	13 U	NA
Methylcyclohexane	260,000	--	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA	12 U	NA	11 UJ	14 U	NA	NA	14 U	NA	13 U	NA
Toluene	520,000	--	NA	12 U	NA	1.1 J	NA	12 U	NA	3 J	NA	17 UJ	NA	12 UJ	NA	11 UJ	2 J	NA	NA	1.6 J	NA	1 J	NA
Semi-volatile Organic Compounds (UG_KG)																							
Acenaphthene	370,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	370 U	NA	27 J	NA	NA	460 U	430 U	NA	450 U	NA	430 U
Acetophenone	--	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	370 U	NA	360 U	NA	NA	460 U	430 U	NA	450 U	NA	430 U
Anthracene	2,200,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	21 J	NA	160 J	NA	NA	460 U	430 U	NA	36 J	NA	430 U
Benzo(a)anthracene	620	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	53 J	NA	240 J	NA	710	NA	NA	460 U	230 J	NA	230 J	NA	43 J
Benzo(a)pyrene	62	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	76 J	NA	290 J	NA	570	NA	NA	460 U	310 J	NA	240 J	NA	63 J
Benzo(b)fluoranthene	620	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	100 J	NA	470	NA	610	NA	NA	25 J	420 J	NA	280 J	NA	91 J
Benzo(g,h,i)perylene	230,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	87 J	NA	180 J	NA	260 J	NA	NA	460 U	270 J	NA	160 J	NA	55 J
Benzo(k)fluoranthene	6,200	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	75 J	NA	300 J	NA	720	NA	NA	460 U	260 J	NA	180 J	NA	42 J
Butylbenzylphthalate	1,200,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	370 U	NA	20 J	NA	NA	310 J	430 U	NA	450 U	NA	430 U
Carbazole	24,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	23 J	NA	140 J	NA	NA	460 U	430 U	NA	450 U	NA	430 U
Chrysene	62,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	110 J	NA	390	NA	790	NA	NA	25 J	360 J	NA	290 J	NA	75 J
Di-n-butylphthalate	610,000	--	380 U	NA	360 U	NA	28 J	NA	440 U	NA	440 U	NA	370 U	NA	29 J	NA	NA	460 U	28 J	NA	450 U	NA	23 J
Dibenz(a,h)anthracene	62	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	47 J	NA	73 J	NA	NA	460 U	430 U	NA	36 J	NA	430 U
Dibenzofuran	15,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	370 U	NA	17 J	NA	NA	460 U	430 U	NA	450 U	NA	430 U
Fluoranthene	230,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	190 J	NA	670	NA	2,000	NA	NA	32 J	530	NA	540	NA	120 J
Fluorene	270,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	370 U	NA	40 J	NA	NA	460 U	430 U	NA	450 U	NA	430 U
Indeno(1,2,3-cd)pyrene	620	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	72 J	NA	150 J	NA	230 J	NA	NA	460 U	250 J	NA	150 J	NA	50 J
Phenanthrene	230,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	55 J	NA	150 J	NA	820	NA	NA	460 U	120 J	NA	150 J	NA	31 J
Pyrene	230,000	--	380 U	NA	360 U	NA	420 U	NA	440 U	NA	140 J	NA	490	NA	1,200	NA	NA	30 J	410 J	NA	410 J	NA	87 J
bis(2-Ethylhexyl)phthalate	35,000	--	59 J	NA	360 U	NA	420 U	NA	40 J	NA	53 J	NA	320 J	NA	93 J	NA	NA	110 J	54 J	NA	130 J	NA	170 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																							
4,4'-DDD	2,400	--	3.8 U	NA	10	NA	0.6 J	NA	4.4 U	NA	4.4 U	NA	8.8	NA	3.6 U	NA	NA	0.56 J	4.3 U	NA	4.5 U	NA	4.3 U
4,4'-DDE	1,700	--	0.71 J	NA	57	NA	5.2	NA	15	NA	11 J	NA	240	NA	20 J	NA	NA	12	2.1 J	NA	3.2 J	NA	1.2 J
4,4'-DDT	1,700	--	3.8 U	NA	58	NA	3.1 J	NA	8.2	NA	11	NA	89	NA	48	NA	NA	9.3	1.5 J	NA	4.4 J	NA	1.1 J
Aldrin	29	--	2 UJ	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U	NA	1.9 U	NA	NA	2.3 U	2.2 U	NA	2.3 U	NA	2.2 U
Aroclor-1260	--	--	38 U	NA	36 U	NA	42 U	NA	44 U	NA	20 J	NA	37 U	NA	36 U	NA	NA	46 U	43 U	NA	45 U	NA	43 U
Dieldrin	30	--	3.8 U	NA	1.3 J	NA	0.44 J	NA	4.4 U	NA	4.4 U	NA	4.1	NA	3.6 U	NA	NA	4.2 J	0.73 J	NA	4.5 U	NA	4.3 U
Endosulfan I	37,000	--	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U	NA	1.9 U	NA	NA	2.3 U	2.2 U	NA	2.3 U	NA	2.2 U
Endrin	1,800	--	3.8 U	NA	9.3	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.7 U	NA	3.6 U	NA	NA	1.9 J	4.3 U	NA	0.83 J	NA	4.3 U
Endrin aldehyde	1,800	--	3.8 U	NA	3.6 U	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	1.8 J	NA	3.6 U	NA	NA	4.6 U	4.3 U	NA	4.5 U	NA	4.3 U
alpha-Chlordane	1,600	--	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U	NA	1.9 U	NA	NA	1 J	2.2 U	NA	2.3 U	NA	2.2 U
beta-BHC	320	--	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U	NA	1.9 U	NA	NA	2.3 U	2.2 U	NA	2.3 U	NA	2.2 U
gamma-Chlordane	1,600	--	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U	NA	1.9 U	NA	NA	2.3 U	2.2 U	NA	2.3 U	NA	2.2 U
Explosives (UG_KG)																							
No Detections																							
Total Metals (MG_KG)																							
Aluminum	7,600	5,487	4,100	NA	4,320	NA	4,930	NA	3,650	NA	5,730	NA	2,880 J	NA	4,260 J	NA	NA	5,210	4,350	NA	4,910	NA	4,920
Antimony	3.1	0.447	4.5 UJ	NA	4.6 UJ	NA	5.5 UJ	NA	5.9 UJ	NA	6 UJ	NA	5 UJ	NA	4.8 UJ	NA	NA	6.3 UJ	5.7 UJ	NA	6.2 UJ	NA	5.7 UJ
Arsenic	0.39	0.626	1.5	NA	1.4	NA	1.4	NA	1.4	NA	2.1	NA	1.3	NA	1.9	NA	NA	1.9	2.1	NA	2	NA	2.2
Barium	540	14.5	12.5 J	NA	16.4 J	NA	18.5 J	NA	14.7 J	NA	20.8	NA	26.3	NA	15.8 J	NA	NA	23.9 J	16.7 J	NA	15.1 J	NA	17.7 J
Beryllium	15	0.103	0.038 J	NA	0.39 U	NA	0.46 U	NA	0.04 J	NA	0.065 J	NA	0.027 J	NA	0.094 J	NA	NA	0.042 J	0.067 J	NA	0.061 J	NA	0.062 J
Cadmium	3.7	0.033	0.16 J	NA	0.068 J	NA	0.085 J	NA	0.085 J	NA	0.22 J	NA	0.13 J	NA	0.2 J	NA	NA	0.12 J	0.31 J	NA	0.24 J	NA	0.22 J
Calcium	--	6,360	37,700	NA	12,400 J	NA	5,050 J	NA	3,620	NA	26,200	NA	9,410 J	NA	8,400 J	NA	NA	4,610	35,700	NA	28,300	NA	23,900
Chromium	22	6.05	5	NA	4.4	NA	5.7	NA	4.8	NA	6.8	NA	4.3 J	NA	7.4 J	NA	NA	6.8	9.3	NA	8.8	NA	8.9
Cobalt	140	0.294	0.31 J	NA	3.9 U	NA	4.6 U	NA	0.2 J	NA	0.39 J	NA	0.24 J	NA	0.81 J	NA	NA	0.51 J	1.3 J	NA	0.95 J	NA	0.81 J
Copper	310	4.83	1.7 J	NA	2.3	NA	2.1 J	NA	1.9 J	NA	3.2	NA	3.2	NA	1.9 J	NA	NA	2.7	4.2	NA	2.8	NA	1.6 J
Iron	2,300	3,245	2,320	NA	2,140 J	NA	2,730 J	NA	2,670	NA	3,880	NA	2,240 J	NA	2,330 J	NA	NA	3,920	4,850	NA	2,960	NA	3,080
Lead	400	12.3	7.5	NA	18.5	NA	29.8	NA	35.6	NA	21.9	NA	41.8	NA	15.3	NA	NA	27.4	19.2	NA	14.6	NA	6
Magnesium	--	238	636	NA	319 J	NA	238 J	NA	192 J	NA	601	NA	291 J	NA	316 J	NA	NA	253 J	640	NA	619	NA	505
Manganese	180	13.7	25.2	NA	13.4	NA	15.7	NA	12.7	NA	20.2	NA	13.4	NA	15.9	NA	NA	14	27.6	NA	25	NA	14.4
Mercury	2.3	0.081	0.053 U	NA	0.036 J	NA	0.038 J	NA	0.013 J	NA	0.024 J	NA	0.1 U	NA	0.096 U	NA	NA	0.013 J	0.019 J	NA	0.0087 J	NA	0.057 U
Nickel	160	1.21	1.6 J	NA	1.2 J	NA	1.6 J	NA	1.3 J	NA	1.8 J	NA	1.5 J	NA	2.3 J	NA	NA	1.7 J	4.3	NA	2.7 J	NA	2.6 J
Potassium	--	116	168 J	NA	100 J	NA	148 J	NA	121 J	NA	190 J	NA	113 J	NA	179 J	NA	NA	184 J	198 J	NA	198 J	NA	196 J
Selenium	39	0.563	0.55 J	NA	0.25 J	NA	3.2 U	NA	3.4 U	NA	0.65 J	NA	0.39 J	NA	0.32 J	NA	NA	0.28 J	0.87 J	NA	0.74 J	NA	0.59 J
Silver	39	0.14	0.75 U	NA	0.78 U	NA	0.19 J	NA	0.99 U	NA	1 U	NA	0.83 U	NA	0.8 U	NA	NA	1.1 U	0.94 U	NA	1 U	NA	0.96 U
Sodium	--	80.9	52.2 J	NA	29 J	NA	26.4 J	NA	12.7 J	NA	35.9 J	NA	33.2 J	NA	56.6 J	NA	NA	22.9 J	93.2 J	NA	93.1 J	NA	101 J
Vanadium	7.8	8.9	8.4	NA	6.2	NA	8.7	NA	6.7	NA	9.6	NA	5.8	NA	7.4	NA	NA	7.9	8.7	NA	9.9	NA	8.8
Zinc	2,300	10.8	9.5	NA	9.8	NA	15.7	NA	19.3	NA	65.9	NA	61.9	NA	31.2	NA	NA	54.8	131	NA	48.2	NA	32.7
Wet Chemistry (MG_KG)																							
No Detections																							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	**Region IX PRGs - Residential Soil Adjusted**	**Camp Lejeune Background SS 2X Mean**	G20	MR04-G21		MR04-G22	
Sample ID			MR04-G20-07C	MR04-G21-0-1-07C	MR04-G21-07C	MR04-G22-0-1-07C	MR04-G22-07C
Sample Date			09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name							
Volatile Organic Compounds (UG_KG)							
2-Butanone	2,200,000	--	7.8 J	NA	7.3 J	NA	8.1 J
2-Hexanone	530,000	--	12 U	NA	14 U	NA	14 U
Acetone	1,400,000	--	75 J	NA	70 J	NA	93 J
Benzene	640	--	12 U	NA	14 U	NA	14 U
Carbon disulfide	36,000	--	2.8 J	NA	0.83 J	NA	14 U
Ethylbenzene	400,000	--	12 U	NA	14 U	NA	14 U
Methyl acetate	2,200,000	--	11 J	NA	7.6 J	NA	61
Methylcyclohexane	260,000	--	12 U	NA	14 U	NA	14 U
Toluene	520,000	--	12 U	NA	14 U	NA	14 U
Semi-volatile Organic Compounds (UG_KG)							
Acenaphthene	370,000	--	NA	450 U	NA	450 U	NA
Acetophenone	--	--	NA	450 U	NA	450 U	NA
Anthracene	2,200,000	--	NA	450 U	NA	450 U	NA
Benzo(a)anthracene	620	--	NA	450 U	NA	450 U	NA
Benzo(a)pyrene	62	--	NA	450 U	NA	450 U	NA
Benzo(b)fluoranthene	620	--	NA	30 J	NA	23 J	NA
Benzo(g,h,i)perylene	230,000	--	NA	450 U	NA	450 U	NA
Benzo(k)fluoranthene	6,200	--	NA	450 U	NA	450 U	NA
Butylbenzylphthalate	1,200,000	--	NA	450 U	NA	450 U	NA
Carbazole	24,000	--	NA	450 U	NA	450 U	NA
Chrysene	62,000	--	NA	450 U	NA	450 U	NA
Di-n-butylphthalate	610,000	--	NA	450 U	NA	450 U	NA
Dibenz(a,h)anthracene	62	--	NA	450 U	NA	450 U	NA
Dibenzofuran	15,000	--	NA	450 U	NA	450 U	NA
Fluoranthene	230,000	--	NA	42 J	NA	27 J	NA
Fluorene	270,000	--	NA	450 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	450 U	NA	450 U	NA
Phenanthrene	230,000	--	NA	450 U	NA	450 U	NA
Pyrene	230,000	--	NA	30 J	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	450 U	NA	450 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)							
4,4'-DDD	2,400	--	NA	4.5 U	NA	4.5 U	NA
4,4'-DDE	1,700	--	NA	5	NA	0.76 J	NA
4,4'-DDT	1,700	--	NA	3.6 J	NA	0.98 J	NA
Aldrin	29	--	NA	2.3 U	NA	2.3 U	NA
Aroclor-1260	--	--	NA	45 U	NA	45 U	NA
Dieldrin	30	--	NA	4.5 U	NA	4.5 U	NA
Endosulfan I	37,000	--	NA	2.3 U	NA	2.3 U	NA
Endrin	1,800	--	NA	0.84 J	NA	4.5 U	NA
Endrin aldehyde	1,800	--	NA	4.5 U	NA	4.5 U	NA
alpha-Chlordane	1,600	--	NA	2.3 U	NA	2.3 U	NA
beta-BHC	320	--	NA	2.3 U	NA	2.3 U	NA
gamma-Chlordane	1,600	--	NA	2.3 U	NA	2.3 U	NA
Explosives (UG_KG)							
No Detections							
Total Metals (MG_KG)							
Aluminum	7,600	5,487	NA	8,100	NA	4,290	NA
Antimony	3.1	0.447	NA	6 UJ	NA	6 UJ	NA
Arsenic	0.39	0.626	NA	3.5	NA	1.7	NA
Barium	540	14.5	NA	17.6 J	NA	12.8 J	NA
Beryllium	15	0.103	NA	0.083 J	NA	0.048 J	NA
Cadmium	3.7	0.033	NA	0.11 J	NA	0.06 J	NA
Calcium	--	6,360	NA	5,660	NA	15,300	NA
Chromium	22	6.05	NA	9	NA	4.5	NA
Cobalt	140	0.294	NA	0.39 J	NA	0.17 J	NA
Copper	310	4.83	NA	2.4 J	NA	1.3 J	NA
Iron	2,300	3,245	NA	4,830 J	NA	2,040	NA
Lead	400	12.3	NA	11.2	NA	9.2	NA
Magnesium	--	238	NA	395 J	NA	313 J	NA
Manganese	180	13.7	NA	15.2 J	NA	17	NA
Mercury	2.3	0.081	NA	0.11 U	NA	0.011 J	NA
Nickel	160	1.21	NA	1.8 J	NA	1.4 J	NA
Potassium	--	116	NA	279 J	NA	126 J	NA
Selenium	39	0.563	NA	3.5 U	NA	3.5 U	NA
Silver	39	0.14	NA	1 U	NA	1 U	NA
Sodium	--	80.9	NA	30.6 J	NA	32.4 J	NA
Vanadium	7.8	8.9	NA	11.7	NA	5.1	NA
Zinc	2,300	10.8	NA	10.7	NA	9.3	NA
Wet Chemistry (MG_KG)							
No Detections							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
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Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-G23		MR04-G24		MR04-G25		MR04-H01		MR04-H02		MR04-H04		MR04-H05		MR04-H06		MR04-H07		MR04-H08		MR04-H
Sample ID			MR04-G23-07C	MR04-G23-0-1-07C	MR04-G24-0-1-07C	MR04-G24-07C	MR04-G25-0-1-07D	MR04-G25-07D	MR04-H01-0-1-07C	MR04-H01-07C	MR04-H02-0-1-07C[1]	MR04-H02-07C[1]	MR04-H04-0-1-07C	MR04-H04-07C	MR04-H05-0-1-07C	MR04-H05-07C	MR04-H06-0-1-07C	MR04-H06-07C	MR04-H07-0-1-07C	MR04-H07-07C	MR04-H08-0-1-07C	MR04-H08-07C	MR04-H09-0-1-07C
Sample Date			09/08/07	09/08/07	09/08/07	09/08/07	10/21/07	10/21/07	09/05/07	09/05/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/06/07
Chemical Name																							
Volatile Organic Compounds (UG_KG)																							
2-Butanone	2,200,000	--	22	NA	NA	14 U	NA	48 R	NA	32	NA	9 J	NA	10 J	NA	25 J	NA	14 J	NA	7 J	NA	10 J	NA
2-Hexanone	530,000	--	14 U	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ	NA	9 UJ	NA	14 U	NA
Acetone	1,400,000	--	150 J	NA	NA	18 J	NA	48 R	NA	460 J	NA	220 J	NA	310 J	NA	550 J	NA	290 J	NA	100 J	NA	220 J	NA
Benzene	640	--	2.9 J	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ	NA	9 UJ	NA	14 U	NA
Carbon disulfide	36,000	--	13 J	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ	NA	9 UJ	NA	14 U	NA
Ethylbenzene	400,000	--	14 U	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ	NA	9 UJ	NA	14 U	NA
Methyl acetate	2,200,000	--	32	NA	NA	6.1 J	NA	48 R	NA	4.6 J	NA	1,200 J	NA	240 J	NA	520 J	NA	330 J	NA	120 J	NA	14 U	NA
Methylcyclohexane	260,000	--	14 U	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ	NA	9 UJ	NA	14 U	NA
Toluene	520,000	--	2.8 J	NA	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	19 UJ	NA	7 J	NA	4 J	NA	9 UJ	NA	14 U	NA
Semi-volatile Organic Compounds (UG_KG)																							
Acenaphthene	370,000	--	NA	470 U	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Acetophenone	--	--	NA	470 U	470 U	NA	27 J	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Anthracene	2,200,000	--	NA	44 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Benzo(a)anthracene	620	--	NA	450 J	470 U	NA	19 J	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Benzo(a)pyrene	62	--	NA	540	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Benzo(b)fluoranthene	620	--	NA	700	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Benzo(g,h,i)perylene	230,000	--	NA	460 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Benzo(k)fluoranthene	6,200	--	NA	340 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Butylbenzylphthalate	1,200,000	--	NA	470 U	470 U	NA	45 J	NA	420 U	NA	34 J	NA	24 J	NA	25 J	NA	32 J	NA	22 J	NA	450 U	NA	390 U
Carbazole	24,000	--	NA	42 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Chrysene	62,000	--	NA	600	470 U	NA	36 J	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Di-n-butylphthalate	610,000	--	NA	470 U	470 U	NA	350 U	NA	29 J	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	80 J	NA	390 U
Dibenz(a,h)anthracene	62	--	NA	470 U	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Dibenzofuran	15,000	--	NA	470 U	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Fluoranthene	230,000	--	NA	950	470 U	NA	47 J	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	22 J	NA	29 J	NA	390 U
Fluorene	270,000	--	NA	470 U	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Indeno(1,2,3-cd)pyrene	620	--	NA	410 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Phenanthrene	230,000	--	NA	290 J	470 U	NA	350 U	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
Pyrene	230,000	--	NA	780	470 U	NA	50 J	NA	420 U	NA	440 U	NA	410 U	NA	510 U	NA	440 U	NA	370 U	NA	450 U	NA	390 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	210 J	470 U	NA	350 U	NA	420 U	NA	270 J	NA	200 J	NA	55 J	NA	110 J	NA	45 J	NA	62 J	NA	42 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																							
4,4'-DDD	2,400	--	NA	4.6 UJ	4.7 U	NA	8.5	NA	4.2 U	NA	150	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA	15	NA	4.7	NA	7.1
4,4'-DDE	1,700	--	NA	1.6 J	1.2 J	NA	140	NA	1.1 J	NA	710	NA	2.3 J	NA	5.1 U	NA	8.7	NA	200	NA	76	NA	170
4,4'-DDT	1,700	--	NA	4.2 J	2.7 J	NA	71	NA	0.94 J	NA	540	NA	2.8 J	NA	5.1 U	NA	7.8	NA	360	NA	11	NA	190
Aldrin	29	--	NA	2.4 UJ	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA	1.9 U	NA	2.3 U	NA	2 U
Aroclor-1260	--	--	NA	46 UJ	47 U	NA	20 J	NA	42 U	NA	44 U	NA	41 U	NA	51 U	NA	44 U	NA	37 U	NA	45 U	NA	39 U
Dieldrin	30	--	NA	4.6 UJ	4.7 U	NA	3.5 U	NA	4.2 U	NA	290	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA	38	NA	1.2 J	NA	12
Endosulfan I	37,000	--	NA	0.76 J	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA	1.9 U	NA	2.3 U	NA	2 U
Endrin	1,800	--	NA	4.6 UJ	4.7 U	NA	3.5 U	NA	4.2 U	NA	2.8 J	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA	3.7 U	NA	4.5 U	NA	3.9 U
Endrin aldehyde	1,800	--	NA	4.6 UJ	4.7 U	NA	3.5 U	NA	4.2 U	NA	4.4 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA	2.9 J	NA	4.5 U	NA	2.1 J
alpha-Chlordane	1,600	--	NA	2.4 UJ	2.4 U	NA	19 J	NA	2.1 U	NA	2.3 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA	1.9 U	NA	2.3 U	NA	2 U
beta-BHC	320	--	NA	2.4 UJ	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA	1.9 U	NA	2.3 U	NA	2 U
gamma-Chlordane	1,600	--	NA	2.4 UJ	2.4 U	NA	7 J	NA	2.1 U	NA	2.3 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA	1.9 U	NA	2.3 U	NA	2 U
Explosives (UG_KG)																							
No Detections																							
Total Metals (MG_KG)																							
Aluminum	7,600	5,487	NA	6,960	3,820	NA	3,320	NA	3,020	NA	3,150	NA	1,800	NA	4,680	NA	5,480	NA	3,010	NA	4,630	NA	3,600
Antimony	3.1	0.447	NA	6.2 UJ	6.3 UJ	NA	4.3 UJ	NA	5 UJ	NA	5.9 UJ	NA	5.8 UJ	NA	7.6 UJ	NA	6.6 UJ	NA	4.9 UJ	NA	5.3 UJ	NA	5.2 UJ
Arsenic	0.39	0.626	NA	4.2	1.3	NA	1.8	NA	1.1	NA	1.2	NA	0.61 J	NA	1.3	NA	1.2	NA	1.1	NA	1.3	NA	1
Barium	540	14.5	NA	13 J	19.8 J	NA	11.5 J	NA	14.8 J	NA	26.6	NA	6.1 J	NA	14.2 J	NA	37.6	NA	14.1 J	NA	16.3 J	NA	32.4
Beryllium	15	0.103	NA	0.036 J	0.062 J	NA	0.36 U	NA	0.41 U	NA	0.015 J	NA	0.48 U	NA	0.033 J	NA	0.12 J	NA	0.027 J	NA	0.033 J	NA	0.045 J
Cadmium	3.7	0.033	NA	0.1 J	0.13 J	NA	0.19 J	NA	0.096 J	NA	0.095 J	NA	0.48 U	NA	0.64 U	NA	0.061 J	NA	0.09 J	NA	0.14 J	NA	0.081 J
Calcium	--	6,360	NA	3,510	1,130	NA	10,500	NA	1,590	NA	22,600	NA	157 J	NA	374 J	NA	1,520	NA	14,400	NA	7,510	NA	4,860
Chromium	22	6.05	NA	10.2	6	NA	4.5	NA	3.9	NA	4.4	NA	1.8	NA	3.4	NA	2.9	NA	3.2	NA	4.9	NA	3.6
Cobalt	140	0.294	NA	0.48 J	0.19 J	NA	0.27 J	NA	0.2 J	NA	0.18 J	NA	0.078 J	NA	0.14 J	NA	0.17 J	NA	0.14 J	NA	0.28 J	NA	0.24 J
Copper	310	4.83	NA	3.8	0.97 J	NA	2.3	NA	2 J	NA	2.3	NA	0.34 J	NA	0.81 J	NA	1.3 J	NA	1.2 J	NA	1.4 J	NA	2.2
Iron	2,300	3,245	NA	3,970	2,230	NA	2,180	NA	2,270	NA	2,450	NA	1,690	NA	2,170	NA	2,000	NA	1,930	NA	2,800	NA	2,570
Lead	400	12.3	NA	7.4	4.7	NA	29.5	NA	20.1	NA	54.4	NA	7.4	NA	7.4	NA	19.3	NA	21.6	NA	33	NA	23.7
Magnesium	--	238	NA	267 J	137 J	NA	298 J	NA	114 J	NA	505	NA	47.3 J	NA	136 J	NA	188 J	NA	283 J	NA	256 J	NA	247 J
Manganese	180	13.7	NA	10	5.8	NA	13.7	NA	8.8	NA	9.7	NA	4.5	NA	7.5	NA	24.6	NA	14.7	NA	15.6	NA	10.5
Mercury	2.3	0.081	NA	0.059 U	0.012 J	NA	0.98	NA	0.056	NA	0.025 J	NA	0.11 U	NA	0.021 J	NA	0.031 J	NA	0.11 U	NA	0.058 U	NA	0.014 J
Nickel	160	1.21	NA	2 J	0.79 J	NA	1.5 J	NA	1.2 J	NA	1.7 J	NA	0.48 J	NA	1.1 J	NA	1.4 J	NA	1 J	NA	1.9 J	NA	1.4 J
Potassium	--	116	NA	211 J	132 J	NA	120 J	NA	116 J	NA	77.8 J	NA	47.4 J	NA	112 J	NA	124 J	NA	62.2 J	NA	130 J	NA	106 J
Selenium	39	0.563	NA	3.6 U	3.6 U	NA	0.28 J	NA	2.9 U	NA	0.41 J	NA	3.4 U	NA	4.5 U	NA	0.42 J	NA	0.32 J	NA	3.1 U	NA	3 U
Silver	39	0.14	NA	1 U	1 U	NA	0.72 UJ	NA	0.82 U	NA	0.98 U	NA	0.96 U	NA	1.3 U	NA	1.1 U	NA	0.82 U	NA	0.88 U	NA	0.86 U
Sodium	--	80.9	NA	34.9 J	23.2 J	NA	36.4 J	NA	11.8 J	NA	49 J	NA	4.7 J	NA	20.9 J	NA	19.7 J	NA	30.4 J	NA	27.4 J	NA	15.8 J
Vanadium	7.8	8.9	NA	10.5	6.1	NA	5.7	NA	6.3	NA	7.1	NA	4 J	NA	5.9 J	NA	5.7	NA	5.2	NA	8.9	NA	6.4
Zinc	2,300	10.8	NA	52	7	NA	28.3	NA	8.2	NA	19.6	NA	1.7 J	NA	2.8 J	NA	8	NA	9.2	NA	27.9	NA	9.5
Wet Chemistry (MG_KG)																							
No Detections																							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	**Region IX PRGs - Residential Soil Adjusted**	**Camp Lejeune Background SS 2X Mean**	09	MR04-H10		MR04-H11	
Sample ID			MR04-H09-07C	MR04-H10-0-1-07C	MR04-H10-07C	MR04-H11-0-1-07C	MR04-H11-07C
Sample Date			09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name							
Volatile Organic Compounds (UG_KG)							
2-Butanone	2,200,000	--	12 UJ	NA	15 U	NA	3.2 J
2-Hexanone	530,000	--	12 UJ	NA	15 U	NA	12 U
Acetone	1,400,000	--	28 J	NA	21 J	NA	32 J
Benzene	640	--	12 UJ	NA	15 U	NA	12 U
Carbon disulfide	36,000	--	12 UJ	NA	15 U	NA	12 U
Ethylbenzene	400,000	--	12 UJ	NA	15 U	NA	12 U
Methyl acetate	2,200,000	--	8 J	NA	15 U	NA	12 U
Methylcyclohexane	260,000	--	12 UJ	NA	15 U	NA	12 U
Toluene	520,000	--	12 UJ	NA	15 U	NA	12 U
Semi-volatile Organic Compounds (UG_KG)							
Acenaphthene	370,000	--	NA	410 U	NA	360 U	NA
Acetophenone	--	--	NA	410 U	NA	360 U	NA
Anthracene	2,200,000	--	NA	410 U	NA	360 U	NA
Benzo(a)anthracene	620	--	NA	410 U	NA	360 U	NA
Benzo(a)pyrene	62	--	NA	410 U	NA	360 U	NA
Benzo(b)fluoranthene	620	--	NA	410 U	NA	360 U	NA
Benzo(g,h,i)perylene	230,000	--	NA	410 U	NA	360 U	NA
Benzo(k)fluoranthene	6,200	--	NA	410 U	NA	360 U	NA
Butylbenzylphthalate	1,200,000	--	NA	410 U	NA	360 U	NA
Carbazole	24,000	--	NA	410 U	NA	360 U	NA
Chrysene	62,000	--	NA	410 U	NA	360 U	NA
Di-n-butylphthalate	610,000	--	NA	49 J	NA	360 U	NA
Dibenz(a,h)anthracene	62	--	NA	410 U	NA	360 U	NA
Dibenzofuran	15,000	--	NA	410 U	NA	360 U	NA
Fluoranthene	230,000	--	NA	410 U	NA	360 U	NA
Fluorene	270,000	--	NA	410 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	410 U	NA	360 U	NA
Phenanthrene	230,000	--	NA	410 U	NA	360 U	NA
Pyrene	230,000	--	NA	410 U	NA	360 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	410 U	NA	360 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)							
4,4'-DDD	2,400	--	NA	2.7 J	NA	3.6 U	NA
4,4'-DDE	1,700	--	NA	65	NA	2.4 J	NA
4,4'-DDT	1,700	--	NA	21	NA	1.8 J	NA
Aldrin	29	--	NA	2.1 U	NA	1.9 U	NA
Aroclor-1260	--	--	NA	41 U	NA	36 U	NA
Dieldrin	30	--	NA	10	NA	3.6 U	NA
Endosulfan I	37,000	--	NA	2.1 U	NA	1.9 U	NA
Endrin	1,800	--	NA	4.1 U	NA	3.6 U	NA
Endrin aldehyde	1,800	--	NA	4.1 U	NA	3.6 U	NA
alpha-Chlordane	1,600	--	NA	2.1 U	NA	1.9 U	NA
beta-BHC	320	--	NA	2.1 U	NA	1.9 U	NA
gamma-Chlordane	1,600	--	NA	2.1 U	NA	1.9 U	NA
Explosives (UG_KG)							
No Detections							
Total Metals (MG_KG)							
Aluminum	7,600	5,487	NA	3,560	NA	5,060	NA
Antimony	3.1	0.447	NA	5.1 UJ	NA	4.6 U	NA
Arsenic	0.39	0.626	NA	1.3	NA	1.6	NA
Barium	540	14.5	NA	12.7 J	NA	16.3 J	NA
Beryllium	15	0.103	NA	0.43 U	NA	0.39 U	NA
Cadmium	3.7	0.033	NA	0.069 J	NA	0.22 J	NA
Calcium	--	6,360	NA	8,810 J	NA	7,610 J	NA
Chromium	22	6.05	NA	4.4	NA	8.1	NA
Cobalt	140	0.294	NA	4.3 U	NA	3.9 U	NA
Copper	310	4.83	NA	2.6	NA	4.2	NA
Iron	2,300	3,245	NA	2,400 J	NA	2,850 J	NA
Lead	400	12.3	NA	21.9	NA	12.2	NA
Magnesium	--	238	NA	297 J	NA	350 J	NA
Manganese	180	13.7	NA	15	NA	15.6	NA
Mercury	2.3	0.081	NA	0.026 J	NA	0.015 J	NA
Nickel	160	1.21	NA	1.3 J	NA	2 J	NA
Potassium	--	116	NA	156 J	NA	179 J	NA
Selenium	39	0.563	NA	0.27 J	NA	0.4 J	NA
Silver	39	0.14	NA	0.15 J	NA	0.78 U	NA
Sodium	--	80.9	NA	33.2 J	NA	48.8 J	NA
Vanadium	7.8	8.9	NA	6.5	NA	8.9	NA
Zinc	2,300	10.8	NA	14.5	NA	32.3	NA
Wet Chemistry (MG_KG)							
No Detections							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-H12		MR04-H13		MR04-H14		MR04-H15		MR04-H16		MR04-H17		MR04-H18		MR04-H19		MR04-H20	
Sample ID			MR04-H12-0-1-07C	MR04-H12-07C	MR04-H13-0-1-07C	MR04-H13-07C	MR04-H14-0-1-07C	MR04-H14-07C	MR04-H15-0-1-07C	MR04-H15-07C	MR04-H16-0-1-07C	MR04-H16-07C	MR04-H17-0-1-07C[1]	MR04-H17-07C[1]	MR04-H18-07C	MR04-H18-0-1-07C	MR04-H19-0-1-07C	MR04-H19-07C	MR04-H20-0-1-07C	MR04-H20-07C
Sample Date			09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
2-Butanone	2,200,000	--	NA	13 U	NA	10 J	NA	10 J	NA	9 J	NA	20 J	NA	9 J	13 U	NA	NA	13 J	NA	12 U
2-Hexanone	530,000	--	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ	NA	12 UJ	NA	13 UJ	13 U	NA	NA	14 U	NA	12 U
Acetone	1,400,000	--	NA	20 J	NA	28 J	NA	44	NA	75 J	NA	160 J	NA	67 J	170 J	NA	NA	94 J	NA	140 J
Benzene	640	--	NA	13 U	NA	5 J	NA	16 UJ	NA	14 UJ	NA	2 J	NA	13 U	13 U	NA	NA	1.2 J	NA	12 U
Carbon disulfide	36,000	--	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ	NA	12 U	NA	13 U	13 U	NA	NA	2.1 J	NA	1 J
Ethylbenzene	400,000	--	NA	13 U	NA	11 J	NA	16 UJ	NA	14 UJ	NA	12 UJ	NA	13 UJ	13 U	NA	NA	14 U	NA	12 U
Methyl acetate	2,200,000	--	NA	13 U	NA	14 U	NA	50	NA	49 J	NA	250 J	NA	200	47	NA	NA	4.8 J	NA	36
Methylcyclohexane	260,000	--	NA	13 U	NA	3 J	NA	16 UJ	NA	14 UJ	NA	12 U	NA	13 U	13 U	NA	NA	14 U	NA	12 U
Toluene	520,000	--	NA	13 U	NA	7 J	NA	16 UJ	NA	14 UJ	NA	3 J	NA	13 UJ	3.3 J	NA	NA	3.4 J	NA	12 U
Semi-volatile Organic Compounds (UG_KG)																				
Acenaphthene	370,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	430 U	NA	NA	410 U	490 UJ	NA	390 U	NA
Acetophenone	--	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	430 U	NA	NA	410 U	490 U	NA	390 U	NA
Anthracene	2,200,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	28 J	NA	NA	410 U	490 U	NA	390 U	NA
Benzo(a)anthracene	620	--	69 J	NA	84 J	NA	56 J	NA	100 J	NA	70 J	NA	370 J	NA	NA	410 U	490 U	NA	390 U	NA
Benzo(a)pyrene	62	--	78 J	NA	61 J	NA	59 J	NA	100 J	NA	83 J	NA	490	NA	NA	410 U	490 U	NA	31 J	NA
Benzo(b)fluoranthene	620	--	110 J	NA	110 J	NA	94 J	NA	160 J	NA	100 J	NA	570	NA	NA	410 U	490 U	NA	50 J	NA
Benzo(g,h,i)perylene	230,000	--	58 J	NA	55 J	NA	75 J	NA	87 J	NA	69 J	NA	400 J	NA	NA	410 U	490 U	NA	390 U	NA
Benzo(k)fluoranthene	6,200	--	57 J	NA	120 J	NA	69 J	NA	96 J	NA	87 J	NA	600	NA	NA	410 U	490 U	NA	22 J	NA
Butylbenzylphthalate	1,200,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	430 U	NA	NA	410 U	490 U	NA	390 U	NA
Carbazole	24,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	38 J	NA	NA	410 U	490 U	NA	390 U	NA
Chrysene	62,000	--	93 J	NA	120 J	NA	86 J	NA	140 J	NA	110 J	NA	590	NA	NA	410 U	490 U	NA	46 J	NA
Di-n-butylphthalate	610,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	39 J	NA	36 J	NA	NA	410 U	490 U	NA	390 U	NA
Dibenz(a,h)anthracene	62	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	100 J	NA	NA	410 U	490 U	NA	390 U	NA
Dibenzofuran	15,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	430 U	NA	NA	410 U	490 U	NA	390 U	NA
Fluoranthene	230,000	--	160 J	NA	240 J	NA	170 J	NA	310 J	NA	230 J	NA	1,000	NA	NA	24 J	490 U	NA	76 J	NA
Fluorene	270,000	--	440 U	NA	430 U	NA	430 U	NA	370 U	NA	420 U	NA	430 U	NA	NA	410 U	490 U	NA	390 U	NA
Indeno(1,2,3-cd)pyrene	620	--	51 J	NA	51 J	NA	61 J	NA	75 J	NA	54 J	NA	330 J	NA	NA	410 U	490 U	NA	390 U	NA
Phenanthrene	230,000	--	53 J	NA	97 J	NA	42 J	NA	110 J	NA	83 J	NA	230 J	NA	NA	410 U	490 U	NA	28 J	NA
Pyrene	230,000	--	140 J	NA	200 J	NA	110 J	NA	190 J	NA	130 J	NA	640	NA	NA	410 U	490 UJ	NA	54 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	47 J	NA	46 J	NA	43 J	NA	52 J	NA	84 J	NA	150 J	NA	NA	410	490 U	NA	390 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	2,400	--	1.7 J	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA	4.3	NA	4.3 U	NA	NA	4.2 U	4.8 U	NA	3.9 UJ	NA
4,4'-DDE	1,700	--	12	NA	3.4 J	NA	4.4 J	NA	8.3	NA	250	NA	4.5 J	NA	NA	0.83 J	4.8 U	NA	3.9 UJ	NA
4,4'-DDT	1,700	--	9.9	NA	4.3 U	NA	9.2	NA	12	NA	48	NA	13	NA	NA	1.2 J	4.8 U	NA	3.9 UJ	NA
Aldrin	29	--	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	NA	2.1 U	2.5 U	NA	2 UJ	NA
Aroclor-1260	--	--	44 U	NA	43 U	NA	42 J	NA	37 U	NA	42 U	NA	43 U	NA	NA	42 U	48 U	NA	39 UJ	NA
Dieldrin	30	--	0.92 J	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA	4.2 U	NA	4.3 U	NA	NA	4.2 U	4.8 U	NA	3.9 UJ	NA
Endosulfan I	37,000	--	0.61 J	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	NA	2.1 U	2.5 U	NA	2 UJ	NA
Endrin	1,800	--	4.4 U	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA	4.2 U	NA	4.3 U	NA	NA	4.2 U	4.8 U	NA	3.9 UJ	NA
Endrin aldehyde	1,800	--	4.4 U	NA	4.3 U	NA	3.1 J	NA	3.7 U	NA	4.2 U	NA	4.3 U	NA	NA	4.2 U	4.8 U	NA	3.9 UJ	NA
alpha-Chlordane	1,600	--	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	2.2 U	NA	1.8 J	NA	NA	2.1 U	2.5 U	NA	2 UJ	NA
beta-BHC	320	--	2.3 U	NA	1.2 J	NA	2.2 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	NA	2.1 U	2.5 U	NA	2 UJ	NA
gamma-Chlordane	1,600	--	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	NA	2.1 U	2.5 U	NA	2 UJ	NA
Explosives (UG_KG)																				
No Detections																				
Total Metals (MG_KG)																				
Aluminum	7,600	5,487	4,830	NA	3,540	NA	3,900	NA	3,190	NA	2,800 J	NA	3,680 J	NA	NA	3,990	4,690	NA	4,590	NA
Antimony	3.1	0.447	5.5 UJ	NA	5.9 UJ	NA	5.8 UJ	NA	5 UJ	NA	5.6 UJ	NA	5.9 UJ	NA	NA	5.7 UJ	6.7 UJ	NA	5.4 UJ	NA
Arsenic	0.39	0.626	2	NA	2.4	NA	1.9	NA	1.7	NA	1.1	NA	1.8	NA	NA	1.7	1.6	NA	2.5	NA
Barium	540	14.5	16.3 J	NA	20.3	NA	17.7 J	NA	16.6 J	NA	12.2 J	NA	11.1 J	NA	NA	22.8 J	17.9 J	NA	13.8 J	NA
Beryllium	15	0.103	0.46 U	NA	0.078 J	NA	0.046 J	NA	0.04 J	NA	0.032 J	NA	0.039 J	NA	NA	0.052 J	0.054 J	NA	0.072 J	NA
Cadmium	3.7	0.033	0.16 J	NA	0.28 J	NA	0.21 J	NA	0.11 J	NA	0.094 J	NA	0.13 J	NA	NA	0.18 J	0.16 J	NA	0.24 J	NA
Calcium	--	6,360	18,200 J	NA	52,800	NA	26,400	NA	15,600	NA	15,100 J	NA	81,500 J	NA	NA	7,990	5,740	NA	24,500	NA
Chromium	22	6.05	8	NA	10.8	NA	6.4	NA	4.6	NA	3.9 J	NA	6.1 J	NA	NA	6.4	5.9	NA	9.3	NA
Cobalt	140	0.294	4.6 U	NA	1.1 J	NA	0.44 J	NA	0.23 J	NA	0.18 J	NA	0.21 J	NA	NA	0.64 J	0.41 J	NA	0.84 J	NA
Copper	310	4.83	2.8	NA	1.8 J	NA	3.1	NA	2.8	NA	2.2 J	NA	2.4 J	NA	NA	2.2 J	1.5 J	NA	2.4	NA
Iron	2,300	3,245	2,550 J	NA	2,500	NA	2,690	NA	3,120	NA	2,070 J	NA	2,330 J	NA	NA	2,530	3,350	NA	4,740	NA
Lead	400	12.3	13	NA	9.1	NA	17.6	NA	15.8	NA	32.8	NA	12.3	NA	NA	14.6	9	NA	15	NA
Magnesium	--	238	565	NA	901	NA	592	NA	330 J	NA	361 J	NA	1,230	NA	NA	259 J	257 J	NA	508	NA
Manganese	180	13.7	16.7	NA	16.3	NA	15.7	NA	14.5	NA	10.7	NA	36.8	NA	NA	11.9	14.2	NA	15.4	NA
Mercury	2.3	0.081	0.023 J	NA	0.11 U	NA	0.042 J	NA	0.015 J	NA	0.015 J	NA	0.1 U	NA	NA	0.051 U	0.064 U	NA	0.02 J	NA
Nickel	160	1.21	2.5 J	NA	2.5 J	NA	1.9 J	NA	1.2 J	NA	1.2 J	NA	1.8 J	NA	NA	1.7 J	1.3 J	NA	2.3 J	NA
Potassium	--	116	191 J	NA	213 J	NA	170 J	NA	143 J	NA	106 J	NA	169 J	NA	NA	143 J	167 J	NA	202 J	NA
Selenium	39	0.563	0.31 J	NA	1.3 J	NA	0.51 J	NA	0.47 J	NA	0.3 J	NA	1.4 J	NA	NA	0.33 J	0.39 J	NA	0.97 J	NA
Silver	39	0.14	0.15 J	NA	0.98 U	NA	0.97 U	NA	0.84 U	NA	0.93 U	NA	0.98 U	NA	NA	0.95 U	1.1 U	NA	0.91 U	NA
Sodium	--	80.9	52.9 J	NA	117 J	NA	51.8 J	NA	17.8 J	NA	32.7 J	NA	97.5 J	NA	NA	42.6 J	44.7 J	NA	75.7 J	NA
Vanadium	7.8	8.9	8.1	NA	9.3	NA	7.5	NA	6.1	NA	5.8	NA	7.7	NA	NA	6.5	7.2	NA	9.6	NA
Zinc	2,300	10.8	65.1	NA	28.9	NA	223	NA	51	NA	27.7	NA	68	NA	NA	77.4	33.9	NA	41.5	NA
Wet Chemistry (MG_KG)																				
No Detections																				

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-H21		MR04-H22		MR04-H23		MR04-I01		MR04-I02		MR04-I03		MR04-I04		MR04-I05		MR04-I06		MR04-I07		MR04-I08		MR04-I09	
Sample ID			MR04-H21-0-1-07C	MR04-H21-07C	MR04-H22-0-1-07C[1]	MR04-H22-07C[1]	MR04-H23-0-1-07C	MR04-H23-07C	MR04-I01-0-1-07D[1]	MR04-I01-07D[1]	MR04-I02-0-1-07C	MR04-I02-07C	MR04-I03-0-1-07D	MR04-I03-07D	MR04-I04-0-1-07D	MR04-I04-07D	MR04-I05-0-1-07D	MR04-I05-07D	MR04-I06-0-1-07D	MR04-I06-07D	MR04-I07-0-1-07D	MR04-I07-07D	MR04-I08-0-1-07D	MR04-I08-07D	MR04-I09-0-1-07D	MR04-I09-07D
Sample Date			09/08/07	09/08/07	09/11/07	09/11/07	09/11/07	09/11/07	10/19/07	10/19/07	09/08/07	09/08/07	10/19/07	10/19/07	10/19/07	10/19/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07
Chemical Name																										
Volatile Organic Compounds (UG_KG)																										
2-Butanone	2,200,000	--	NA	5.2 J	NA	22 J	NA	5.5 J	NA	8 J	NA	34	NA	5.7 J	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	17 J	NA	15 U
Acetone	1,400,000	--	NA	55 J	NA	330 J	NA	72 J	NA	120	NA	730 J	NA	94	NA	27	NA	44 J	NA	53 J	NA	7.6 J	NA	430 J	NA	29 J
Benzene	640	--	NA	6.4 J	NA	11 U	NA	12 U	NA	11 U	NA	16 U	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Chloroform	220	--	NA	15 U	NA	11 U	NA	12 U	NA	11 U	NA	16 U	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Ethylbenzene	400,000	--	NA	15 U	NA	11 U	NA	12 U	NA	11 U	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Methyl acetate	2,200,000	--	NA	15	NA	2.4 J	NA	5.1 J	NA	11 U	NA	16 U	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Methylcyclohexane	260,000	--	NA	15 U	NA	11 U	NA	12 U	NA	11 U	NA	16 U	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Styrene	1,700,000	--	NA	15 U	NA	8.5 J	NA	12 U	NA	11 U	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Toluene	520,000	--	NA	4.9 J	NA	0.83 J	NA	12 U	NA	11 U	NA	5.4 J	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Trichloroethene	53	--	NA	15 U	NA	11 U	NA	12 U	NA	11 U	NA	16 U	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Xylene, total	27,000	--	NA	15 U	NA	11 U	NA	12 U	NA	11 U	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U	NA	17 U	NA	9.6 U	NA	15 U	NA	15 U
Semi-volatile Organic Compounds (UG_KG)																										
3	31,000	--	480 U	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Acetophenone	--	--	480 U	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	22 J	NA	25 J	NA
Anthracene	2,200,000	--	35 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Benzaldehyde	610,000	--	480 U	NA	420 UJ	NA	370 U	NA	350 UJ	NA	430 U	NA	420 UJ	NA	210 J	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Benzo(a)anthracene	620	--	190 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	18 J	NA	350 U	NA	31 J	NA	29 J	NA
Benzo(a)pyrene	62	--	250 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	19 J	NA	350 U	NA	35 J	NA	34 J	NA
Benzo(b)fluoranthene	620	--	380 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	26 J	NA	350 U	NA	47 J	NA	54 J	NA
Benzo(g,h,i)perylene	230,000	--	230 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	25 J	NA	27 J	NA
Benzo(k)fluoranthene	6,200	--	210 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	23 J	NA	350 U	NA	30 J	NA	30 J	NA
Butylbenzylphthalate	1,200,000	--	64 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Caprolactam	3,100,000	--	480 U	NA	420 U	NA	370 U	NA	100 J	NA	430 U	NA	340 J	NA	270 J	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Carbazole	24,000	--	480 U	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Chrysene	62,000	--	310 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	26 J	NA	350 U	NA	40 J	NA	40 J	NA
Di-n-butylphthalate	610,000	--	480 U	NA	23 J	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Dibenz(a,h)anthracene	62	--	480 U	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Fluoranthene	230,000	--	530	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	40 J	NA	350 U	NA	78 J	NA	85 J	NA
Indeno(1,2,3-cd)pyrene	620	--	190 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	23 J	NA
Phenanthrene	230,000	--	150 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	25 J	NA
Pyrene	230,000	--	420 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	420 U	NA	430 U	NA	360 U	NA	33 J	NA	350 U	NA	56 J	NA	58 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	76 J	NA	420 U	NA	370 U	NA	350 U	NA	430 U	NA	84 J	NA	430 U	NA	360 U	NA	390 U	NA	350 U	NA	460 U	NA	470 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																										
4,4'-DDD	2,400	--	0.6 J	NA	4.2 U	NA	0.45 J	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	25	NA	13	NA	4.6 U	NA	4.7 U	NA
4,4'-DDE	1,700	--	2.4 J	NA	1.2 J	NA	9.2 J	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	13	NA	12	NA	250	NA	220	NA	69	NA	18	NA
4,4'-DDT	1,700	--	7.8	NA	3.5 J	NA	8.9 J	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	5.5 J	NA	6.4	NA	100	NA	140	NA	27	NA	8.6	NA
Aroclor-1260	--	--	49 U	NA	42 U	NA	38 UJ	NA	35 U	NA	43 U	NA	42 U	NA	26 J	NA	36 U	NA	140 J	NA	36 U	NA	46 U	NA	47 U	NA
Dieldrin	30	--	4.9 U	NA	0.4 J	NA	1.4 J	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	2.5 J	NA	9.2	NA	9.9	NA	20	NA	4.6 U	NA	4.7 U	NA
Endosulfan sulfate	37,000	--	4.9 U	NA	4.2 U	NA	3.8 UJ	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	3.9 U	NA	3.6 U	NA	4.6 U	NA	4.7 U	NA
Endrin	1,800	--	4.9 U	NA	4.2 U	NA	0.65 J	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	3.9 U	NA	3.6 U	NA	4.6 U	NA	4.7 U	NA
Endrin aldehyde	1,800	--	4.9 U	NA	4.2 U	NA	3.8 UJ	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	3.9 U	NA	3.6 U	NA	4.6 U	NA	4.7 U	NA
Endrin ketone	1,800	--	4.9 U	NA	4.2 U	NA	3.8 UJ	NA	3.5 U	NA	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	3.9 U	NA	1.8 J	NA	4.6 U	NA	4.7 U	NA
Heptachlor epoxide	53	--	2.5 U	NA	2.1 U	NA	1.9 UJ	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.2 J	NA	1.8 U	NA	2.4 U	NA	2.4 U	NA
alpha-Chlordane	1,600	--	2.5 U	NA	2.1 U	NA	1.9 UJ	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	26	NA	1.8 U	NA	2.4 U	NA	2.4 U	NA
gamma-Chlordane	1,600	--	2.5 U	NA	2.1 U	NA	1.9 UJ	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	17	NA	1.8 U	NA	2.4 U	NA	2.4 U	NA
Explosives (UG_KG)																										
No Detections																										
Total Metals (MG_KG)																										
Aluminum	7,600	5,487	5,710	NA	6,060	NA	5,170	NA	2,320	NA	4,120	NA	5,740	NA	5,860	NA	3,030	NA	4,780	NA	3,970	NA	3,380	NA	3,030	NA
Antimony	3.1	0.447	6.5 UJ	NA	5.7 UJ	NA	0.25 J	NA	4.8 UJ	NA	5.7 UJ	NA	5.8 UJ	NA	6 UJ	NA	0.53 J	NA	5.2 UJ	NA	4.8 UJ	NA	6.3 UJ	NA	6.1 UJ	NA
Arsenic	0.39	0.626	2.4	NA	2	NA	2.2	NA	0.86	NA	1.1	NA	1.2	NA	1.3	NA	0.85	NA	1.6	NA	1.1	NA	0.73 J	NA	0.53 J	NA
Barium	540	14.5	16.5 J	NA	18 J	NA	17.3 J	NA	11.4 J	NA	9.1 J	NA	20.7	NA	20.2	NA	11.3 J	NA	19	NA	51	NA	18.5 J	NA	38.5	NA
Beryllium	15	0.103	0.05 J	NA	0.046 J	NA	0.058 J	NA	0.4 U	NA	0.48 U	NA	0.094 J	NA	0.081 J	NA	0.045 J	NA	0.058 J	NA	0.056 J	NA	0.027 J	NA	0.019 J	NA
Cadmium	3.7	0.033	0.21 J	NA	0.072 J	NA	0.085 J	NA	0.048 J	NA	0.046 J	NA	0.054 J	NA	0.088 J	NA	0.4 U	NA	0.44 U	NA	0.4 U	NA	0.52 U	NA	0.51 U	NA
Calcium	--	6,360	37,000	NA	1,160 J	NA	3,020 J	NA	203 J	NA	108 J	NA	180 J	NA	13,800	NA	509	NA	49,600	NA	34,000	NA	2,530	NA	1,490	NA
Chromium	22	6.05	9.1	NA	7.7	NA	6.7	NA	2.6	NA	3.6	NA	4	NA	6	NA	2.4	NA	8.9	NA	6.1	NA	5.2	NA	3.6	NA
Cobalt	140	0.294	0.38 J	NA	0.33 J	NA	0.3 J	NA	0.12 J	NA	0.15 J	NA	0.2 J	NA	0.27 J	NA	0.1 J	NA	0.3 J	NA	0.26 J	NA	0.18 J	NA	0.2	NA
Copper	310	4.83	3.2	NA	4.1	NA	2.4	NA	0.63 J	NA	0.94 J	NA	0.95 J	NA	1.3 J	NA	0.67 J	NA	5.4	NA	2 U	NA	2.6 U	NA	6.7	NA
Cyanide	120	--	3.2 U	NA	3 U	NA	2.6 U	NA	2.5 U	NA	3.3 U	NA	3.2 U	NA	3.1 U	NA	2.7 U	NA	2.7 U	NA	2.7 U	NA	3.5 U	NA	2.9 U	NA
Iron	2,300	3,245	4,100	NA	4,630	NA	4,240	NA	2,040	NA	2,270 J	NA	2,350	NA	2,810	NA	1,820	NA	3,960	NA	2,780	NA	2,560	NA	1,730	NA
Lead	400	12.3	28.5	NA	18.2	NA	17.2	NA	9.7 J	NA	5.6	NA	9.5 J	NA	13.3 J	NA	8.8	NA	60.1 J	NA	17.9 J	NA	18.6 J	NA	29.2 J	NA
Magnesium	--	238	1,780	NA	204 J	NA	288 J	NA	82.3 J	NA	123 J	NA	171 J	NA	433 J	NA	94.2 J	NA	908	NA	674	NA	159 J	NA	122 J	NA
Manganese	180	13.7	18.7	NA	11.7 J	NA	13.3 J	NA	13.5	NA	11.9 J	NA	14	NA	16.9	NA	4.9	NA	29.5	NA	18.6	NA	12.6	NA	12.1	NA
Mercury	2.3	0.081	0.02 J	NA	0.22 U	NA	0.032 J	NA	0.025 J	NA	0.1 U	NA	0.054 J	NA	0.042 J	NA	0.018 J	NA	0.38 U	NA	0.34 U	NA	0.41 U	NA	0.44 U	NA
Nickel	160	1.21	2.3 J	NA	1.5 J	NA	1.3 J	NA	0.71 J	NA	1.1 J	NA	1.3 J	NA	1.6 J	NA	3.2 U	NA	2.6 J	NA	1.8 J	NA	4.2 U	NA	4.1 U	NA
Potassium	--	116	192 J	NA	232 J	NA	272 J	NA	94.5 J	NA	117 J	NA	144 J	NA	202 J	NA	67.7 J	NA	256 J	NA	205 J	NA	153 J	NA	114 J	NA
Selenium	39	0.563	0.68 J	NA	3.3 U	NA	0.28 J	NA	2.8 U	NA	3.3 U	NA	3.4 U	NA	3.5 U	NA	0.28 J	NA	3 U	NA	2.8 U	NA	3.7 U	NA	3.6 U	NA
Silver	39	0.14	1.1 U	NA	0.94 U	NA	0.86 U	NA	0.8 U	NA	0.95 U	NA	0.97 U	NA	1 U	NA	0.8 U	NA	0.87 U	NA	0.79 U	NA	1 U	NA	1 U	NA
Sodium	--	80.9	76.7 J	NA	29.6 J	NA	33.8 J	NA	9.3 J	NA	11.9 J	NA	16.1 J	NA	37.7 J	NA	397 U	NA	75.3 J	NA	66.6 J	NA	24 J	NA	21.3 J	NA
Vanadium	7.8	8.9	11.3	NA	10.7	NA	10.2	NA	5.7	NA	6	NA	6.6	NA	8.7	NA	4.9	NA	11.6	NA	9.1	NA	7.1	NA	5.5	NA
Zinc	2,300	10.8	45.7	NA	17.9	NA	71.4	NA	2.2 J	NA	2.9 J	NA	3.9 J	NA	7.2	NA	3.8 J	NA	33.4	NA	21.9	NA	9.3	NA	12.9	NA
Wet Chemistry (MG_KG)																										
No Detections																										

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-I10		MR04-I11		MR04-I12		MR04-I13		MR04-I14		MR04-I15		MR04-I16		MR04-I17		MR04-I18		MR04-I19		MR04-I20		MR04-I21		MR04-J01	
Sample ID			MR04-I10-0-1-07D	MR04-I10-07D	MR04-I11-0-1-07C	MR04-I11-07C	MR04-I12-0-1-07C	MR04-I12-07C	MR04-I13-0-1-07C[1]	MR04-I13-07C[1]	MR04-I14-0-1-07C	MR04-I14-07C	MR04-I15-0-1-07C	MR04-I15-07C	MR04-I16-0-1-07C	MR04-I16-07C	MR04-I17-0-1-07C	MR04-I17-07C	MR04-I18-0-1-07C	MR04-I18-07C	MR04-I19-0-1-07C	MR04-I19-07C	MR04-I20-0-1-07C	MR04-I20-07C	MR04-I21-0-1-07C	MR04-I21-07C	MR04-J01-0-1-07D[1]	MR04-J01-07D[1]
Sample Date			10/18/07	10/18/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	10/18/07	10/18/07
Chemical Name																												
Volatile Organic Compounds (UG_KG)																												
2-Butanone	2,200,000	--	NA	13 U	NA	31	NA	12 U	NA	15 U	NA	17	NA	6.5 J	NA	12 U	NA	15 U	NA	11 U	NA	49	NA	12 U	NA	28 U	NA	31 J
Acetone	1,400,000	--	NA	13 UJ	NA	720 J	NA	12 U	NA	15 U	NA	48 J	NA	52 J	NA	14 J	NA	9.1 J	NA	11 U	NA	920 J	NA	17 J	NA	790 J	NA	490 J
Benzene	640	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Chloroform	220	--	NA	13 U	NA	4.2 J	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Ethylbenzene	400,000	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Methyl acetate	2,200,000	--	NA	13 U	NA	13 J	NA	12 U	NA	3.4 J	NA	4.1 J	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	3.2 J	NA	28 U	NA	13 U
Methylcyclohexane	260,000	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Styrene	1,700,000	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	24 J	NA	13 U
Toluene	520,000	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Trichloroethene	53	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Xylene, total	27,000	--	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	NA	15 U	NA	12 U	NA	15 U	NA	11 U	NA	17 U	NA	12 U	NA	28 U	NA	13 U
Semi-volatile Organic Compounds (UG_KG)																												
3	31,000	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	30 J	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Acetophenone	--	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	26 J	NA	400 U	NA
Anthracene	2,200,000	--	24 J	NA	520 U	NA	34 J	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Benzaldehyde	610,000	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Benzo(a)anthracene	620	--	88 J	NA	520 U	NA	310 J	NA	450 U	NA	44 J	NA	470 U	NA	140 J	NA	460 U	NA	46 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Benzo(a)pyrene	62	--	80 J	NA	520 U	NA	330 J	NA	450 U	NA	55 J	NA	470 U	NA	160 J	NA	30 J	NA	58 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Benzo(b)fluoranthene	620	--	98 J	NA	520 U	NA	470	NA	25 J	NA	90 J	NA	26 J	NA	230 J	NA	46 J	NA	84 J	NA	490 U	NA	380 U	NA	41 J	NA	400 U	NA
Benzo(g,h,i)perylene	230,000	--	48 J	NA	520 U	NA	220 J	NA	450 U	NA	71 J	NA	470 U	NA	110 J	NA	460 U	NA	48 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Benzo(k)fluoranthene	6,200	--	58 J	NA	520 U	NA	190 J	NA	450 U	NA	47 J	NA	470 U	NA	130 J	NA	460 U	NA	41 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Butylbenzylphthalate	1,200,000	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	41 J	NA
Caprolactam	3,100,000	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Carbazole	24,000	--	430 U	NA	520 U	NA	48 J	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Chrysene	62,000	--	94 J	NA	520 U	NA	420	NA	450 U	NA	73 J	NA	470 U	NA	190 J	NA	41 J	NA	70 J	NA	490 U	NA	380 U	NA	26 J	NA	400 U	NA
Di-n-butylphthalate	610,000	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	56 J	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Dibenz(a,h)anthracene	62	--	430 U	NA	520 U	NA	390 U	NA	450 U	NA	410 U	NA	470 U	NA	370 U	NA	460 U	NA	360 U	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Fluoranthene	230,000	--	220 J	NA	520 U	NA	800	NA	26 J	NA	130 J	NA	38 J	NA	310 J	NA	71 J	NA	110 J	NA	490 U	NA	380 U	NA	33 J	NA	400 U	NA
Indeno(1,2,3-cd)pyrene	620	--	45 J	NA	520 U	NA	230 J	NA	450 U	NA	48 J	NA	470 U	NA	100 J	NA	460 U	NA	44 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Phenanthrene	230,000	--	97 J	NA	520 U	NA	330 J	NA	450 U	NA	46 J	NA	470 U	NA	100 J	NA	460 U	NA	32 J	NA	490 U	NA	380 U	NA	470 U	NA	400 U	NA
Pyrene	230,000	--	150 J	NA	520 U	NA	690	NA	24 J	NA	99 J	NA	29 J	NA	260 J	NA	54 J	NA	95 J	NA	490 U	NA	380 U	NA	32 J	NA	400 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	430 U	NA	520 U	NA	160 J	NA	450 U	NA	42 J	NA	470 U	NA	76 J	NA	460 U	NA	50 J	NA	490 U	NA	39 J	NA	470 U	NA	190 J	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																												
4,4'-DDD	2,400	--	8.8	NA	1.3 J	NA	0.72 J	NA	4.5 UJ	NA	4.1 U	NA	3.1 J	NA	3.7 U	NA	4.5 U	NA	0.54 J	NA	0.79 J	NA	1.3 J	NA	1.2 J	NA	4 U	NA
4,4'-DDE	1,700	--	240	NA	5.3	NA	7.5	NA	5.4	NA	1.5 J	NA	33	NA	9.6 J	NA	3.4 J	NA	1.8 J	NA	8.3	NA	28	NA	24	NA	4 U	NA
4,4'-DDT	1,700	--	53	NA	3.6 J	NA	4 J	NA	16	NA	0.88 J	NA	42	NA	5.1 J	NA	4.5 J	NA	2.1 J	NA	8.5	NA	7.6 J	NA	16	NA	4 U	NA
Aroclor-1260	--	--	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	41 U	NA	46 U	NA	37 U	NA	45 U	NA	36 U	NA	50 U	NA	37 U	NA	47 U	NA	40 U	NA
Dieldrin	30	--	3.1 J	NA	0.88 J	NA	1.2 J	NA	0.47 J	NA	4.1 U	NA	4.6 U	NA	0.72 J	NA	0.93 J	NA	2 J	NA	0.74 J	NA	1.1 J	NA	3.4 J	NA	4 U	NA
Endosulfan sulfate	37,000	--	4.3 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.1 U	NA	4.6 U	NA	3.7 U	NA	4.5 U	NA	3.6 U	NA	5 U	NA	3.7 U	NA	4.7 U	NA	4 U	NA
Endrin	1,800	--	4.3 U	NA	5.2 U	NA	3.8 UJ	NA	4.5 UJ	NA	4.1 U	NA	9.9	NA	3.7 U	NA	4.5 U	NA	3.6 U	NA	5 U	NA	3.7 U	NA	4.7 U	NA	4 U	NA
Endrin aldehyde	1,800	--	8.2 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.1 U	NA	4.6 U	NA	3.7 U	NA	4.5 U	NA	3.6 U	NA	5 U	NA	3.7 U	NA	4.7 U	NA	5 U	NA
Endrin ketone	1,800	--	4.3 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.1 U	NA	4.6 U	NA	3.7 U	NA	4.5 U	NA	3.6 U	NA	5 U	NA	3.7 U	NA	4.7 U	NA	4 U	NA
Heptachlor epoxide	53	--	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.1 U	NA	2.4 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	2.6 U	NA	1.9 U	NA	2.4 U	NA	2 U	NA
alpha-Chlordane	1,600	--	2.2 U	NA	2.7 U	NA	2 U	NA	17	NA	2.1 U	NA	2.4 U	NA	1.9 U	NA	2.3 U	NA	8.7 J	NA	2.6 U	NA	1.9 U	NA	2.4 U	NA	2 U	NA
gamma-Chlordane	1,600	--	2.2 U	NA	2.7 U	NA	2 U	NA	4.7 J	NA	2.1 U	NA	2.4 U	NA	1.9 U	NA	2.3 U	NA	7.8 J	NA	2.6 U	NA	1.9 U	NA	2.4 U	NA	2 U	NA
Explosives (UG_KG)																												
No Detections																												
Total Metals (MG_KG)																												
Aluminum	7,600	5,487	3,730	NA	5,280	NA	4,150	NA	4,710	NA	2,640	NA	3,570	NA	3,430	NA	3,210	NA	4,800	NA	6,220	NA	6,740	NA	4,290	NA	4,490	NA
Antimony	3.1	0.447	5.9 UJ	NA	6.4 U	NA	5 UJ	NA	5.9 UJ	NA	5 UJ	NA	5.5 UJ	NA	4.3 UJ	NA	5.7 U	NA	4.3 UJ	NA	5.7 UJ	NA	4.8 UJ	NA	5.7 UJ	NA	5.4 UJ	NA
Arsenic	0.39	0.626	1.3	NA	1.6	NA	2.2	NA	1.6	NA	1.7	NA	1.3	NA	2.8	NA	2.2	NA	1.9	NA	2.9	NA	1.9	NA	1.9	NA	1.2	NA
Barium	540	14.5	19.6	NA	24 J	NA	89.7 J	NA	13.4 J	NA	16.3 J	NA	9.2 J	NA	10.9 J	NA	14 J	NA	16.2	NA	13.4 J	NA	13.2 J	NA	16.7 J	NA	15.3 J	NA
Beryllium	15	0.103	0.077 J	NA	0.53 U	NA	0.42 U	NA	0.035 J	NA	0.15 J	NA	0.46 U	NA	0.035 J	NA	0.48 U	NA	0.05 J	NA	0.036 J	NA	0.4 U	NA	0.043 J	NA	0.092 J	NA
Cadmium	3.7	0.033	0.49 U	NA	0.14 J	NA	0.21 J	NA	0.19 J	NA	0.44	NA	0.1 J	NA	0.22 J	NA	0.22 J	NA	0.16 J	NA	0.12 J	NA	0.067 J	NA	0.081 J	NA	0.45 U	NA
Calcium	--	6,360	51,300	NA	2,440 J	NA	34,200 J	NA	8,520	NA	22,100	NA	46,000	NA	42,800	NA	123,000 J	NA	7,060	NA	1,920	NA	2,420 J	NA	10,500	NA	359 J	NA
Chromium	22	6.05	10	NA	6.3	NA	7.1	NA	7.5	NA	15.4	NA	5	NA	6.4	NA	8.5	NA	6	NA	6.9	NA	8	NA	5.5	NA	4.1	NA
Cobalt	140	0.294	0.95 J	NA	5.3 U	NA	4.2 U	NA	4.9 U	NA	1.5 J	NA	0.2 J	NA	0.36 J	NA	4.8 U	NA	0.38 J	NA	0.44 J	NA	4 U	NA	0.45 J	NA	0.18 J	NA
Copper	310	4.83	2.6	NA	11.2	NA	7.4	NA	1.8 J	NA	1.2 J	NA	7.2	NA	3.6	NA	2.2 J	NA	3.1	NA	2.5	NA	2.3	NA	1.8 J	NA	0.96 J	NA
Cyanide	120	--	3 U	NA	3.8 U	NA	2.7 U	NA	3.4 U	NA	3 U	NA	3.4 U	NA	2.7 U	NA	0.21 U	NA	2.5 U	NA	3.3 U	NA	2.9 U	NA	3.5 U	NA	3 U	NA
Iron	2,300	3,245	2,630	NA	3,420 J	NA	3,140 J	NA	2,570 J	NA	2,010	NA	2,580	NA	2,420	NA	2,570 J	NA	3,340	NA	3,880	NA	4,650 J	NA	3,210	NA	2,640	NA
Lead	400	12.3	21.7 J	NA	31.1	NA	19.3	NA	8.5	NA	4.3	NA	7.7	NA	22.7	NA	7	NA	21.4	NA	13.2	NA	19.4	NA	18.4	NA	8.5	NA
Magnesium	--	238	977	NA	288 J	NA	735	NA	292 J	NA	465	NA	773	NA	766	NA	822	NA	288 J	NA	201 J	NA	299 J	NA	386 J	NA	120 J	NA
Manganese	180	13.7	21.9	NA	23.7	NA	18.4	NA	11.5	NA	11.5	NA	11.2	NA	17.2	NA	22.6	NA	23	NA	13.1	NA	12.5	NA	13.5	NA	11.6	NA
Mercury	2.3	0.081	0.4 U	NA	0.025 J	NA	0.021 J	NA	0.12 U	NA	0.05 U	NA	0.053 U	NA	0.047 U	NA	0.13 U	NA	0.044 U	NA	0.071 U	NA	0.021 J	NA	0.053 J	NA	0.03 J	NA
Nickel	160	1.21	3.9 U	NA	3.9 J	NA	2 J	NA	1.9 J	NA	2.2 J	NA	1.3 J	NA	1.9 J	NA	1.8 J	NA	1.9 J	NA	1.8 J	NA	1.7 J	NA	1.9 J	NA	3.6 U	NA
Potassium	--	116	235 J	NA	176 J	NA	219 J	NA	178 J	NA	232 J	NA	114 J	NA	171 J	NA	184 J	NA	161 J	NA	166 J	NA	223 J	NA	198 J	NA	120 J	NA
Selenium	39	0.563	0.65 J	NA	3.7 U	NA	0.32 J	NA	0.31 J	NA	1.3 J	NA	0.84 J	NA	0.86 J	NA	0.54 J	NA	0.22 J	NA	3.3 U	NA	2.8 U	NA	0.31 J	NA	0.27 J	NA
Silver	39	0.14	0.98 U	NA	1.1 U	NA	0.83 U	NA	0.98 U	NA	0.84 U	NA	0.91 U	NA	0.72 U	NA	0.18 J	NA	0.72 U	NA	0.96 U	NA	0.8 U	NA	0.95 U	NA	0.9 U	NA
Sodium	--	80.9	93.2 J	NA	22 J	NA	88.2 J	NA	46.5 J	NA	92.4 J	NA	66.3 J	NA	58.7 J	NA	138 J	NA	33.5 J	NA	18.2 J	NA	23.6 J	NA	59.4 J	NA	451 U	NA
Vanadium	7.8	8.9	10.9	NA	6.8	NA	8.1	NA	8.7	NA	13.4	NA	7.1	NA	7.8	NA	7.3	NA	9.9	NA	10.4	NA	11.7	NA	9	NA	7	NA
Zinc	2,300	10.8	65.1	NA	48.5	NA	61.5	NA	25.6	NA	25.4	NA	14.7	NA	101	NA	23.8	NA	36	NA	81.7	NA	15.5	NA	63.4	NA	2.9 J	NA
Wet Chemistry (MG_KG)																												
No Detections																												

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-J02		MR04-J03		MR04-J04		MR04-J05		MR04-J06		MR04-J07		MR04-J08		MR04-J09		MR04-J10		MR04-J11		MR04-J12		MR04-J13	
Sample ID			MR04-J02-0-1-07D[1]	MR04-J02-07D[1]	MR04-J03-0-1-07D	MR04-J03-07D	MR04-J04-0-1-07D	MR04-J04-07D	MR04-J05-0-1-07D	MR04-J05-07D	MR04-J06-0-1-07D	MR04-J06-07D	MR04-J07-0-1-07D	MR04-J07-07D	MR04-J08-0-1-07D[1]	MR04-J08-07D	MR04-J09-0-1-07D	MR04-J09-07D	MR04-J10-0-1-07C[1]	MR04-J10-07C[1]	MR04-J11-0-1-07C	MR04-J11-07C	MR04-J12-0-1-07C	MR04-J12-07C	MR04-J13-0-1-07C[1]	MR04-J13-07C[1]
Sample Date			10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	09/08/07	09/08/07	09/06/07	09/06/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																										
Volatile Organic Compounds (UG_KG)																										
2-Butanone	2,200,000	--	NA	48	NA	24 J	NA	15 UJ	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	32 J	NA	14 J	NA	7.4 J	NA	6 J	NA	7.6 J
Acetone	1,400,000	--	NA	630 J	NA	650 J	NA	86 J	NA	12 UJ	NA	150 J	NA	94 J	NA	330 J	NA	570 J	NA	320 J	NA	59 J	NA	140	NA	100 J
Benzene	640	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	14 U	NA	15 U	NA	15 U	NA	13 U
Chloroform	220	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	14 U	NA	15 U	NA	15 U	NA	13 U
Ethylbenzene	400,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	14 U	NA	15 U	NA	2 J	NA	13 U
Methyl acetate	2,200,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	7.5 J	NA	15 U	NA	520 J	NA	3.8 J
Methylcyclohexane	260,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	14 U	NA	15 U	NA	15 U	NA	13 U
Styrene	1,700,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	14 U	NA	15 U	NA	15 UJ	NA	13 U
Toluene	520,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	2.7 J	NA	15 U	NA	21 J	NA	13 U
Trichloroethene	53	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16	NA	4.4 J	NA	15 U	NA	15 U	NA	13 U
Xylene, total	27,000	--	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 UJ	NA	14 U	NA	15 U	NA	6 J	NA	13 U
Semi-volatile Organic Compounds (UG_KG)																										
3	31,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Acetophenone	--	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	31 J	NA	26 J	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Anthracene	2,200,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	20 J	NA
Benzaldehyde	610,000	--	370 U	NA	420 U	NA	77 J	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 UJ	NA	480 U	NA	370 U	NA	420 U	NA
Benzo(a)anthracene	620	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	23 J	NA	120 J	NA	480 U	NA	21 J	NA	73 J	NA
Benzo(a)pyrene	62	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	120 J	NA	480 U	NA	26 J	NA	64 J	NA
Benzo(b)fluoranthene	620	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	61 J	NA	160 J	NA	480 U	NA	31 J	NA	93 J	NA
Benzo(g,h,i)perylene	230,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	85 J	NA	480 U	NA	18 J	NA	41 J	NA
Benzo(k)fluoranthene	6,200	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	53 J	NA	110 J	NA	480 U	NA	38 J	NA	43 J	NA
Butylbenzylphthalate	1,200,000	--	370 U	NA	420 U	NA	56 J	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Caprolactam	3,100,000	--	370 U	NA	140 J	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Carbazole	24,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Chrysene	62,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	43 J	NA	140 J	NA	480 U	NA	32 J	NA	77 J	NA
Di-n-butylphthalate	610,000	--	370 U	NA	420 U	NA	420 U	NA	24 J	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Dibenz(a,h)anthracene	62	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	470 U	NA	480 U	NA	370 U	NA	420 U	NA
Fluoranthene	230,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	40 J	NA	300 J	NA	480 U	NA	60 J	NA	140 J	NA
Indeno(1,2,3-cd)pyrene	620	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	81 J	NA	480 U	NA	370 U	NA	40 J	NA
Phenanthrene	230,000	--	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	100 J	NA	480 U	NA	22 J	NA	77 J	NA
Pyrene	230,000	--	370 UJ	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	59 J	NA	230 J	NA	480 U	NA	36 J	NA	120 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	370 U	NA	260 J	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	430 U	NA	48 J	NA	480 U	NA	83 J	NA	67 J	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																										
4,4'-DDD	2,400	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	17	NA	3.6 U	NA	3.5 U	NA	9.2	NA	4.3 U	NA	15	NA	0.85 J	NA	3.7 U	NA	2.1 J	NA
4,4'-DDE	1,700	--	2.7 J	NA	10	NA	19	NA	170	NA	4.6	NA	55	NA	170	NA	15	NA	46	NA	19	NA	13	NA	15	NA
4,4'-DDT	1,700	--	3.7 U	NA	3.8 J	NA	11	NA	52	NA	5.2	NA	19	NA	28	NA	8.8	NA	22	NA	15	NA	15	NA	16	NA
Aroclor-1260	--	--	37 U	NA	42 U	NA	23 J	NA	55	NA	36 U	NA	35 U	NA	43 U	NA	43 U	NA	47 U	NA	48 U	NA	37 U	NA	42 U	NA
Dieldrin	30	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	6.1	NA	3.6 U	NA	5.2	NA	4.3 U	NA	11 J	NA	4.2 J	NA	4.6 J	NA	5.2	NA	1.1 J	NA
Endosulfan sulfate	37,000	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	3.5 J	NA	4.7 U	NA	4.8 U	NA	3.7 U	NA	4.2 U	NA
Endrin	1,800	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.7 J	NA	4.3 U	NA	2.6 J	NA	4.8 U	NA	3.7 U	NA	4.2 U	NA
Endrin aldehyde	1,800	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	3.4 J	NA	4.2 U	NA
Endrin ketone	1,800	--	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	3.7 U	NA	4.2 U	NA
Heptachlor epoxide	53	--	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	1.9 U	NA	2.2 U	NA
alpha-Chlordane	1,600	--	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	1.9 U	NA	2.2 U	NA
gamma-Chlordane	1,600	--	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	1.9 U	NA	2.2 U	NA
Explosives (UG_KG)																										
No Detections																										
Total Metals (MG_KG)																										
Aluminum	7,600	5,487	4,040	NA	4,440	NA	2,910	NA	4,580	NA	4,060	NA	3,630	NA	4,300	NA	2,170	NA	5,630	NA	3,480	NA	4,600	NA	3,700	NA
Antimony	3.1	0.447	0.27 J	NA	0.28 J	NA	0.37 J	NA	5 UJ	NA	4.8 UJ	NA	4.7 UJ	NA	5.8 UJ	NA	5.8 UJ	NA	6.4 UJ	NA	5.7 UJ	NA	4.8 UJ	NA	5 UJ	NA
Arsenic	0.39	0.629	1.4	NA	1.3	NA	0.91 J	NA	0.98	NA	0.51 J	NA	0.68 J	NA	0.47 J	NA	0.56 J	NA	2.4	NA	1.7	NA	1.9 L	NA	1.8	NA
Barium	540	14.5	15.6 J	NA	13.3 J	NA	11.5 J	NA	17.2	NA	12.6 J	NA	14 J	NA	17.4 J	NA	15.1 J	NA	24	NA	23	NA	18.8	NA	11.2 J	NA
Beryllium	15	0.103	0.082 J	NA	0.062 J	NA	0.056 J	NA	0.13 J	NA	0.024 J	NA	0.39 U	NA	0.019 J	NA	0.48 U	NA	0.073 J	NA	0.063 J	NA	0.061 J	NA	0.027 J	NA
Cadmium	3.7	0.033	0.41 U	NA	0.48 U	NA	0.036 J	NA	0.42 U	NA	0.4 U	NA	0.39 U	NA	0.48 U	NA	0.48 U	NA	0.22 J	NA	0.12 J	NA	0.26 J	NA	0.23 J	NA
Calcium	--	6,360	234 J	NA	179 J	NA	495	NA	8,750	NA	770	NA	391 J	NA	328 J	NA	141 J	NA	35,900	NA	3,120	NA	6,810 J	NA	42,100	NA
Chromium	22	6.05	2.6	NA	3.7	NA	3	NA	5.9	NA	3.8	NA	4	NA	4.2	NA	3.1	NA	8.5	NA	6.1	NA	6.2	NA	6.9	NA
Cobalt	140	0.294	0.14 J	NA	0.15 J	NA	0.14 J	NA	0.34 J	NA	0.14 J	NA	0.17 J	NA	0.17 J	NA	0.12 J	NA	0.38 J	NA	0.34 J	NA	0.33 J	NA	0.28 J	NA
Copper	310	4.83	0.84 J	NA	0.68 J	NA	1 J	NA	4	NA	2 U	NA	2 U	NA	2.4 U	NA	2.4 U	NA	4.2	NA	2.2 J	NA	3.1	NA	10.7	NA
Cyanide	120	--	2.6 U	NA	2.9 U	NA	2.6 U	NA	2.4 U	NA	2.4 U	NA	2.5 U	NA	3.1 U	NA	3 U	NA	3.4 U	NA	3.5 U	NA	2.8 U	NA	3.2 U	NA
Iron	2,300	3,245	2,140	NA	2,530	NA	2,680	NA	3,600	NA	2,870	NA	2,580	NA	2,730	NA	2,090	NA	4,650 J	NA	4,390	NA	4,040 J	NA	3,050	NA
Lead	400	12.3	8.8	NA	9	NA	14.2	NA	50.1 J	NA	8.6 J	NA	10.8 J	NA	8.1 J	NA	8.5 J	NA	29	NA	18.3	NA	20.6	NA	29.9	NA
Magnesium	--	238	102 J	NA	124 J	NA	100 J	NA	378 J	NA	109 J	NA	116 J	NA	131 J	NA	74.7 J	NA	848	NA	195 J	NA	350 J	NA	739	NA
Manganese	180	13.7	12.6	NA	8	NA	5.3	NA	44.1	NA	9.3	NA	11.4	NA	14.2	NA	10.1	NA	21.5 J	NA	11.3	NA	10.4	NA	14.3	NA
Mercury	2.3	0.081	0.027 J	NA	0.024 J	NA	0.027 J	NA	0.35 U	NA	0.39 U	NA	0.36 U	NA	0.43 U	NA	0.4 U	NA	0.051 J	NA	0.052 J	NA	0.089 U	NA	0.065 U	NA
Nickel	160	1.21	3.3 U	NA	3.8 U	NA	3.7 U	NA	1.9 J	NA	1.1 J	NA	0.95 J	NA	3.9 U	NA	3.9 U	NA	2.2 J	NA	1.7 J	NA	1.5 J	NA	1.6 J	NA
Potassium	--	116	78.2 J	NA	105 J	NA	76.1 J	NA	451	NA	117 J	NA	151 J	NA	178 J	NA	132 J	NA	261 J	NA	157 J	NA	170 J	NA	138 J	NA
Selenium	39	0.563	0.32 J	NA	0.34 J	NA	0.24 J	NA	2.9 U	NA	2.8 U	NA	2.8 U	NA	3.4 U	NA	3.4 U	NA	0.77 J	NA	3.4 U	NA	0.23 J	NA	0.73 J	NA
Silver	39	0.14	0.82 U	NA	0.96 U	NA	0.94 U	NA	0.83 U	NA	0.8 U	NA	0.79 U	NA	0.97 U	NA	0.97 U	NA	1.1 U	NA	0.96 U	NA	0.81 U	NA	0.83 U	NA
Sodium	--	80.9	412 U	NA	481 U	NA	469 U	NA	42.9 J	NA	16.2 J	NA	14.8 J	NA	16.7 J	NA	17 J	NA	77.6 J	NA	14.2 J	NA	27.9 J	NA	54.1 J	NA
Vanadium	7.8	8.9	5.7	NA	6.6	NA	6.2	NA	7.8	NA	7.1	NA	7.4	NA	7.5	NA	6	NA	10.7	NA	8.8	NA	8.5	NA	7.8	NA
Zinc	2,300	10.8	2.7 J	NA	3.5 J	NA	4 J	NA	22.1	NA	3.1 J	NA	3.7 J	NA	15.7	NA	2.3 J	NA	28.9	NA	29.3	NA	44.9	NA	51.5	NA
Wet Chemistry (MG_KG)																										
No Detections																										

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported

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Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-J14		MR04-J15		MR04-J16		MR04-J17		MR04-J18		MR04-J19		MR04-J20	
Sample ID			MR04-J14-07C	MR04-J14-0-1-07C	MR04-J15-0-1-07C	MR04-J15-07C	MR04-J16-07C	MR04-J16-0-1-07C	MR04-J17-0-1-07C	MR04-J17-07C	MR04-J18-0-1-07C	MR04-J18-07C	MR04-J19-0-1-07C	MR04-J19-07C	MR04-J20-0-1-07C	MR04-J20-07C
Sample Date			09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
2-Butanone	2,200,000	--	4.1 J	NA	NA	14 J	7 J	NA	NA	12 J	NA	5 J	NA	12 U	NA	16 U
Acetone	1,400,000	--	56 J	NA	NA	100 J	80 J	NA	NA	41 J	NA	16 J	NA	22 J	NA	48 J
Benzene	640	--	12 U	NA	NA	7 J	14 UJ	NA	NA	5 J	NA	3 J	NA	12 U	NA	16 UJ
Chloroform	220	--	12 U	NA	NA	15 U	14 U	NA	NA	15 U	NA	11 U	NA	12 U	NA	16 U
Ethylbenzene	400,000	--	12 U	NA	NA	15 UJ	14 UJ	NA	NA	15 U	NA	11 U	NA	12 UJ	NA	16 UJ
Methyl acetate	2,200,000	--	36	NA	NA	27 J	200 J	NA	NA	25	NA	14	NA	36	NA	73 J
Methylcyclohexane	260,000	--	12 U	NA	NA	15 U	14 UJ	NA	NA	3 J	NA	2 J	NA	12 U	NA	16 UJ
Styrene	1,700,000	--	12 U	NA	NA	15 UJ	14 UJ	NA	NA	15 U	NA	11 U	NA	12 UJ	NA	16 UJ
Toluene	520,000	--	12 U	NA	NA	10 J	14 UJ	NA	NA	15 U	NA	2 J	NA	12 UJ	NA	16 UJ
Trichloroethene	53	--	12 U	NA	NA	15 U	14 UJ	NA	NA	15 U	NA	11 U	NA	12 U	NA	16 UJ
Xylene, total	27,000	--	12 U	NA	NA	15 UJ	14 UJ	NA	NA	15 U	NA	11 U	NA	12 UJ	NA	16 UJ
Semi-volatile Organic Compounds (UG_KG)																
[3]	31,000	--	NA	400 U	430 U	NA	NA	450 U	460 U	NA	360 U	NA	380 U	NA	480 U	NA
Acetophenone	--	--	NA	400 U	430 U	NA	NA	450 U	460 U	NA	360 U	NA	380 U	NA	480 U	NA
Anthracene	2,200,000	--	NA	400 U	45 J	NA	NA	450 U	460 U	NA	53 J	NA	380 U	NA	480 U	NA
Benzaldehyde	610,000	--	NA	400 U	430 U	NA	NA	450 U	460 U	NA	360 U	NA	380 U	NA	480 U	NA
Benzo(a)anthracene	620	--	NA	200 J	330 J	NA	NA	27 J	120 J	NA	420	NA	19 J	NA	480 U	NA
Benzo(a)pyrene	62	--	NA	230 J	320 J	NA	NA	32 J	120 J	NA	500	NA	19 J	NA	480 U	NA
Benzo(b)fluoranthene	620	--	NA	310 J	470	NA	NA	51 J	220 J	NA	720	NA	48 J	NA	480 U	NA
Benzo(g,h,i)perylene	230,000	--	NA	180 J	230 J	NA	NA	44 J	170 J	NA	250 J	NA	19 J	NA	480 U	NA
Benzo(k)fluoranthene	6,200	--	NA	190 J	360 J	NA	NA	36 J	170 J	NA	680	NA	33 J	NA	480 U	NA
Butylbenzylphthalate	1,200,000	--	NA	34 J	45 J	NA	NA	28 J	24 J	NA	19 J	NA	380 U	NA	480 U	NA
Caprolactam	3,100,000	--	NA	400 U	430 U	NA	NA	450 U	460 U	NA	360 U	NA	380 U	NA	480 U	NA
Carbazole	24,000	--	NA	27 J	70 J	NA	NA	450 U	23 J	NA	48 J	NA	380 U	NA	480 U	NA
Chrysene	62,000	--	NA	290 J	510	NA	NA	51 J	200 J	NA	640	NA	39 J	NA	480 U	NA
Di-n-butylphthalate	610,000	--	NA	400 U	430 U	NA	NA	450 U	460 U	NA	360 U	NA	380 U	NA	480 U	NA
Dibenz(a,h)anthracene	62	--	NA	400 U	56 J	NA	NA	450 U	30 J	NA	64 J	NA	380 U	NA	480 U	NA
Fluoranthene	230,000	--	NA	550	1,200	NA	NA	87 J	380 J	NA	1,400	NA	72 J	NA	480 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	160 J	200 J	NA	NA	34 J	130 J	NA	220 J	NA	380 U	NA	480 U	NA
Phenanthrene	230,000	--	NA	210 J	500	NA	NA	33 J	120 J	NA	420	NA	23 J	NA	480 U	NA
Pyrene	230,000	--	NA	430	900	NA	NA	68 J	310 J	NA	730	NA	45 J	NA	480 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	44 J	400 J	NA	NA	85 J	130 J	NA	59 J	NA	45 J	NA	480 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	2,400	--	NA	4 U	24	NA	NA	4.5 U	4.7 U	NA	3.6 U	NA	35	NA	4.9 U	NA
4,4'-DDE	1,700	--	NA	2.1 J	770	NA	NA	33	11 J	NA	3.6 U	NA	370	NA	25	NA
4,4'-DDT	1,700	--	NA	2.1 J	660	NA	NA	21	7.9	NA	3.1 J	NA	210	NA	15	NA
Aroclor-1260	--	--	NA	40 U	86 U	NA	NA	45 U	47 U	NA	36 U	NA	38 U	NA	49 U	NA
Dieldrin	30	--	NA	4 U	4.9 J	NA	NA	3.3 J	36	NA	3.6 U	NA	3.5 J	NA	12	NA
Endosulfan sulfate	37,000	--	NA	4 U	8.6 U	NA	NA	4.5 U	4.7 U	NA	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin	1,800	--	NA	4 U	8.6 U	NA	NA	4.5 U	4.7 U	NA	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin aldehyde	1,800	--	NA	4 U	8.6 U	NA	NA	4.5 U	4.7 U	NA	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin ketone	1,800	--	NA	4 U	8.6 U	NA	NA	4.5 U	4.7 U	NA	3.6 U	NA	3.8 U	NA	4.9 U	NA
Heptachlor epoxide	53	--	NA	2 U	4.4 U	NA	NA	2.3 U	2.4 U	NA	1.9 U	NA	2 U	NA	2.5 U	NA
alpha-Chlordane	1,600	--	NA	2 U	4.4 U	NA	NA	2.3 U	15 J	NA	1.9 U	NA	0.99 J	NA	2.5 U	NA
gamma-Chlordane	1,600	--	NA	2 U	4.4 U	NA	NA	2.3 U	7	NA	1.9 U	NA	2 U	NA	2.5 U	NA
Explosives (UG_KG)																
No Detections																
Total Metals (MG_KG)																
Aluminum	7,600	5,487	NA	3,650	2,840	NA	NA	4,020	4,460	NA	3,730	NA	4,450	NA	5,900	NA
Antimony	3.1	0.447	NA	4.6 UJ	5.9 UJ	NA	NA	6.1 UJ	6.3 UJ	NA	4.7 UJ	NA	5.2 UJ	NA	6.8 UJ	NA
Arsenic	0.39	0.626	NA	2	2.2 J	NA	NA	1.7 J	2.2 J	NA	2 J	NA	2 J	NA	1.9 J	NA
Barium	540	14.5	NA	9.2 J	9.8 J	NA	NA	16 J	14.2 J	NA	12.9 J	NA	12.1 J	NA	11.1 J	NA
Beryllium	15	0.103	NA	0.028 J	0.046 J	NA	NA	0.06 J	0.071 J	NA	0.13 J	NA	0.042 J	NA	0.049 J	NA
Cadmium	3.7	0.033	NA	0.19 J	0.27 J	NA	NA	0.19 J	0.25 J	NA	0.42	NA	0.16 J	NA	0.042 J	NA
Calcium	--	6,360	NA	27,400	51,000 J	NA	NA	11,100 J	7,550 J	NA	13,700 J	NA	19,100 J	NA	593 J	NA
Chromium	22	6.05	NA	6.1	7.1	NA	NA	5.2	6.9	NA	13.5	NA	6.3	NA	7.1	NA
Cobalt	140	0.294	NA	0.47 J	0.32 J	NA	NA	0.23 J	0.51 J	NA	1.1 J	NA	0.28 J	NA	0.29 J	NA
Copper	310	4.83	NA	3.3	4	NA	NA	2.9	4.2	NA	1.2 J	NA	2.5	NA	1.1 J	NA
Cyanide	120	--	NA	2.9 U	0.09 J	NA	NA	3.4 U	3.4 U	NA	2.6 U	NA	0.098 J	NA	3.3 U	NA
Iron	2,300	3,245	NA	3,010	3,670 J	NA	NA	3,090 J	3,670 J	NA	2,950 J	NA	3,680 J	NA	4,230 J	NA
Lead	400	12.3	NA	8.8	32.2	NA	NA	30.7	16.3	NA	5.5	NA	23.7	NA	9.2	NA
Magnesium	--	238	NA	862	954	NA	NA	343 J	305 J	NA	369 J	NA	511	NA	207 J	NA
Manganese	180	13.7	NA	11.4	22.9	NA	NA	18.3	18.4	NA	9.9	NA	12.4	NA	4.5	NA
Mercury	2.3	0.081	NA	0.058 U	0.099 U	NA	NA	0.12 U	0.1 U	NA	0.084 U	NA	0.089 U	NA	0.13 U	NA
Nickel	160	1.21	NA	2 J	2.1 J	NA	NA	1.3 J	1.8 J	NA	1.9 J	NA	1.5 J	NA	1.2 J	NA
Potassium	--	116	NA	151 J	227 J	NA	NA	138 J	167 J	NA	251 J	NA	199 J	NA	238 J	NA
Selenium	39	0.563	NA	0.58 J	1 J	NA	NA	0.26 J	3.7 U	NA	0.54 J	NA	0.47 J	NA	4 U	NA
Silver	39	0.14	NA	0.77 U	0.98 U	NA	NA	1 U	1 U	NA	0.79 U	NA	0.87 U	NA	1.1 U	NA
Sodium	--	80.9	NA	56 J	70.3 J	NA	NA	30.3 J	36.6 J	NA	91 J	NA	49.1 J	NA	29.3 J	NA
Vanadium	7.8	8.9	NA	7.8	10.5	NA	NA	7.1	8.8	NA	11.7	NA	9.2	NA	11	NA
Zinc	2,300	10.8	NA	52.7	70.9	NA	NA	43.1	163	NA	34.7	NA	48.6	NA	10.4	NA
Wet Chemistry (MG_KG)																
No Detections																

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-K01		MR04-K02		MR04-K03		MR04-K04		MR04-K05		MR04-K06		MR04-K07		MR04-K08		MR04-K09	
Sample ID			MR04-K01-07D	MR04-K01-0-1-07D	MR04-K02-07D	MR04-K02-0-1-07D	MR04-K03-07D	MR04-K03-0-1-07D	MR04-K04-07D	MR04-K04-0-1-07D	MR04-K05-07D	MR04-K05-0-1-07D	MR04-K06-07D	MR04-K06-0-1-07D	MR04-K07-07D	MR04-K07-0-1-07D	MR04-K08-07D	MR04-K08-0-1-07D	MR04-K09-0-1-07C[1]	MR04-K09-07C[1]
Sample Date			10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
2-Butanone	2,200,000	--	18	NA	15 UJ	NA	7.1 J	NA	18 U	NA	13 U	NA	23	NA	10 U	NA	24	NA	NA	13 U
Acetone	1,400,000	--	300 J	NA	200 J	NA	100 J	NA	130 J	NA	170 J	NA	620 J	NA	16 J	NA	810 J	NA	NA	220
Benzene	640	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	13 UJ
Chloroform	220	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	13 U
Ethylbenzene	400,000	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	13 UJ
Methyl acetate	2,200,000	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	400 J
Methylcyclohexane	260,000	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 UJ	NA	16 U	NA	10 UJ	NA	13 UJ	NA	NA	13 UJ
Styrene	1,700,000	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	13 UJ
Toluene	520,000	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	24 J
Trichloroethene	53	--	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U	NA	NA	13 UJ
Semi-volatile Organic Compounds (UG_KG)																				
Acetophenone	--	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	24 J	NA
Anthracene	2,200,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzaldehyde	610,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzo(a)anthracene	620	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzo(a)pyrene	62	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzo(b)fluoranthene	620	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzo(g,h,i)perylene	230,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Benzo(k)fluoranthene	6,200	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Butylbenzylphthalate	1,200,000	--	NA	440 U	NA	350 U	NA	420 U	NA	75 J	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Caprolactam	3,100,000	--	NA	200 J	NA	350 U	NA	160 J	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Carbazole	24,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Chrysene	62,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Di-n-butylphthalate	610,000	--	NA	440 U	NA	3,000	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Fluoranthene	230,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Fluorene	270,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Phenanthrene	230,000	--	NA	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Pyrene	230,000	--	NA	440 UJ	NA	350 UJ	NA	420 UJ	NA	430 U	NA	350 UJ	NA	460 UJ	NA	370 UJ	NA	380 UJ	380 U	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	440 U	NA	350 U	NA	420 U	NA	210 J	NA	350 U	NA	460 U	NA	370 U	NA	380 U	380 U	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	2,400	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
4,4'-DDE	1,700	--	NA	4.4 U	NA	3.4 J	NA	11	NA	32	NA	4.2	NA	2.4 J	NA	2.4 J	NA	2.2 J	6.2	NA
4,4'-DDT	1,700	--	NA	4.4 U	NA	5.1	NA	2.5 J	NA	6	NA	2.7 J	NA	4.6 U	NA	3.7 U	NA	3.8 U	2.2 J	NA
Aldrin	29	--	NA	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	2 U	NA
Aroclor-1254	110	--	NA	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	38 U	NA
Aroclor-1260	--	--	NA	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	38 U	NA
Dieldrin	30	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Endosulfan I	37,000	--	NA	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	2 U	NA
Endosulfan II	37,000	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Endosulfan sulfate	37,000	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Endrin	1,800	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Endrin aldehyde	1,800	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Endrin ketone	1,800	--	NA	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	3.8 U	NA
Heptachlor epoxide	53	--	NA	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	2 U	NA
alpha-Chlordane	1,600	--	NA	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	2 U	NA
gamma-Chlordane	1,600	--	NA	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	2 U	NA
Explosives (UG_KG)																				
No Detections																				
Total Metals (MG_KG)																				
Aluminum	7,600	5,487	NA	6,650	NA	4,050	NA	2,760	NA	4,230	NA	3,400	NA	6,990	NA	3,540	NA	5,970	2,030	NA
Antimony	3.1	0.447	NA	5.8 UJ	NA	4.6 UJ	NA	0.28 J	NA	0.32 J	NA	4.9 UJ	NA	6.3 UJ	NA	5 UJ	NA	5.1 UJ	0.29 J	NA
Arsenic	0.39	0.626	NA	2.5	NA	0.95	NA	0.68 J	NA	1.3	NA	1.2	NA	1.5	NA	1.2	NA	1.3	0.97	NA
Barium	540	14.5	NA	10.7 J	NA	13.4 J	NA	15.1 J	NA	18.1 J	NA	20.1	NA	16.3 J	NA	22.4	NA	17.4	26.7	NA
Beryllium	15	0.103	NA	0.086 J	NA	0.052 J	NA	0.082 J	NA	0.047 J	NA	0.018 J	NA	0.05 J	NA	0.085 J	NA	0.027 J	0.42 U	NA
Cadmium	3.7	0.033	NA	0.48 U	NA	0.032 J	NA	0.48 U	NA	0.48 U	NA	0.41 U	NA	0.53 U	NA	0.41 U	NA	0.42 U	0.42 U	NA
Calcium	--	6,360	NA	149 J	NA	248 J	NA	365 J	NA	1,980	NA	107 J	NA	251 J	NA	169 J	NA	179 J	684	NA
Chromium	22	6.05	NA	9.2	NA	4.6	NA	2.4	NA	4.5	NA	4.1	NA	7.7	NA	4	NA	5.6	2.3 J	NA
Cobalt	140	0.294	NA	0.24 J	NA	0.77 J	NA	0.1 J	NA	0.17 J	NA	0.22 J	NA	0.24 J	NA	0.13 J	NA	0.23 J	0.11 J	NA
Copper	310	4.83	NA	0.73 J	NA	10.3	NA	0.51 J	NA	0.84 J	NA	0.61 J	NA	1 J	NA	0.78 J	NA	0.76 J	1.1 J	NA
Cyanide	120	--	NA	2.7 U	NA	2.6 U	NA	2.9 U	NA	3.2 U	NA	2.7 U	NA	2.9 U	NA	2.7 U	NA	2.7 U	2.8 U	NA
Iron	2,300	3,245	NA	10,800	NA	2,490	NA	2,000	NA	3,390	NA	3,770	NA	4,780	NA	2,800	NA	3,520	1,840	NA
Lead	400	12.3	NA	9.2	NA	18.4	NA	8.9	NA	11.8	NA	6.3	NA	6.8	NA	6.9	NA	6.4	8.5	NA
Magnesium	--	238	NA	175 J	NA	110 J	NA	72.9 J	NA	165 J	NA	110 J	NA	190 J	NA	94.7 J	NA	141 J	421 U	NA
Manganese	180	13.7	NA	8.2	NA	10	NA	7.6	NA	10.3	NA	7.3	NA	7.9	NA	6.7	NA	6.9	8.7 J	NA
Mercury	2.3	0.081	NA	0.016 J	NA	0.13 J	NA	0.026 J	NA	0.031 J	NA	0.2 U	NA	0.23 U	NA	0.19 U	NA	0.21 U	0.033 J	NA
Nickel	160	1.21	NA	3.8 U	NA	3.1 U	NA	3.9 U	NA	3.9 U	NA	0.63 J	NA	1 J	NA	0.67 J	NA	1.1 J	0.63 J	NA
Potassium	--	116	NA	201 J	NA	147 J	NA	77.3 J	NA	140 J	NA	144 J	NA	262 J	NA	142 J	NA	160 J	112 J	NA
Selenium	39	0.563	NA	0.42 J	NA	0.22 J	NA	0.46 J	NA	0.26 J	NA	2.9 U	NA	3.7 U	NA	0.28 J	NA	3 U	2.9 U	NA
Silver	39	0.14	NA	0.96 U	NA	0.77 U	NA	0.97 U	NA	0.97 U	NA	0.81 U	NA	1.1 U	NA	0.83 U	NA	0.85 U	0.84 U	NA
Sodium	--	80.9	NA	481 U	NA	387 U	NA	485 U	NA	483 U	NA	408 U	NA	528 U	NA	414 U	NA	425 U	16.5 J	NA
Vanadium	7.8	8.9	NA	15.9	NA	6.5	NA	5	NA	9.1	NA	9.1	NA	13	NA	7	NA	9.7	5.3	NA
Zinc	2,300	10.8	NA	3.5 J	NA	24.5 J	NA	1.8 J	NA	3.4 J	NA	4.9 U	NA	6.3 U	NA	5 U	NA	5.1 U	2.1 J	NA
Wet Chemistry (MG_KG)																				
No Detections																				

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-K10		MR04-K11		MR04-K12		MR04-K13		MR04-K14		MR04-K15		MR04-K16		MR04-K17		MR04-K18		MR04-K19		MR04-K20	
Sample ID			MR04-K10-07C	MR04-K10-0-1-07C	MR04-K11-07C	MR04-K11-0-1-07C	MR04-K12-07C	MR04-K12-0-1-07C	MR04-K13-07C	MR04-K13-0-1-07C	MR04-K14-07C[1]	MR04-K14-0-1-07C[1]	MR04-K15-07C	MR04-K15-0-1-07C	MR04-K16-0-1-07C	MR04-K16-07C	MR04-K17-07C	MR04-K17-0-1-07C	MR04-K18-07C	MR04-K18-0-1-07C	MR04-K19-07C	MR04-K19-0-1-07C	MR04-K20-07C	MR04-K20-0-1-07C
Sample Date			09/08/07	09/08/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																								
Volatile Organic Compounds (UG_KG)																								
2-Butanone	2,200,000	--	8.3 J	NA	20	NA	7 J	NA	22	NA	17 J	NA	10 J	NA	NA	15 J	3 J	NA	16 UJ	NA	9 J	NA	10 J	NA
Acetone	1,400,000	--	240 J	NA	470 J	NA	80 J	NA	770 J	NA	180 J	NA	150 J	NA	NA	240 J	190 J	NA	230 J	NA	150 J	NA	270 J	NA
Benzene	640	--	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	2 J	NA	NA	3 J	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Chloroform	220	--	0.96 J	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	15 U	NA	NA	11 UJ	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Ethylbenzene	400,000	--	5.3 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	15 UJ	NA	NA	11 UJ	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Methyl acetate	2,200,000	--	14 U	NA	8.2 J	NA	11 J	NA	9.8 J	NA	520 J	NA	850 J	NA	NA	110 J	100 J	NA	550 J	NA	170 J	NA	420 J	NA
Methylcyclohexane	260,000	--	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	15 UJ	NA	NA	11 UJ	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Styrene	1,700,000	--	1.2 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	15 UJ	NA	NA	11 UJ	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Toluene	520,000	--	1.3 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	3 J	NA	NA	11 UJ	6 J	NA	16 UJ	NA	11 UJ	NA	3 J	NA
Trichloroethene	53	--	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	15 UJ	NA	NA	11 UJ	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA
Semi-volatile Organic Compounds (UG_KG)																								
Acetophenone	--	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	460 U	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Anthracene	2,200,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	79 J	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Benzaldehyde	610,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	460 U	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	50 J
Benzo(a)anthracene	620	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	76 J	NA	760	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Benzo(a)pyrene	62	--	NA	460 U	NA	45 J	NA	56 J	NA	470 U	NA	70 J	NA	760	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Benzo(b)fluoranthene	620	--	NA	460 U	NA	71 J	NA	81 J	NA	38 J	NA	140 J	NA	1,400	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Benzo(g,h,i)perylene	230,000	--	NA	460 U	NA	490 U	NA	58 J	NA	470 U	NA	50 J	NA	550	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Benzo(k)fluoranthene	6,200	--	NA	460 U	NA	31 J	NA	39 J	NA	470 U	NA	80 J	NA	1,300	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Butylbenzylphthalate	1,200,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	460 U	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Caprolactam	3,100,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	460 U	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Carbazole	24,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	21 J	NA	110 J	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Chrysene	62,000	--	NA	460 U	NA	56 J	NA	65 J	NA	34 J	NA	140 J	NA	1,300	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Di-n-butylphthalate	610,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	460 U	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Fluoranthene	230,000	--	NA	460 U	NA	110 J	NA	96 J	NA	47 J	NA	130 J	NA	2,000	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Fluorene	270,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	25 J	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Indeno(1,2,3-cd)pyrene	620	--	NA	460 U	NA	490 U	NA	47 J	NA	470 U	NA	42 J	NA	480	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Phenanthrene	230,000	--	NA	460 U	NA	44 J	NA	31 J	NA	470 U	NA	33 J	NA	730	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
Pyrene	230,000	--	NA	460 U	NA	84 J	NA	76 J	NA	36 J	NA	120 J	NA	1,800	370 U	NA	NA	380 U	NA	370 U	NA	400 U	NA	380 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	50 J	NA	260 J	190 J	NA	NA	36 J	NA	40 J	NA	400 J	NA	270 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																								
4,4'-DDD	2,400	--	NA	4.7 U	NA	5.5 J	NA	1.3 J	NA	0.66 J	NA	4 U	NA	3.7 J	17	NA	NA	3.8 U	NA	3.7 U	NA	11	NA	3.5 J
4,4'-DDE	1,700	--	NA	6.7	NA	23	NA	28	NA	9.4	NA	6.3 J	NA	40 J	130	NA	NA	7.5	NA	35	NA	390	NA	120
4,4'-DDT	1,700	--	NA	6.1	NA	22	NA	12 J	NA	9.4 J	NA	13	NA	45	150	NA	NA	7.7	NA	19	NA	140	NA	49
Aldrin	29	--	NA	2.4 U	NA	2.5 U	NA	0.28 J	NA	2.4 U	NA	2 U	NA	2.4 U	1.9 U	NA	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U
Aroclor-1254	110	--	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	47 U	37 U	NA	NA	38 U	NA	37 U	NA	39 U	NA	38 U
Aroclor-1260	--	--	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	47 U	37 U	NA	NA	38 U	NA	37 U	NA	39 U	NA	38 U
Dieldrin	30	--	NA	1.3 J	NA	20	NA	1.6 J	NA	1.1 J	NA	4 U	NA	4.7 U	7.2	NA	NA	3.4 J	NA	6.7	NA	190	NA	63
Endosulfan I	37,000	--	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	2.4 U	1.9 U	NA	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U
Endosulfan II	37,000	--	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	4.7 U	3.7 U	NA	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U
Endosulfan sulfate	37,000	--	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	4.7 U	3.7 U	NA	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U
Endrin	1,800	--	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	4.7 U	3.7 U	NA	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U
Endrin aldehyde	1,800	--	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	4.7 U	3.7 U	NA	NA	3.2 J	NA	3.7 U	NA	2.1 J	NA	2.4 J
Endrin ketone	1,800	--	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	4.7 U	3.7 U	NA	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U
Heptachlor epoxide	53	--	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	2.4 U	1.9 U	NA	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U
alpha-Chlordane	1,600	--	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.2 J	1.9 U	NA	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U
gamma-Chlordane	1,600	--	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	2.4 U	1.9 U	NA	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U
Explosives (UG_KG)																								
No Detections																								
Total Metals (MG_KG)																								
Aluminum	7,600	5,487	NA	2,960	NA	7,070	NA	4,170	NA	7,440	NA	5,580	NA	4,620	4,770	NA	NA	3,490	NA	5,590	NA	14,200 J	NA	3,950 J
Antimony	3.1	0.447	NA	0.64 J	NA	6 UJ	NA	5.4 U	NA	6 UJ	NA	0.34 J	NA	0.39 J	0.32 J	NA	NA	5.3 UJ	NA	0.45 J	NA	0.31 J	NA	5.1 UJ
Arsenic	0.39	0.626	NA	1.1	NA	2.4	NA	2.3	NA	3.1	NA	6.1	NA	14.2	1.9	NA	NA	1.6	NA	2.7	NA	5.4	NA	1.8
Barium	540	14.5	NA	18 J	NA	22 J	NA	30.5 J	NA	15.7 J	NA	12.4 J	NA	15.5 J	10.3 J	NA	NA	13.3 J	NA	17.2	NA	16 J	NA	9.4 J
Beryllium	15	0.103	NA	0.54 U	NA	0.5 U	NA	0.45 U	NA	0.5 U	NA	0.04 J	NA	0.045 J	0.029 J	NA	NA	0.04 J	NA	0.061 J	NA	0.12 J	NA	0.062 J
Cadmium	3.7	0.033	NA	0.54 U	NA	0.17 J	NA	0.42 J	NA	0.29 J	NA	0.085 J	NA	0.16 J	0.06 J	NA	NA	0.087 J	NA	0.12 J	NA	0.44 U	NA	0.052 J
Calcium	--	6,360	NA	362 J	NA	15,100 J	NA	24,700 J	NA	14,400 J	NA	1,780	NA	20,900	2,270	NA	NA	4,070	NA	5,710	NA	815 J	NA	1,020 J
Chromium	22	6.05	NA	3.2	NA	9.2	NA	10.7	NA	12.2	NA	7.3	NA	13.5	5.6	NA	NA	4	NA	7.4	NA	20.7 J	NA	5.4 J
Cobalt	140	0.294	NA	0.12 J	NA	5 U	NA	4.5 U	NA	5 U	NA	0.28 J	NA	0.28 J	0.2 J	NA	NA	0.17 J	NA	0.27 J	NA	0.58 J	NA	0.16 J
Copper	310	4.83	NA	1.1 J	NA	3.4	NA	3	NA	3.8	NA	3.2	NA	10.2	1.4 J	NA	NA	1.2 J	NA	2.2	NA	1.9 J	NA	1.2 J
Cyanide	120	--	NA	3.3 U	NA	3.6 U	NA	3 U	NA	3.5 U	NA	0.092 J	NA	3.3 U	2.8 U	NA	NA	2.8 U	NA	2.6 U	NA	2.7 U	NA	2.6 U
Iron	2,300	3,245	NA	3,080 J	NA	5,990 J	NA	2,820 J	NA	5,510 J	NA	7,010	NA	4,410	4,330	NA	NA	2,790	NA	5,420	NA	9,510 J	NA	3,420 J
Lead	400	12.3	NA	6.9	NA	22.7	NA	8	NA	11.9	NA	8.5	NA	39.4	11.4	NA	NA	10.1	NA	15.9	NA	11.6	NA	17
Magnesium	--	238	NA	96.2 J	NA	483 J	NA	549	NA	572	NA	181 J	NA	486 J	170 J	NA	NA	194 J	NA	260 J	NA	599	NA	174 J
Manganese	180	13.7	NA	10.9 J	NA	18.1	NA	19	NA	18.6	NA	8.2	NA	26.3	8.5	NA	NA	6	NA	13.6	NA	7.7	NA	6.3
Mercury	2.3	0.081	NA	0.098 U	NA	0.029 J	NA	0.11 U	NA	0.019 J	NA	0.013 J	NA	0.024 J	0.11 U	NA	NA	0.026 J	NA	0.091 U	NA	0.025 J	NA	0.021 J
Nickel	160	1.21	NA	0.74 J	NA	2.1 J	NA	4	NA	3.5 J	NA	1.9 J	NA	1.9 J	1.2 J	NA	NA	1 J	NA	1.4 J	NA	2.1 J	NA	1.1 J
Potassium	--	116	NA	116 J	NA	259 J	NA	258 J	NA	322 J	NA	186 J	NA	189 J	130 J	NA	NA	139 J	NA	211 J	NA	695	NA	193 J
Selenium	39	0.563	NA	3.8 U	NA	0.38 J	NA	0.92 J	NA	3.5 U	NA	0.35 J	NA	0.69 J	2.9 U	NA	NA	3.1 U	NA	0.38 J	NA	0.24 J	NA	0.37 J
Silver	39	0.14	NA	1.1 U	NA	1 U	NA	0.17 J	NA	0.99 U	NA	0.89 U	NA	1 U	0.84 U	NA	NA	0.88 U	NA	0.84 U	NA	0.88 U	NA	0.85 U
Sodium	--	80.9	NA	15.2 J	NA	54.4 J	NA	98.8 J	NA	82.3 J	NA	20.9 J	NA	31.7 J	15.1 J	NA	NA	11.3 J	NA	20.9 J	NA	33.5 J	NA	26.6 J
Vanadium	7.8	8.9	NA	7.4	NA	13	NA	10.2	NA	12.7	NA	12.1	NA	10.1	9	NA	NA	6.9	NA	12.4	NA	28.6	NA	8.4
Zinc	2,300	10.8	NA	3.1 J	NA	19.5	NA	32.3	NA	51.1	NA	28.1	NA	41.6	13.2	NA	NA	7.8	NA	37.6	NA	13.7	NA	10.9
Wet Chemistry (MG_KG)																								
No Detections																								

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-L01		MR04-L02		MR04-L03		MR04-L04		MR04-L05		MR04-L06		MR04-L07		MR04-L08		MR04-L09		MR04-L10		MR04-L11		MR
Sample ID			MR04-L01-07D	MR04-L01-0-1-07D	MR04-L02-07D	MR04-L02-0-1-07D	MR04-L03-07D	MR04-L03-0-1-07D	MR04-L04-07D	MR04-L04-0-1-07D	MR04-L05-07D	MR04-L05-0-1-07D	MR04-L06-07D	MR04-L06-0-1-07D	MR04-L07-07C	MR04-L07-0-1-07C	MR04-L08-07C	MR04-L08-0-1-07C	MR04-L09-07C	MR04-L09-0-1-07C	MR04-L10-07C	MR04-L10-0-1-07C	MR04-L11-07C	MR04-L11-0-1-07C	MR04-L12-07C
Sample Date			10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																									
Volatile Organic Compounds (UG_KG)																									
2-Butanone	2,200,000	--	19 J	NA	15	NA	19	NA	13 U	NA	21 J	NA	17 U	NA	13 U	NA	15 U	NA	20 J	NA	10 J	NA	6 J	NA	14 U
Acetone	1,400,000	--	590 J	NA	380 J	NA	470 J	NA	760 J	NA	400 J	NA	630 J	NA	130 J	NA	160 J	NA	740 J	NA	110	NA	58	NA	190
Benzene	640	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	2 J	NA	1 J	NA	14 UJ
Chloroform	220	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	NA	13 U	NA	14 U
Ethylbenzene	400,000	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	NA	13 U	NA	14 UJ
Methyl acetate	2,200,000	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	160	NA	350 J	NA	14 U	NA	69	NA	140	NA	730 J
Methylcyclohexane	260,000	--	17 U	NA	12 U	NA	11 UJ	NA	13 UJ	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	NA	13 U	NA	14 UJ
Styrene	1,700,000	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	110 J	NA	14 U	NA	13 U	NA	14 UJ
Toluene	520,000	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 UJ	NA	3 J	NA	8.6 J	NA	3 J	NA	2 J	NA	1 J
Trichloroethene	53	--	17 U	NA	12 U	NA	11 U	NA	13 U	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	NA	13 U	NA	14 UJ
Semi-volatile Organic Compounds (UG_KG)																									
Acetophenone	--	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	28 J	NA	22 J	NA	390 U	NA	25 J	NA	420 U	NA	460 U	NA	410 U	NA
Anthracene	2,200,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Benzaldehyde	610,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Benzo(a)anthracene	620	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	110 J	NA
Benzo(a)pyrene	62	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	120 J	NA
Benzo(b)fluoranthene	620	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	220 J	NA
Benzo(g,h,i)perylene	230,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	95 J	NA
Benzo(k)fluoranthene	6,200	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	120 J	NA
Butylbenzylphthalate	1,200,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Caprolactam	3,100,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Carbazole	24,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	22 J	NA
Chrysene	62,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	25 J	NA	200 J	NA
Di-n-butylphthalate	610,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Fluoranthene	230,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	52 J	NA	440	NA
Fluorene	270,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	410 U	NA
Indeno(1,2,3-cd)pyrene	620	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	81 J	NA
Phenanthrene	230,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	130 J	NA
Pyrene	230,000	--	NA	420 UJ	NA	360 UJ	NA	350 UJ	NA	350 UJ	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	32 J	NA	300 J	NA
bis(2-Ethylhexyl)phthalate	35,000	--	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	30 J	NA	69 J	NA
Pesticide/Polychlorinated Biphenyls (UG_KG)																									
4,4'-DDD	2,400	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	22	NA	28	NA
4,4'-DDE	1,700	--	NA	4.2 U	NA	2.6 J	NA	3.5 U	NA	2.1 J	NA	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	0.79 J	NA	44	NA	160	NA
4,4'-DDT	1,700	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	8.1	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	56	NA	370	NA
Aldrin	29	--	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	2.1 U	NA
Aroclor-1254	110	--	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	41 U	NA
Aroclor-1260	--	--	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	41 U	NA
Dieldrin	30	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Endosulfan I	37,000	--	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	2.1 U	NA
Endosulfan II	37,000	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Endosulfan sulfate	37,000	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	6.8 J	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Endrin	1,800	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	8.9 J	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Endrin aldehyde	1,800	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	6.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Endrin ketone	1,800	--	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	4.1 U	NA
Heptachlor epoxide	53	--	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	2.1 U	NA
alpha-Chlordane	1,600	--	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	2.1 U	NA
gamma-Chlordane	1,600	--	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA	4.2	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	2.1 U	NA
Explosives (UG_KG)																									
No Detections																									
Total Metals (MG_KG)																									
Aluminum	7,600	5,487	NA	3,020	NA	2,610	NA	4,020	NA	2,410	NA	6,130	NA	4,150	NA	1,490	NA	3,040	NA	4,430	NA	3,420	NA	4,000	NA
Antimony	3.1	0.447	NA	5.7 UJ	NA	4.8 UJ	NA	4.6 UJ	NA	4.7 UJ	NA	6.7 UJ	NA	5.9 UJ	NA	0.25 J	NA	0.26 J	NA	5.8 UJ	NA	6 UJ	NA	0.55 J	NA
Arsenic	0.39	0.626	NA	1.4	NA	0.85	NA	1.2	NA	0.97	NA	0.86 J	NA	1.2	NA	0.73 J	NA	1.7	NA	1.9	NA	1.5	NA	2.5	NA
Barium	540	14.5	NA	8.4 J	NA	10.4 J	NA	13.2 J	NA	8.3 J	NA	25.8	NA	16.5 J	NA	18.4	NA	10.6 J	NA	13.8 J	NA	22	NA	10.4 J	NA
Beryllium	15	0.103	NA	0.032 J	NA	0.026 J	NA	0.031 J	NA	0.4 U	NA	0.17 J	NA	0.017 J	NA	0.43 U	NA	0.41 U	NA	0.48 U	NA	0.032 J	NA	0.061 J	NA
Cadmium	3.7	0.033	NA	0.47 U	NA	0.4 U	NA	0.39 U	NA	0.4 U	NA	0.56 U	NA	0.5 U	NA	0.43 U	NA	0.41 U	NA	0.049 J	NA	0.12 J	NA	0.16 J	NA
Calcium	--	6,360	NA	82.1 J	NA	292 J	NA	96.9 J	NA	46.5 J	NA	159 J	NA	79.3 J	NA	96.5 J	NA	103 J	NA	132 J	NA	9,820	NA	9,180	NA
Chromium	22	6.05	NA	3.7	NA	2.4	NA	4.5	NA	2.8	NA	8.3	NA	5.7	NA	1.8 J	NA	4.4 J	NA	5.9	NA	5.6	NA	8.2	NA
Cobalt	140	0.294	NA	0.12 J	NA	0.12 J	NA	0.2 J	NA	0.11 J	NA	0.21 J	NA	0.15 J	NA	0.06 J	NA	0.08 J	NA	0.17 J	NA	0.58 J	NA	0.75 J	NA
Copper	310	4.83	NA	0.46 J	NA	0.55 J	NA	0.69 J	NA	0.56 J	NA	2.8 U	NA	2.5 U	NA	0.6 J	NA	5	NA	0.64 J	NA	1.5 J	NA	4.2	NA
Cyanide	120	--	NA	2.9 U	NA	2.5 U	NA	2.6 U	NA	2.5 U	NA	3.7 U	NA	3 U	NA	2.9 U	NA	2.7 U	NA	2.8 U	NA	3.2 U	NA	2.9 U	NA
Iron	2,300	3,245	NA	2,780	NA	1,880	NA	3,000	NA	1,970	NA	2,920	NA	5,600	NA	1,660	NA	7,360	NA	4,580 J	NA	2,510	NA	3,210	NA
Lead	400	12.3	NA	5.4	NA	8.2	NA	8.6	NA	5.6	NA	7.5 J	NA	6.4 J	NA	7.5	NA	7.7	NA	5.5	NA	6	NA	9.6	NA
Magnesium	--	238	NA	62 J	NA	80.4 J	NA	113 J	NA	66.1 J	NA	216 J	NA	93.6 J	NA	426 U	NA	73.5 J	NA	113 J	NA	231 J	NA	290 J	NA
Manganese	180	13.7	NA	4.1	NA	6.8	NA	8.2	NA	5.8	NA	9.2	NA	10.8	NA	5.5 J	NA	5.2 U	NA	10.2 J	NA	9.5	NA	11	NA
Mercury	2.3	0.081	NA	0.02 J	NA	0.03 J	NA	0.17 U	NA	0.19 U	NA	0.54 U	NA	0.47 U	NA	0.098 U	NA	0.015 J	NA	0.037 J	NA	0.12 U	NA	0.02 J	NA
Nickel	160	1.21	NA	3.8 U	NA	3.2 U	NA	0.74 J	NA	0.56 J	NA	4.5 U	NA	4 U	NA	0.53 J	NA	0.8 J	NA	1.2 J	NA	1.5 J	NA	2 J	NA
Potassium	--	116	NA	67.6 J	NA	114 J	NA	149 J	NA	104 J	NA	331 J	NA	152 J	NA	96.9 J	NA	144 J	NA	162 J	NA	118 J	NA	179 J	NA
Selenium	39	0.563	NA	3.3 U	NA	0.32 J	NA	2.7 U	NA	2.8 U	NA	3.9 U	NA	3.5 U	NA	3 U	NA	2.9 U	NA	3.4 U	NA	0.45 J	NA	0.43 J	NA
Silver	39	0.14	NA	0.95 U	NA	0.8 U	NA	0.77 U	NA	0.79 U	NA	1.1 U	NA	0.99 U	NA	0.85 U	NA	0.82 U	NA	0.97 U	NA	1 U	NA	0.89 U	NA
Sodium	--	80.9	NA	474 U	NA	399 U	NA	387 U	NA	395 U	NA	22.1 J	NA	12.1 J	NA	9.8 J	NA	13 J	NA	18.3 J	NA	33.5 J	NA	39.9 J	NA
Vanadium	7.8	8.9	NA	6.3	NA	5.6	NA	8.1	NA	5.4	NA	10.3	NA	10.6	NA	4.8	NA	14	NA	12.3	NA	6.9	NA	8	NA
Zinc	2,300	10.8	NA	2.4 J	NA	2 J	NA	4.6 U	NA	4.7 U	NA	3.2 J	NA	2 J	NA	1.9 J	NA	2.1 J	NA	2.9 J	NA	9.6	NA	21.6	NA
Wet Chemistry (MG_KG)																									
No Detections																									

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	R04-L12	MR04-L13		MR04-L14		MR04-L16		MR04-L17				MR04-L18		MR04-L19		MR04-M01		MR04-M02		MR04-M03	
Sample ID			MR04-L12-0-1-07C	MR04-L13-07C	MR04-L13-0-1-07C	MR04-L14-07C	MR04-L14-0-1-07C	MR04-L16-07C	MR04-L16-0-1-07C	MR04-L17D-07C	MR04-L17D-0-1-07C	MR04-L17-07C	MR04-L17-0-1-07C	MR04-L18-07C	MR04-L18-0-1-07C	MR04-L19-07C	MR04-L19-0-1-07C	MR04-M01-07D	MR04-M01-0-1-07D	MR04-M02-07D	MR04-M02-0-1-07D	MR04-M03-07D	MR04-M03-0-1-07D
Sample Date			09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																							
Volatile Organic Compounds (UG_KG)																							
2-Butanone	2,200,000	--	NA	7 J	NA	14 J	NA	15 U	NA	8 J	NA	7 J	NA	15 J	NA	13 J	NA	6.4 J	NA	14 U	NA	8.1 J	NA
Acetone	1,400,000	--	NA	150 J	NA	320 J	NA	47 J	NA	100 J	NA	130 J	NA	360 J	NA	300 J	NA	160 J	NA	59 J	NA	290 J	NA
Benzene	640	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Chloroform	220	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Ethylbenzene	400,000	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Methyl acetate	2,200,000	--	NA	370 J	NA	370 J	NA	83 J	NA	160 J	NA	190 J	NA	620 J	NA	380 J	NA	15 U	NA	14 U	NA	12 U	NA
Methylcyclohexane	260,000	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 UJ	NA	14 U	NA	12 U	NA
Styrene	1,700,000	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Toluene	520,000	--	NA	17 J	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	8 J	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Trichloroethene	53	--	NA	16 UJ	NA	15 UJ	NA	15 U	NA	11 UJ	NA	13 U	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U	NA
Semi-volatile Organic Compounds (UG_KG)																							
Acetophenone	--	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	25 J	NA	360 U	NA	350 U
Anthracene	2,200,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzaldehyde	610,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzo(a)anthracene	620	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzo(a)pyrene	62	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzo(b)fluoranthene	620	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzo(g,h,i)perylene	230,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Benzo(k)fluoranthene	6,200	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Butylbenzylphthalate	1,200,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Caprolactam	3,100,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Carbazole	24,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Chrysene	62,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Di-n-butylphthalate	610,000	--	380 U	NA	38 J	NA	370 U	NA	390 U	NA	360 U	NA	21 J	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Fluoranthene	230,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Fluorene	270,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Indeno(1,2,3-cd)pyrene	620	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Phenanthrene	230,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U
Pyrene	230,000	--	380 U	NA	450 U	NA	370 U	NA	390 U	NA	360 U	NA	370 U	NA	480 U	NA	360 U	NA	440 UJ	NA	360 U	NA	350 U
bis(2-Ethylhexyl)phthalate	35,000	--	41 J	NA	82 J	NA	51 J	NA	200 J	NA	42 J	NA	54 J	NA	51 J	NA	230 J	NA	440 U	NA	69 J	NA	48 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																							
4,4'-DDD	2,400	--	3.8 U	NA	4.5 U	NA	3.7 U	NA	3.9 U	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U
4,4'-DDE	1,700	--	7.6	NA	31	NA	40	NA	12	NA	6.8	NA	9.1	NA	35	NA	19	NA	4.4 U	NA	2.8 J	NA	3.6 U
4,4'-DDT	1,700	--	4.9	NA	20 J	NA	16	NA	10	NA	3.6 J	NA	4.9	NA	41	NA	9	NA	4.4 U	NA	3.6 U	NA	3.6 U
Aldrin	29	--	2 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U
Aroclor-1254	110	--	38 U	NA	110	NA	37 U	NA	39 U	NA	36 U	NA	37 U	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U
Aroclor-1260	--	--	38 U	NA	46	NA	21 J	NA	39 U	NA	36 U	NA	37 U	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U
Dieldrin	30	--	3.8 U	NA	5.2 J	NA	19	NA	3.1 J	NA	3.6 U	NA	3.7 U	NA	8.8	NA	1.8 J	NA	4.4 U	NA	3.6 U	NA	3.6 U
Endosulfan I	37,000	--	2 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U
Endosulfan II	37,000	--	3.8 U	NA	4.5 U	NA	3.7 U	NA	3.9 U	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U
Endosulfan sulfate	37,000	--	3.8 U	NA	4.5 U	NA	3.7 U	NA	3.9 U	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U
Endrin	1,800	--	3.8 U	NA	4.5 U	NA	3.7 U	NA	3.9 U	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U
Endrin aldehyde	1,800	--	3.8 U	NA	4.5 U	NA	3.8 J	NA	2.6 J	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	4 U	NA	3.6 U
Endrin ketone	1,800	--	3.8 U	NA	4.5 U	NA	3.7 U	NA	3.9 U	NA	3.6 U	NA	3.7 U	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U
Heptachlor epoxide	53	--	2 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U
alpha-Chlordane	1,600	--	2 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U
gamma-Chlordane	1,600	--	2 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U
Explosives (UG_KG)																							
No Detections																							
Total Metals (MG_KG)																							
Aluminum	7,600	5,487	5,970	NA	5,850	NA	3,620	NA	3,980 J	NA	4,200 J	NA	5,320 J	NA	6,600 J	NA	4,260 J	NA	5,200	NA	4,960	NA	2,970
Antimony	3.1	0.447	0.24 J	NA	0.77 J	NA	0.33 J	NA	5.3 UJ	NA	5 UJ	NA	5 UJ	NA	6.5 UJ	NA	5 UJ	NA	5.9 UJ	NA	5 U	NA	4.9 U
Arsenic	0.39	0.626	2.2	NA	2.5	NA	1.6	NA	1.7	NA	1.5	NA	1.5	NA	2.2	NA	1.3	NA	1.7	NA	1.2	NA	1
Barium	540	14.5	12.9 J	NA	15.5 J	NA	11.5 J	NA	17.6	NA	9.1 J	NA	10.1 J	NA	13.4 J	NA	10.4 J	NA	12.6 J	NA	15.8 J	NA	12.4 J
Beryllium	15	0.103	0.42 U	NA	0.044 J	NA	0.02 J	NA	0.027 J	NA	0.025 J	NA	0.035 J	NA	0.047 J	NA	0.023 J	NA	0.065 J	NA	0.021 J	NA	0.41 U
Cadmium	3.7	0.033	0.068 J	NA	0.095 J	NA	0.069 J	NA	0.12 J	NA	0.034 J	NA	0.42 U	NA	0.54 U	NA	0.41 U	NA	0.49 U	NA	0.42 U	NA	0.41 U
Calcium	--	6,360	1,330	NA	3,820	NA	3,170	NA	2,400 J	NA	655 J	NA	754 J	NA	366 J	NA	1,090 J	NA	106 J	NA	755	NA	59.2 J
Chromium	22	6.05	7.1	NA	7.3	NA	4.6	NA	5.3 J	NA	5 J	NA	5.3 J	NA	7.6 J	NA	3.9 J	NA	6.1	NA	4.9	NA	3.1
Cobalt	140	0.294	0.25 J	NA	0.28 J	NA	0.2 J	NA	0.23 J	NA	0.22 J	NA	0.21 J	NA	0.32 J	NA	0.26 J	NA	0.23 J	NA	0.21 J	NA	0.14 J
Copper	310	4.83	2.6	NA	2.5 J	NA	1.6 J	NA	2.9	NA	0.92 J	NA	1.1 J	NA	2.7 J	NA	1 J	NA	0.83 J	NA	0.88 J	NA	0.74 J
Cyanide	120	--	2.9 U	NA	3.3 U	NA	2.6 U	NA	2.9 U	NA	2.6 U	NA	2.6 U	NA	3.5 U	NA	2.5 U	NA	3 U	NA	2.4 U	NA	2.3 U
Iron	2,300	3,245	6,240	NA	6,770	NA	3,910	NA	3,810 J	NA	3,580 J	NA	3,540 J	NA	4,830 J	NA	3,080 J	NA	3,250	NA	3,090	NA	2,650
Lead	400	12.3	6.8	NA	11.6	NA	20.5	NA	14.5	NA	5.4	NA	4.9	NA	9.5	NA	8.3	NA	6.4	NA	11.6	NA	6.5
Magnesium	--	238	188 J	NA	242 J	NA	194 J	NA	172 J	NA	145 J	NA	150 J	NA	189 J	NA	119 J	NA	148 J	NA	158 J	NA	73.2 J
Manganese	180	13.7	5.3	NA	9.2	NA	7.9	NA	11.2	NA	6.3	NA	5.9	NA	7.8	NA	11.3	NA	6.4	NA	17.4	NA	17
Mercury	2.3	0.081	0.016 J	NA	0.021 J	NA	0.011 J	NA	0.054	NA	0.088 U	NA	0.01 J	NA	0.015 J	NA	0.022 J	NA	0.11 U	NA	0.035 J	NA	0.018 J
Nickel	160	1.21	1.2 J	NA	1.6 J	NA	1.4 J	NA	1.8 J	NA	1.3 J	NA	1.4 J	NA	1.9 J	NA	1.4 J	NA	0.74 J	NA	3.3 U	NA	3.3 U
Potassium	--	116	203 J	NA	234 J	NA	124 J	NA	170 J	NA	150 J	NA	165 J	NA	211 J	NA	111 J	NA	198 J	NA	180 J	NA	113 J
Selenium	39	0.563	2.9 U	NA	3.7 U	NA	3 U	NA	0.28 J	NA	0.28 J	NA	0.33 J	NA	3.8 U	NA	2.9 U	NA	3.4 U	NA	0.25 J	NA	0.28 J
Silver	39	0.14	0.84 U	NA	1 U	NA	0.84 U	NA	0.88 U	NA	0.83 U	NA	0.84 U	NA	1.1 U	NA	0.83 U	NA	0.98 U	NA	0.83 U	NA	0.82 U
Sodium	--	80.9	6 J	NA	23.1 J	NA	11.5 J	NA	19.8 J	NA	16.6 J	NA	18.1 J	NA	18 J	NA	19.1 J	NA	490 U	NA	416 U	NA	410 U
Vanadium	7.8	8.5	11.8	NA	11.9	NA	9.2	NA	9	NA	7.2	NA	7.9	NA	10.7	NA	6.7	NA	10.2	NA	8.3	NA	6.7
Zinc	2,300	10.8	19.1	NA	13.9	NA	9.2	NA	23.7	NA	4.1 J	NA	3.4 J	NA	11	NA	5.4	NA	2.6 J	NA	3.3 J	NA	2.2 J
Wet Chemistry (MG_KG)																							
No Detections																							

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-M04		MR04-M05		MR04-M06		MR04-M07		MR04-M08		MR04-M09		MR04-M10	
Sample ID			MR04-M04-07C	MR04-M04-0-1-07C	MR04-M05-07C	MR04-M05-0-1-07C	MR04-M06-07D	MR04-M06-0-1-07D	MR04-M07-07D	MR04-M07-0-1-07D	MR04-M08-07D[1]	MR04-M08-0-1-07D[1]	MR04-M09-07D	MR04-M09-0-1-07D	MR04-M10-07D	MR04-M10-0-1-07D
Sample Date			09/12/07	09/12/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
2-Butanone	2,200,000	--	16 UJ	NA	11 U	NA	6.2 J	NA	8.6 J	NA	13 U	NA	13 U	NA	18 UJ	NA
Acetone	1,400,000	--	69 J	NA	43 J	NA	100 J	NA	200 J	NA	270 J	NA	58 J	NA	18 J	NA
Benzene	640	--	16 UJ	NA	11 U	NA	15 U	NA	13 U	NA	13 U	NA	13 U	NA	18 U	NA
Chloroform	220	--	16 UJ	NA	11 U	NA	6.4 J	NA	13 U	NA	13 U	NA	13 U	NA	18 U	NA
Ethylbenzene	400,000	--	16 UJ	NA	11 U	NA	15 U	NA	13 U	NA	13 U	NA	13 U	NA	18 UJ	NA
Methyl acetate	2,200,000	--	350 J	NA	22	NA	4.6 J	NA	13 U	NA	13 U	NA	13 U	NA	18 UJ	NA
Methylcyclohexane	260,000	--	16 UJ	NA	11 U	NA	15 U	NA	13	NA	13 U	NA	13 U	NA	18 UJ	NA
Styrene	1,700,000	--	16 UJ	NA	490 J	NA	15 U	NA	13 U	NA	13 U	NA	13 U	NA	18 UJ	NA
Toluene	520,000	--	16 UJ	NA	9 J	NA	15 U	NA	13 U	NA	13 U	NA	13 U	NA	18 UJ	NA
Trichloroethene	53	--	16 UJ	NA	11 U	NA	15 U	NA	13 U	NA	13 U	NA	13 U	NA	18	NA
Semi-volatile Organic Compounds (UG_KG)																
Acetophenone	--	--	NA	430 U	NA	21 J	NA	460 U	NA	350 U	NA	30 J	NA	19 J	NA	17 J
Anthracene	2,200,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzaldehyde	610,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzo(a)anthracene	620	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzo(a)pyrene	62	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzo(b)fluoranthene	620	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzo(g,h,i)perylene	230,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Benzo(k)fluoranthene	6,200	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Butylbenzylphthalate	1,200,000	--	NA	430 U	NA	380 U	NA	460 U	NA	22 J	NA	370 U	NA	380 U	NA	24 J
Caprolactam	3,100,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Carbazole	24,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Chrysene	62,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Di-n-butylphthalate	610,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	23 J	NA	360 U
Fluoranthene	230,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Fluorene	270,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Indeno(1,2,3-cd)pyrene	620	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Phenanthrene	230,000	--	NA	430 U	NA	380 U	NA	460 U	NA	350 U	NA	370 U	NA	380 U	NA	360 U
Pyrene	230,000	--	NA	430 U	NA	380 U	NA	460 UJ	NA	350 U	NA	370 U	NA	380 U	NA	360 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	430 U	NA	380 U	NA	460 U	NA	59 J	NA	370 U	NA	380 U	NA	360 U
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	2,400	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	3.1 J	NA	5.8	NA	3.6 U
4,4'-DDE	1,700	--	NA	2.6 J	NA	3.8 U	NA	4.9	NA	3.2 J	NA	95	NA	520	NA	6.7
4,4'-DDT	1,700	--	NA	2.2 J	NA	3.8 U	NA	2.3 J	NA	3.5 U	NA	45 J	NA	230	NA	4.9
Aldrin	29	--	NA	2.2 U	NA	2 U	NA	2.4 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U
Aroclor-1254	110	--	NA	43 U	NA	38 U	NA	46 U	NA	35 U	NA	37 U	NA	37 U	NA	36 U
Aroclor-1260	--	--	NA	43 U	NA	38 U	NA	46 U	NA	35 U	NA	110	NA	38	NA	36 U
Dieldrin	30	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	4.5 J	NA	12	NA	2.1 J
Endosulfan I	37,000	--	NA	2.2 U	NA	2 U	NA	2.4 U	NA	1.8 U	NA	1.3 J	NA	1.9 U	NA	1.9 U
Endosulfan II	37,000	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	2.5 J	NA	3.7 U	NA	3.6 U
Endosulfan sulfate	37,000	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.6 U
Endrin	1,800	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	3.6 J	NA	3.7 U	NA	3.6 U
Endrin aldehyde	1,800	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.6 U	NA	4.6 J	NA	3.7 U	NA	3.6 U
Endrin ketone	1,800	--	NA	4.3 U	NA	3.8 U	NA	4.6 U	NA	3.5 U	NA	3.7 U	NA	2.9 J	NA	3.6 U
Heptachlor epoxide	53	--	NA	2.2 U	NA	2 U	NA	2.4 U	NA	1.8 U	NA	3.3 J	NA	2 J	NA	1.9 U
alpha-Chlordane	1,600	--	NA	2.2 U	NA	2 U	NA	2.4 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U
gamma-Chlordane	1,600	--	NA	2.2 U	NA	2 U	NA	2.4 U	NA	1.8 U	NA	6.7 J	NA	1.6 J	NA	1.9 U
Explosives (UG_KG)																
No Detections																
Total Metals (MG_KG)																
Aluminum	7,600	5,487	NA	2,600	NA	6,840	NA	3,850	NA	3,680	NA	2,900	NA	4,150	NA	3,630
Antimony	3.1	0.447	NA	5.7 UJ	NA	0.31 J	NA	6.3 UJ	NA	4.8 U	NA	5 UJ	NA	5.2 UJ	NA	5 UJ
Arsenic	0.39	0.626	NA	1.2	NA	1.5	NA	1.2	NA	0.99	NA	1.5	NA	1.4	NA	1.7
Barium	540	14.5	NA	18.3 J	NA	35.7	NA	12.3 J	NA	8.4 J	NA	32.3	NA	14.7 J	NA	15.2 J
Beryllium	15	0.103	NA	0.48 U	NA	0.058 J	NA	0.077 J	NA	0.018 J	NA	0.036 J	NA	0.037 J	NA	0.039 J
Cadmium	3.7	0.033	NA	0.48 U	NA	0.42 U	NA	0.53 U	NA	0.4 U	NA	0.072 J	NA	0.037 J	NA	0.18 J
Calcium	--	6,360	NA	307 J	NA	151 J	NA	228 J	NA	404 U	NA	1,540	NA	516	NA	5,680
Chromium	22	6.05	NA	2.6 J	NA	9.1 J	NA	4.3	NA	4	NA	3.9	NA	5.3	NA	5.8
Cobalt	140	0.294	NA	0.088 J	NA	0.25 J	NA	0.28 J	NA	0.19 J	NA	0.19 J	NA	0.23 J	NA	0.3 J
Copper	310	4.83	NA	0.86 J	NA	1.5 J	NA	0.66 J	NA	0.61 J	NA	3.7	NA	3.7	NA	3.7
Cyanide	120	--	NA	3.2 U	NA	2.8 U	NA	3.3 U	NA	2.6 U	NA	2.7 U	NA	2.5 U	NA	2.3 U
Iron	2,300	3,245	NA	2,480	NA	4,980	NA	2,760	NA	2,600	NA	2,880	NA	3,810	NA	3,680
Lead	400	12.3	NA	7	NA	6	NA	9.3	NA	5.2	NA	14.1	NA	12.1	NA	38.9
Magnesium	--	238	NA	476 U	NA	226 J	NA	111 J	NA	92.5 J	NA	147 J	NA	134 J	NA	204 J
Manganese	180	13.7	NA	15.3 J	NA	6.9 J	NA	6.4	NA	12.7	NA	14.5	NA	6.8	NA	14.3
Mercury	2.3	0.081	NA	0.024 J	NA	0.11 U	NA	0.21 U	NA	0.014 J	NA	0.2 U	NA	0.18 U	NA	0.19 U
Nickel	160	1.21	NA	0.68 J	NA	1.1 J	NA	0.77 J	NA	3.2 U	NA	0.87 J	NA	1.1 J	NA	1.5 J
Potassium	--	116	NA	94.8 J	NA	302 J	NA	152 J	NA	134 J	NA	153 J	NA	162 J	NA	164 J
Selenium	39	0.563	NA	3.3 U	NA	3 U	NA	3.7 U	NA	0.22 J	NA	2.9 U	NA	3 U	NA	2.9 U
Silver	39	0.14	NA	0.95 U	NA	0.85 U	NA	1.1 U	NA	0.81 U	NA	0.84 U	NA	0.86 U	NA	0.83 U
Sodium	--	80.9	NA	13.6 J	NA	20.3 J	NA	529 U	NA	404 U	NA	418 U	NA	431 U	NA	414 U
Vanadium	7.8	8.9	NA	6	NA	14.2	NA	6.8	NA	7.3	NA	7.4	NA	8.3	NA	7.8
Zinc	2,300	10.8	NA	44.2	NA	3.1 J	NA	5.7 J	NA	2.1 J	NA	9.1 J	NA	6.4 J	NA	20.2 J
Wet Chemistry (MG_KG)																
No Detections																

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-M11		MR04-M12		MR04-M13		MR04-M14		MR04-M15		MR04-M16		MR04-M17		MR04-M18		MR04-M19		MR04-N01		MR04-N02		MR04-N03	
Sample ID			MR04-M11-07D	MR04-M11-0-1-07D	MR04-M12-07D	MR04-M12-0-1-07D	MR04-M13-07C	MR04-M13-0-1-07C	MR04-M14-07C[1]	MR04-M14-0-1-07C[1]	MR04-M15-07C	MR04-M15-0-1-07C	MR04-M16-07C	MR04-M16-0-1-07C	MR04-M17-07C	MR04-M17-0-1-07C	MR04-M18-07C	MR04-M18-0-1-07C	MR04-M19-07C	MR04-M19-0-1-07C	MR04-N01-07D	MR04-N01-0-1-07D	MR04-N02-07C	MR04-N02-0-1-07C	MR04-N03-07D	MR04-N03-0-1-07D
Sample Date			10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	10/17/07	10/17/07	09/12/07	09/12/07	10/17/07	10/17/07
Chemical Name																										
Volatile Organic Compounds (UG_KG)																										
2-Butanone	2,200,000	--	13 U	NA	15 U	NA	11 U	NA	9.4 J	NA	15 U	NA	13 U	NA	16 U	NA	14 U	NA	19 U	NA	7.2 J	NA	12 UJ	NA	11 U	NA
Acetone	1,400,000	--	18 J	NA	46 J	NA	11 U	NA	110	NA	130	NA	40 J	NA	50 J	NA	120 J	NA	480 J	NA	220 J	NA	320 J	NA	29 J	NA
Benzene	640	--	13 U	NA	15 U	NA	11 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA
Carbon disulfide	36,000	--	13 U	NA	15 U	NA	11 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA
Chloroform	220	--	13 U	NA	1.6 J	NA	11 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA
Methyl acetate	2,200,000	--	13 U	NA	15 U	NA	11 U	NA	4.8 J	NA	10 J	NA	54 J	NA	110 J	NA	35 J	NA	47 J	NA	7.9 J	NA	280 J	NA	11 U	NA
Styrene	1,700,000	--	13 U	NA	15 U	NA	11 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ	NA	19 UJ	NA	1.8 J	NA	12 UJ	NA	11 U	NA
Toluene	520,000	--	13 U	NA	15 U	NA	11 U	NA	10 U	NA	6 J	NA	13 UJ	NA	16 UJ	NA	14 UJ	NA	3 J	NA	16 U	NA	12 UJ	NA	11 U	NA
Semi-volatile Organic Compounds (UG_KG)																										
Acetophenone	--	--	NA	24 J	NA	450 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA	510 U	NA	460 U	NA	370 U	NA	340 U
Butylbenzylphthalate	1,200,000	--	NA	30 J	NA	450 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	22 J	NA	510 U	NA	460 U	NA	370 U	NA	30 J
Di-n-butylphthalate	610,000	--	NA	71 J	NA	35 J	NA	380 U	NA	20 J	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA	510 U	NA	460 U	NA	370 U	NA	340 U
Phenol	1,800,000	--	NA	410 U	NA	450 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA	510 U	NA	460 U	NA	370 U	NA	29 J
bis(2-Ethylhexyl)phthalate	35,000	--	NA	410 U	NA	450 U	NA	380 U	NA	380 U	NA	77 J	NA	25 J	NA	41 J	NA	73 J	NA	290 J	NA	460 U	NA	370 U	NA	80 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																										
4,4'-DDD	2,400	--	NA	4.1 U	NA	4.5 U	NA	3.8 U	NA	0.44 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
4,4'-DDE	1,700	--	NA	13	NA	13	NA	3 J	NA	4.6 J	NA	5.6	NA	32	NA	4.6 U	NA	14	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
4,4'-DDT	1,700	--	NA	8.3	NA	13 J	NA	6.1	NA	4.6 J	NA	3.7 J	NA	28	NA	4.6 U	NA	7.6	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
Dieldrin	30	--	NA	8.5	NA	7.4	NA	3.8 U	NA	0.73 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
Endrin	1,800	--	NA	4.1 U	NA	4.5 U	NA	3.8 U	NA	1.7 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
Endrin aldehyde	1,800	--	NA	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	4.9 U	NA	3.8 J	NA	4.6 U	NA	4.5	NA	3.2 J	NA	4.6 U	NA	2 J	NA	3.4 U
Endrin ketone	1,800	--	NA	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U
alpha-Chlordane	1,600	--	NA	2.1 U	NA	1.3 J	NA	1.9 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U
Explosives (UG_KG)																										
3-Nitrotoluene	73,000	--	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Total Metals (MG_KG)																										
Aluminum	7,600	5,487	NA	2,850	NA	3,910	NA	9,440	NA	7,920	NA	3,500	NA	3,490	NA	2,990	NA	4,130	NA	3,170	NA	2,700	NA	2,760	NA	1,470
Antimony	3.1	0.447	NA	5.7 UJ	NA	0.33 J	NA	5.2 UJ	NA	5.2 UJ	NA	6.8 UJ	NA	0.43 J	NA	6 UJ	NA	0.3 J	NA	0.41 J	NA	6.3 UJ	NA	0.27 J	NA	4.6 U
Arsenic	0.39	0.626	NA	0.88 J	NA	1.2	NA	2.4	NA	2.4	NA	1.3 J	NA	0.82 J	NA	0.7 J	NA	1.2	NA	1.6	NA	0.63 J	NA	0.79 J	NA	0.53 J
Barium	540	14.5	NA	17.9 J	NA	12.2 J	NA	14.4 J	NA	16.4 J	NA	12.9 J	NA	32.3	NA	11.5 J	NA	11.2 J	NA	6.1 J	NA	15.1 J	NA	11.4 J	NA	5 J
Beryllium	15	0.103	NA	0.035 J	NA	0.044 J	NA	0.059 J	NA	0.075 J	NA	0.041 J	NA	0.073 J	NA	0.062 J	NA	0.066 J	NA	0.6 U	NA	0.031 J	NA	0.038 J	NA	0.38 U
Cadmium	3.7	0.033	NA	0.071 J	NA	0.04 J	NA	0.064 J	NA	0.052 J	NA	0.046 J	NA	0.089 J	NA	0.039 J	NA	0.037 J	NA	0.044 J	NA	0.53 U	NA	0.42 U	NA	0.38 U
Calcium	--	6,360	NA	1,320	NA	616	NA	4,100	NA	440	NA	176 J	NA	229 J	NA	699	NA	191 J	NA	66.6 J	NA	156 J	NA	64.9 J	NA	383 U
Chromium	22	6.05	NA	3.5	NA	4.9	NA	9	NA	8.7	NA	3	NA	3.8	NA	2	NA	2.8	NA	3.1	NA	2.3	NA	2.8 J	NA	1.9
Cobalt	140	0.294	NA	0.12 J	NA	0.2 J	NA	0.36 J	NA	0.3 J	NA	0.17 J	NA	0.18 J	NA	0.13 J	NA	0.14 J	NA	0.12 J	NA	0.11 J	NA	0.22 J	NA	0.12 J
Copper	310	4.83	NA	3.7	NA	7.6	NA	1.5 J	NA	1.4 J	NA	0.75 U	NA	1.3 U	NA	1.3 U	NA	0.78 J	NA	0.62 J	NA	0.47 J	NA	0.52 J	NA	0.36 J
Iron	2,300	3,245	NA	2,150	NA	2,930	NA	5,860 J	NA	4,850 J	NA	2,030 J	NA	1,920 J	NA	1,420 J	NA	2,310	NA	2,460	NA	1,270	NA	2,310	NA	1,130
Lead	400	12.3	NA	18.3	NA	15.6	NA	9.5	NA	8.2	NA	11.2	NA	18.8	NA	7	NA	7.1	NA	8.2	NA	4.5	NA	4.7	NA	5.5
Magnesium	--	238	NA	112 J	NA	143 J	NA	323 J	NA	265 J	NA	98.9 J	NA	95.1 J	NA	84.1 J	NA	116 J	NA	99.9 J	NA	64.1 J	NA	82.7 J	NA	60.6 J
Manganese	180	13.7	NA	4.4	NA	7.4	NA	10.5 J	NA	12.6 J	NA	7.2	NA	14.8	NA	14.6	NA	6.4	NA	5.5	NA	8.7	NA	6.1 J	NA	9.3
Mercury	2.3	0.081	NA	0.23 U	NA	0.2 U	NA	0.041 J	NA	0.046 J	NA	0.023 J	NA	0.023 J	NA	0.025 J	NA	0.018 J	NA	0.056 J	NA	0.26 U	NA	0.011 J	NA	0.01 J
Nickel	160	1.21	NA	0.91 J	NA	1 J	NA	2.2 J	NA	1.5 J	NA	0.93 J	NA	0.97 J	NA	0.97 J	NA	1.1 J	NA	0.79 J	NA	0.81 J	NA	0.67 J	NA	3.1 U
Potassium	--	116	NA	105 J	NA	143 J	NA	239 J	NA	317 J	NA	84.3 J	NA	69.1 J	NA	28.4 J	NA	66.4 J	NA	82 J	NA	51.9 J	NA	106 J	NA	66.2 J
Selenium	39	0.563	NA	3.4 U	NA	3.6 U	NA	0.27 J	NA	3 U	NA	3.9 U	NA	2.7 U	NA	3.5 U	NA	3.3 U	NA	4.2 U	NA	3.7 U	NA	3 U	NA	2.7 U
Sodium	--	80.9	NA	479 U	NA	514 U	NA	27.5 J	NA	15.1 J	NA	12.1 J	NA	15.1 J	NA	11.8 J	NA	16.7 J	NA	22.3 J	NA	526 U	NA	11.1 J	NA	383 U
Vanadium	7.8	8.9	NA	5.5	NA	7.6	NA	13	NA	13.1	NA	5.4 J	NA	4.3 J	NA	3.1 J	NA	5.5	NA	6.4	NA	3.4 J	NA	4.8	NA	3.5 J
Zinc	2,300	10.8	NA	9.6 J	NA	19.5 J	NA	7.3	NA	5.6	NA	14.6	NA	24.4	NA	8.2	NA	4 J	NA	2.3 J	NA	2.7 J	NA	3.2 J	NA	1.4 J
Wet Chemistry (MG_KG)																										
No Detections																										

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported

Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-N04		MR04-N05		MR04-N06		MR04-N07		MR04-N08		MR04-N09		MR04-N10		MR04-N11		MR04-N12		MR04-N13		MR04-N14		MR04-N15	
Sample ID			MR04-N04-07D	MR04-N04-0-1-07D	MR04-N05-07D	MR04-N05-0-1-07D	MR04-N06-07D	MR04-N06-0-1-07D	MR04-N07-07D	MR04-N07-0-1-07D	MR04-N08-07D	MR04-N08-0-1-07D	MR04-N09-07D	MR04-N09-0-1-07D	MR04-N10-07C	MR04-N10-0-1-07C	MR04-N11-07C	MR04-N11-0-1-07C	MR04-N12-07C	MR04-N12-0-1-07C	MR04-N13-07C	MR04-N13-0-1-07C	MR04-N14-07C	MR04-N14-0-1-07C	MR04-N15-07C	MR04-N15-0-1-07C
Sample Date			10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07
Chemical Name																										
Volatile Organic Compounds (UG_KG)																										
2-Butanone	2,200,000	--	12 J	NA	6.5 J	NA	7.8 J	NA	14 U	NA	13 U	NA	13 U	NA	22	NA	14 U	NA	10 J	NA	11 U	NA	13 J	NA	12 J	NA
Acetone	1,400,000	--	100 J	NA	110 J	NA	190 J	NA	77	NA	27 J	NA	21 J	NA	460 J	NA	14 U	NA	100 J	NA	31 J	NA	370 J	NA	580 J	NA
Benzene	640	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA
Carbon disulfide	36,000	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA
Chloroform	220	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA
Methyl acetate	2,200,000	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U	NA	13 U	NA	7.3 J	NA	14 U	NA	68 J	NA	19	NA	190 J	NA	280	NA
Styrene	1,700,000	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	1.8 J	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA
Toluene	520,000	--	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	3 J	NA	17 U	NA
Semi-volatile Organic Compounds (UG_KG)																										
Acetophenone	--	--	NA	430 U	NA	350 U	NA	43 J	NA	30 J	NA	440 U	NA	26 J	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U
Butylbenzylphthalate	1,200,000	--	NA	430 U	NA	19 J	NA	32 J	NA	21 J	NA	20 J	NA	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U
Di-n-butylphthalate	610,000	--	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U
Phenol	1,800,000	--	NA	34 J	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA	430 U	NA	370 U	NA	450 U	NA	25 J	NA	410 U	NA	380 U	NA	370 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	71 J	NA	60 J	NA	490 U	NA	400 U	NA	440 U	NA	430 U	NA	370 U	NA	450 U	NA	41 J	NA	33 J	NA	38 J	NA	37 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																										
4,4'-DDD	2,400	--	NA	4.3 U	NA	3.5 U	NA	5.9	NA	4 U	NA	2.9 J	NA	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U
4,4'-DDE	1,700	--	NA	11	NA	2 J	NA	330	NA	6.3	NA	82	NA	14	NA	3.7 U	NA	0.82 J	NA	3.2 J	NA	2.8 J	NA	3.8 U	NA	3.7 U
4,4'-DDT	1,700	--	NA	2.6 J	NA	3.5 U	NA	170	NA	4.5	NA	34	NA	7.8	NA	3.7 U	NA	4.5 UJ	NA	3.2 J	NA	3.7 J	NA	3.8 U	NA	3.7 U
Dieldrin	30	--	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U
Endrin	1,800	--	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U
Endrin aldehyde	1,800	--	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	3.3 J	NA	2.4 J	NA	3.8 U	NA	3.7 U
Endrin ketone	1,800	--	NA	4.3 U	NA	3.5 U	NA	4.8 J	NA	4 U	NA	4.4 U	NA	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U
alpha-Chlordane	1,600	--	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U
Explosives (UG_KG)																										
3-Nitrotoluene	73,000	--	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Total Metals (MG_KG)																										
Aluminum	7,600	5,487	NA	2,770	NA	2,230	NA	3,870	NA	4,970	NA	2,160	NA	4,370	NA	9,980	NA	8,560	NA	7,160	NA	5,320	NA	2,900	NA	4,090
Antimony	3.1	0.447	NA	5.7 U	NA	4.8 U	NA	6.3 UJ	NA	5.4 UJ	NA	5.8 UJ	NA	6 UJ	NA	5.2 UJ	NA	0.33 J	NA	6 UJ	NA	0.28 J	NA	4.9 UJ	NA	5.2 UJ
Arsenic	0.39	0.626	NA	1.3	NA	0.89	NA	1.4	NA	1.1	NA	0.96 J	NA	1	NA	2.4	NA	2.2	NA	1.9 J	NA	1.1 J	NA	0.68 J	NA	0.77 J
Barium	540	14.5	NA	13.1 J	NA	9.7 J	NA	15.6 J	NA	16 J	NA	21	NA	14.1 J	NA	15.2 J	NA	12.5 J	NA	18.7 J	NA	21.2	NA	13.7 J	NA	13.8 J
Beryllium	15	0.103	NA	0.082 J	NA	0.4 U	NA	0.025 J	NA	0.067 J	NA	0.015 J	NA	0.026 J	NA	0.13 J	NA	0.041 J	NA	0.082 J	NA	0.11 J	NA	0.07 J	NA	0.1 J
Cadmium	3.7	0.033	NA	0.48 U	NA	0.4 U	NA	0.051 J	NA	0.45 U	NA	0.48 U	NA	0.5 U	NA	0.054 J	NA	0.5 U	NA	0.047 J	NA	0.059 J	NA	0.031 J	NA	0.43 U
Calcium	--	6,360	NA	287 J	NA	156 J	NA	171 J	NA	202 J	NA	336 J	NA	360 J	NA	605	NA	1,010 J	NA	174 J	NA	729	NA	231 J	NA	142 J
Chromium	22	6.05	NA	3.8	NA	2.8	NA	4.2	NA	4.1	NA	2.9	NA	3.7	NA	11.9	NA	11	NA	7.6	NA	4.7	NA	2	NA	2.1
Cobalt	140	0.294	NA	0.19 J	NA	0.11 J	NA	0.18 J	NA	0.24 J	NA	0.11 J	NA	0.16 J	NA	0.52 J	NA	0.31 J	NA	0.3 J	NA	0.19 J	NA	0.15 J	NA	0.12 J
Copper	310	4.83	NA	0.74 J	NA	0.53 J	NA	0.87 J	NA	0.85 J	NA	0.97 J	NA	0.66 J	NA	2.2 J	NA	1.5 J	NA	1.3 U	NA	1.5 J	NA	1.6 J	NA	0.99 J
Iron	2,300	3,245	NA	1,790	NA	1,990	NA	2,920	NA	2,890	NA	1,720	NA	2,420	NA	6,060 J	NA	4,840	NA	3,700 J	NA	2,780 J	NA	1,310	NA	1,560
Lead	400	12.3	NA	8.6	NA	4	NA	8.7	NA	6.3	NA	4.8	NA	5.3	NA	6.8	NA	6.7	NA	8.6	NA	6.4	NA	5.5	NA	5.1
Magnesium	--	238	NA	146 J	NA	79.4 J	NA	118 J	NA	91.8 J	NA	66.8 J	NA	77.9 J	NA	313 J	NA	299 J	NA	184 J	NA	145 J	NA	67.9 J	NA	86.6 J
Manganese	180	13.7	NA	10.6	NA	11.9	NA	6.4	NA	6.6	NA	7.2	NA	6.8	NA	11.9 J	NA	8.5 J	NA	13.1	NA	32	NA	22.2	NA	14.2
Mercury	2.3	0.081	NA	0.021 J	NA	0.0055 J	NA	0.27 U	NA	0.2 U	NA	0.12 U	NA	0.19 U	NA	0.089	NA	0.11 U	NA	0.027 J	NA	0.017 J	NA	0.086 U	NA	0.02 J
Nickel	160	1.21	NA	3.8 U	NA	3.2 U	NA	0.78 J	NA	1.5 J	NA	0.55 J	NA	1.2 J	NA	2.2 J	NA	1.6 J	NA	1.5 J	NA	1.4 J	NA	0.82 J	NA	1 J
Potassium	--	116	NA	138 J	NA	96.3 J	NA	155 J	NA	109 J	NA	94 J	NA	105 J	NA	403 J	NA	339 J	NA	196 J	NA	85.3 J	NA	26.1 J	NA	33.3 J
Selenium	39	0.563	NA	0.24 J	NA	0.44 J	NA	3.7 U	NA	3.1 U	NA	3.4 U	NA	3.5 U	NA	3 U	NA	0.45 J	NA	0.33 J	NA	2.9 U	NA	2.9 U	NA	3 U
Sodium	--	80.9	NA	476 U	NA	397 U	NA	527 U	NA	448 U	NA	480 U	NA	498 U	NA	19.9 J	NA	15.8 J	NA	12.2 J	NA	19.3 J	NA	10.3 J	NA	8 J
Vanadium	7.8	8.9	NA	5.5	NA	5.3	NA	7.4	NA	7.3	NA	4.4 J	NA	6.1	NA	15.4	NA	16	NA	10.5 J	NA	6 J	NA	2.3 J	NA	3.1 J
Zinc	2,300	10.8	NA	3.6 J	NA	1.9 J	NA	3.3 J	NA	3.2 J	NA	2 J	NA	2.4 J	NA	4.5 J	NA	3.8 J	NA	6.5	NA	6.2	NA	26.4	NA	5.1 J
Wet Chemistry (MG_KG)																										
No Detections																										

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-N16		MR04-O01		MR04-O02		MR04-O03		MR04-O04		MR04-O05		MR04-O06		MR04-O07		MR04-O08		MR04-O09		MR04-P01		MR04-P02	
Sample ID			MR04-N16-07C	MR04-N16-0-1-07C	MR04-O01-07C	MR04-O01-0-1-07C	MR04-O02-07C	MR04-O02-0-1-07C	MR04-O03-07C	MR04-O03-0-1-07C	MR04-O04-07C[1]	MR04-O04-0-1-07C[1]	MR04-O05-07C	MR04-O05-0-1-07C	MR04-O06-07C	MR04-O06-0-1-07C	MR04-O07-07C	MR04-O07-0-1-07C	MR04-O08-07C	MR04-O08-0-1-07C	MR04-O09-07C	MR04-O09-0-1-07C	MR04-P01-07C	MR04-P01-0-1-07C	MR04-P02-07C	MR04-P02-0-1-07C
Sample Date			09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																										
Volatile Organic Compounds (UG_KG)																										
2-Butanone	2,200,000	--	31 J	NA	55 J	NA	66 J	NA	25	NA	37 J	NA	37 J	NA	14 U	NA	40	NA	6.6 J	NA	17	NA	50 J	NA	6.2 J	NA
Acetone	1,400,000	--	910 J	NA	1,000 J	NA	2,100 J	NA	470 J	NA	860 J	NA	670 J	NA	200 J	NA	320 J	NA	320 J	NA	480 J	NA	1,100 J	NA	650 J	NA
Benzene	640	--	17 UJ	NA	12 U	NA	12 U	NA	11 U	NA	12 U	NA	13 U	NA	1.1 J	NA	16 U	NA	14 U	NA	14 U	NA	29 U	NA	13 U	NA
Carbon disulfide	36,000	--	17 U	NA	12 U	NA	12 U	NA	11 U	NA	12 U	NA	13 U	NA	6.1 J	NA	16 U	NA	14 U	NA	14 U	NA	29 U	NA	13 U	NA
Chloroform	220	--	17 U	NA	12 U	NA	12 U	NA	11 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U	NA	29 U	NA	13 U	NA
Methyl acetate	2,200,000	--	1,700 J	NA	12 U	NA	12 U	NA	11 U	NA	28 J	NA	16 J	NA	6.7 J	NA	59	NA	6 J	NA	14 U	NA	130 J	NA	18	NA
Styrene	1,700,000	--	17 UJ	NA	1.8 J	NA	9.3 J	NA	11 U	NA	12 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U	NA	29 UJ	NA	13 U	NA
Toluene	520,000	--	11 J	NA	1.2 J	NA	1.1 J	NA	11 U	NA	1.2 J	NA	13 UJ	NA	1.8 J	NA	11 J	NA	14 U	NA	2.2 J	NA	12 J	NA	1.9 J	NA
Semi-volatile Organic Compounds (UG_KG)																										
Acetophenone	--	--	NA	370 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA	460 U	NA	430 U
Butylbenzylphthalate	1,200,000	--	NA	17 J	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA	460 U	NA	430 U
Di-n-butylphthalate	610,000	--	NA	22 J	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA	460 U	NA	430 U
Phenol	1,800,000	--	NA	370 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA	460 U	NA	430 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	49 J	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	370 U	NA	60 J	NA	430 U	NA	420 U	NA	450 U	NA	460 U	NA	68 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																										
4,4'-DDD	2,400	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA	4.6 UJ	NA	4.3 U
4,4'-DDE	1,700	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	2 J	NA	1.4 J	NA	4.9 U	NA	4.3 U	NA	0.74 J	NA	4.5 U	NA	4.6 UJ	NA	1.2 J
4,4'-DDT	1,700	--	NA	2.1 J	NA	3.7 U	NA	3.7 U	NA	2.3 J	NA	1.9 J	NA	2.7 J	NA	4.9 U	NA	3.5 J	NA	2.2 J	NA	4.5 U	NA	4.6 UJ	NA	1.7 J
Dieldrin	30	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA	4.6 UJ	NA	4.3 U
Endrin	1,800	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	3.8 U	NA	1.4 J	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA	4.6 UJ	NA	4.3 U
Endrin aldehyde	1,800	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA	4.6 UJ	NA	4.3 U
Endrin ketone	1,800	--	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA	4.6 UJ	NA	4.3 U
alpha-Chlordane	1,600	--	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA	2.3 UJ	NA	2.2 U
Explosives (UG_KG)																										
3-Nitrotoluene	73,000	--	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	130 J	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Total Metals (MG_KG)																										
Aluminum	7,600	5,487	NA	2,380	NA	2,930	NA	5,300	NA	4,870	NA	8,260	NA	4,390	NA	3,140	NA	3,520	NA	3,280	NA	3,700	NA	5,570	NA	4,760
Antimony	3.1	0.447	NA	0.45 J	NA	4.9 UJ	NA	5.1 UJ	NA	5.1 UJ	NA	5.1 UJ	NA	5 UJ	NA	6.7 UJ	NA	5.7 UJ	NA	5.8 UJ	NA	6.1 UJ	NA	6.2 UJ	NA	5.9 UJ
Arsenic	0.39	0.626	NA	1.3	NA	0.99	NA	1.5	NA	1.2	NA	2.5	NA	1	NA	1.2	NA	0.62 J	NA	0.68 J	NA	0.84 J	NA	1.4	NA	1.4
Barium	540	14.5	NA	7.8 J	NA	9.8 J	NA	15.9 J	NA	10.1 J	NA	10.9 J	NA	10.1 J	NA	8.4 J	NA	12.8 J	NA	12.7 J	NA	11.8 J	NA	8.9 J	NA	12.7 J
Beryllium	15	0.103	NA	0.44 U	NA	0.015 J	NA	0.053 J	NA	0.43 U	NA	0.073 J	NA	0.028 J	NA	0.019 J	NA	0.058 J	NA	0.043 J	NA	0.045 J	NA	0.024 J	NA	0.066 J
Cadmium	3.7	0.033	NA	0.039 J	NA	0.03 J	NA	0.034 J	NA	0.032 J	NA	0.042 J	NA	0.03 J	NA	0.56 U	NA	0.48 U	NA	0.49 U	NA	0.047 J	NA	0.52 U	NA	0.49 U
Calcium	--	6,360	NA	167 J	NA	168 J	NA	427 U	NA	428 U	NA	52.2 J	NA	60.7 J	NA	1,310	NA	87.2 J	NA	487 U	NA	77.5 J	NA	265 J	NA	182 J
Chromium	22	6.05	NA	5.2	NA	2.6	NA	4	NA	4.3	NA	9	NA	3.4	NA	3.6	NA	2.5	NA	2.2	NA	2.9	NA	5.1	NA	3.4
Cobalt	140	0.294	NA	0.3 J	NA	0.15 J	NA	0.18 J	NA	0.22 J	NA	0.38 J	NA	0.15 J	NA	0.2 J	NA	0.13 J	NA	0.14 J	NA	0.15 J	NA	0.2 J	NA	0.15 J
Copper	310	4.83	NA	2.1 J	NA	0.52 J	NA	0.55 J	NA	0.57 J	NA	1.4 J	NA	0.57 J	NA	1.2 J	NA	1.1 J	NA	0.83 J	NA	0.89 J	NA	0.73 J	NA	0.96 J
Iron	2,300	3,245	NA	4,280	NA	1,860 J	NA	2,810 J	NA	2,860 J	NA	5,110 J	NA	1,980 J	NA	1,930	NA	1,600	NA	1,630	NA	1,870 J	NA	2,750 J	NA	2,530
Lead	400	12.3	NA	20.1	NA	8.3	NA	6.2	NA	3.8	NA	7.7	NA	5.3	NA	6.3	NA	3.8	NA	3	NA	6.3	NA	7.8	NA	9.4
Magnesium	--	238	NA	95.2 J	NA	95.3 J	NA	126 J	NA	113 J	NA	213 J	NA	126 J	NA	110 J	NA	103 J	NA	95.6 J	NA	129 J	NA	169 J	NA	121 J
Manganese	180	13.7	NA	14.5	NA	8 J	NA	8.6 J	NA	9.3 J	NA	10.7 J	NA	10.2 J	NA	10.5	NA	23.4	NA	21.9	NA	18.1 J	NA	10.1 J	NA	10.6
Mercury	2.3	0.081	NA	0.025 J	NA	0.033 J	NA	0.045 J	NA	0.091 U	NA	0.033 J	NA	0.11 U	NA	0.034 J	NA	0.028 J	NA	0.0072 J	NA	0.12 U	NA	0.041 J	NA	0.012 J
Nickel	160	1.21	NA	1.8 J	NA	0.75 J	NA	1.1 J	NA	1.1 J	NA	1.8 J	NA	1 J	NA	1.1 J	NA	1.1 J	NA	1.1 J	NA	1.1 J	NA	1.2 J	NA	1.2 J
Potassium	--	116	NA	78.8 J	NA	95.1 J	NA	131 J	NA	139 J	NA	247 J	NA	97.7 J	NA	108 J	NA	55.9 J	NA	45.4 J	NA	77.4 J	NA	144 J	NA	72 J
Selenium	39	0.563	NA	3.1 U	NA	0.25 J	NA	0.21 J	NA	3 U	NA	0.26 J	NA	2.9 U	NA	0.43 J	NA	3.4 U	NA	3.4 U	NA	3.6 U	NA	3.6 U	NA	3.5 U
Sodium	--	80.9	NA	12.3 J	NA	12.6 J	NA	12.3 J	NA	8.9 J	NA	17.4 J	NA	9.5 J	NA	10.9 J	NA	11.5 J	NA	4.7 J	NA	15 J	NA	17.2 J	NA	15.3 J
Vanadium	7.8	8.9	NA	4.2 J	NA	5.3	NA	6.9	NA	7.3	NA	13.6	NA	5.6	NA	4.9 J	NA	3.1 J	NA	2.9 J	NA	3.8 J	NA	7.6	NA	5.3
Zinc	2,300	10.8	NA	5.9	NA	2.1 J	NA	2.3 J	NA	1.6 J	NA	3.7 J	NA	2.8 J	NA	5.9 J	NA	3.8 J	NA	3.2 J	NA	4 J	NA	3 J	NA	4.8 J
Wet Chemistry (MG_KG)																										
No Detections																										

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

Table 4-2
Phase II Surface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
Decision Units A01 - D06
September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	Camp Lejeune Background SS 2X Mean	MR04-P03		MR04-P04	
Sample ID			MR04-P03-07C	MR04-P03-0-1-07C	MR04-P04-07C	MR04-P04-0-1-07C
Sample Date			09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name						
Volatile Organic Compounds (UG_KG)						
2-Butanone	2,200,000	--	15 J	NA	37	NA
Acetone	1,400,000	--	1,200 J	NA	2,400 J	NA
Benzene	640	--	16 U	NA	37 U	NA
Carbon disulfide	36,000	--	16 U	NA	37 U	NA
Chloroform	220	--	16 U	NA	37 U	NA
Methyl acetate	2,200,000	--	64	NA	230	NA
Styrene	1,700,000	--	16 U	NA	37 UJ	NA
Toluene	520,000	--	6 J	NA	6 J	NA
Semi-volatile Organic Compounds (UG_KG)						
Acetophenone	--	--	NA	450 U	NA	410 U
Butylbenzylphthalate	1,200,000	--	NA	450 U	NA	410 U
Di-n-butylphthalate	610,000	--	NA	450 U	NA	410 U
Phenol	1,800,000	--	NA	450 U	NA	410 U
bis(2-Ethylhexyl)phthalate	35,000	--	NA	450 U	NA	68 J
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	2,400	--	NA	4.5 U	NA	4.1 U
4,4'-DDE	1,700	--	NA	4.5 U	NA	2.9 J
4,4'-DDT	1,700	--	NA	4.5 U	NA	2.5 J
Dieldrin	30	--	NA	4.5 U	NA	4.1 U
Endrin	1,800	--	NA	4.5 U	NA	4.1 U
Endrin aldehyde	1,800	--	NA	4.5 U	NA	4.1 U
Endrin ketone	1,800	--	NA	4.5 U	NA	4.1 U
alpha-Chlordane	1,600	--	NA	2.3 U	NA	2.1 U
Explosives (UG_KG)						
3-Nitrotoluene	73,000	--	NA	120 U	NA	120 U
Total Metals (MG_KG)						
Aluminum	7,600	5,487	NA	3,060	NA	3,000
Antimony	3.1	0.447	NA	6.1 UJ	NA	0.27 J
Arsenic	0.39	0.626	NA	0.68 J	NA	0.99
Barium	540	14.5	NA	7.7 J	NA	9.8 J
Beryllium	15	0.103	NA	0.026 J	NA	0.031 J
Cadmium	3.7	0.033	NA	0.51 U	NA	0.47 U
Calcium	--	6,360	NA	88.1 J	NA	91.9 J
Chromium	22	6.05	NA	2.7	NA	3.3
Cobalt	140	0.294	NA	0.15 J	NA	0.17 J
Copper	310	4.83	NA	0.79 J	NA	1.1 J
Iron	2,300	3,245	NA	1,550	NA	2,150
Lead	400	12.3	NA	3.9	NA	27.1
Magnesium	--	238	NA	86.5 J	NA	163 J
Manganese	180	13.7	NA	10.5	NA	4.1
Mercury	2.3	0.081	NA	0.013 J	NA	0.045 J
Nickel	160	1.21	NA	0.79 J	NA	0.96 J
Potassium	--	116	NA	58.4 J	NA	94.5 J
Selenium	39	0.563	NA	3.5 U	NA	3.3 U
Sodium	--	80.9	NA	13.5 J	NA	65.8 J
Vanadium	7.8	8.9	NA	3.5 J	NA	5.4
Zinc	2,300	10.8	NA	2.6 J	NA	3.4 J
Wet Chemistry (MG_KG)						
No Detections						

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value is biased low
[1] A duplicate sample was collected. Highest results reported
Organics- Shading represents exceedance of Region IX PRGs Soil Residential Adjusted Screening Criteria

Inorganics- Shading represents exceedance of BOTH Base Background and Region IX PRGs Soil Residential Adjusted Screening Criteria

TABLE 4-3
Subsurface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March 2006 and September 2007

Station ID	NCSSL (May 2005)	Camp Lejeune Background SB 2X Mean	MR04-SS01	MR04-SS03	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS09	MR04-IS11		MR04-IS12		MR04-IS13	MR04-IS14	MR04-IS15	MR04-IS16
Sample ID			MR04-SS01-0-4	MR04-SS03-8-12	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS09-2-4	MR04-IS11-2-4-07C	MR04-IS11D-2-4-07C	MR04-IS12-18-20-07C	MR04-IS12D-18-20-07C	MR04-IS13-12-14-07C	MR04-IS14-8-10-07C	MR04-IS15-13-15-07C	MR04-IS16-7-9-07C
Sample Date			03/14/06	03/15/06	03/15/06	03/15/06	03/14/06	03/15/06	03/15/06	09/13/07	09/13/07	09/13/07	09/13/07	09/12/07	09/13/06	09/12/07	09/11/07
Chemical Name																	
Volatile Organic Compounds (UG_KG)																	
Acetone	2,810	--	13 U	10 U	10 U	11 U	11 U	9.5 U	13 U	9 UJ	9 UJ	12 UJ	12 UJ	13 UJ	13 UJ	11 UJ	10 UJ
Methyl acetate	--	--	13 U	10 U	10 U	11 U	11 U	9.5 U	13 U	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U
Semi-volatile Organic Compounds (UG_KG)																	
Di-n-butylphthalate	24,800	--	410 U	62 J	390 U	390 U	420 U	390 U	440 U	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U
Fluoranthene	276,000	--	410 U	370 U	390 U	70	420 U	390 U	440 U	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U
Pyrene	286,000	--	410 U	370 U	390 U	79 J	420 U	390 U	440 U	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U
bis(2-Ethylhexyl)phthalate	6,670	--	410 U	260 J	72 J	390 U	200 J	240 J	90 J	33 J	39 J	32 J	41 J	510 U	48 J	420 U	400 U
Pesticide/Polychlorinated Biphenyls (UG_KG)																	
4,4'-DDD	129	--	4.1 U	9.8	3.9 U	3.9 U	4.2 U	3.9 U	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
4,4'-DDE	--	--	0.78 J	63	3.9 U	0.52 J	4.2 U	0.72 J	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
4,4'-DDT	1,360	--	0.78 J	34	3.9 U	0.4 J	4.2 U	0.49 J	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
Dieldrin	1.13	--	4.1 U	1.7 J	3.9 U	3.9 U	4.2 U	0.54 J	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
Endrin	440	--	4.1 U	3.7 U	3.9 U	3.9 U	4.2 U	0.65 J	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
Endrin aldehyde	--	--	4.1 U	3.7 U	3.9 U	3.9 U	4.2 U	3.9 U	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
Endrin ketone	--	--	4.1 U	3.7 U	3.9 U	3.9 U	4.2 U	3.9 U	4.4 U	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U
Heptachlor	2.3	--	0.26 J	0.22 J	2 U	1.9 U	2.1 U	0.49 J	2.2 U	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U
Explosives (UG_KG)																	
Nitrobenzene	--	--	110 J	68 J	100	100 U	57 J	100 U	100	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
Total Metals (MG_KG)																	
Aluminum	--	10,369	8,580	2,890	9,110	9,630	**15,000**	6,860	**26,300**	**14,500 J**	**15,600 J**	1,490 J	2,750 J	**13,000 J**	**13,700 J**	**11,700 J**	7,100
Antimony	5.42	0.36	0.61 UJ	0.54 U	0.47 U	0.57 U	**0.65 J**	0.59 U	0.65 U	**0.55 J**	**0.96 J**	4.9 UJ	5.6 UJ	6.9 UJ	5.3 UJ	5.6 UJ	5.6 UJ
Arsenic	5.24	2.12	1.9 UJ	0.49 U	**4.2**	**2.8**	1.1 J	1.5 J	**2.3**	**2.7 J**	**4.4 J**	0.29 J	0.5 J	**2.5 J**	**9.6 J**	0.95 J	1.5 J
Barium	848	16.6	**39.4**	33.5 U	29.7 U	35.5 U	33.8 U	36.7 U	40.9 U	**18.5 J**	**18.6 J**	5.3 J	8.9 J	**17.7 J**	14.5 J	14.7 J	10.4 J
Beryllium	3.38	0.165	0.95 U	0.053 J	0.084 J	**0.35 J**	0.84 U	0.084 J	**0.3 J**	0.056 J	**0.27 J**	0.41 U	0.47 U	0.12 J	0.12 J	0.07 J	0.037 J
Cadmium	0.95	0.023	0.076 U	0.067 U	0.059 U	0.071 U	0.068 U	0.073 U	0.082 U	0.45 U	**0.059 J**	0.41 U	0.47 U	0.57 U	0.44 U	0.47 U	0.46 U
Calcium	--	441	**2,530**	837 U	**887**	**1,890**	**944**	919 U	1,020 U	**1,380**	**1,390**	406 U	470 U	306 J	441 U	469 U	80.5 J
Chromium	27.2	14.5	6.2	7.5 J	10.3 J	10.6 J	**23.2**	7 J	**37.1 J**	**14.9 J**	**17.3 J**	2.6 J	3.7 J	**17.7 J**	**18 J**	9.3 J	10.4
Cobalt	--	0.822	0.17 U	0.15 U	0.13 U	0.16 U	0.22 J	0.17 U	**0.85 J**	0.63 J	0.68 J	0.054 J	0.1 J	0.52 J	0.61 J	0.56 J	0.27 J
Copper	704	2.56	2.1 J	0.72 J	0.57 J	0.8 J	2 J	0.83 J	**4.1 J**	1 J	1 J	0.51 J	0.37 J	2.1 J	2.2	0.93 J	1.2 J
Iron	151	5,439	4,120	1,080 J	**10,300 J**	**8,330 J**	**9,380**	4,020 J	**9,130 J**	**10,800 J**	**18,800 J**	494 J	697 J	**9,240 J**	5,120 J	3,820 J	5,010
Lead	270	8.49	**10**	4.8 J	6.2 J	**17.6 J**	**11.1**	5.8 J	**15 J**	7.1 J	7.9 J	2.8 J	3.9 J	**9.8 J**	**9.9 J**	**11.3 J**	6.5 J
Magnesium	--	363	948 U	837 U	741 U	888 U	845 U	919 U	**1,110**	**568**	**640**	74.3 J	136 J	**644**	**535**	**395 J**	247 J
Manganese	65.2	9.25	9	7	6.5	9.2	7.6	7.9	**13.7**	**10.3 J**	**9.9 J**	9.2 J	8.8 J	**12.1 J**	6.8 J	**10.1 J**	3.1 U
Mercury	0.015	0.071	0.057	0.015 U	0.017 J	0.029 J	0.014 U	0.028 J	0.033 J	0.1 U	0.11 U	0.095 U	0.11 U	0.11 U	0.11 U	0.1 U	0.068 U
Nickel	56.4	2.27	1.1 J	0.45 J	1 J	1.2 J	1.3 J	1.3 J	**3.2 J**	1.9 J	2.1 J	3.2 U	0.37 J	1.6 J	1.6 J	1.2 J	0.85 J
Potassium	--	361	948 U	118 J	249 J	229 J	845 U	188 J	**1,240 J**	**431 J**	**499**	102 J	154 J	**666**	**596**	328 J	295 J
Selenium	12.2	0.505	0.59 U	0.52 U	**0.7 J**	0.55 U	0.52 U	0.57 U	0.63 U	0.32 J	0.26 J	2.8 UJ	3.3 UJ	4 UJ	0.26 J	3.3 UJ	0.31 J
Sodium	--	68.3	**75.4 J**	837 U	31.8 U	888 U	**89.3 J**	919 U	1,020 U	41.2 J	47.1 J	406 U	470 U	42.7 J	57.6 J	54.3 J	51.9 J
Vanadium	--	17.2	9.1 J	5.2 J	**20.2 J**	17.1 J	**31.3**	10.5 J	**40.4 J**	**23.7**	**27.3**	3.3 J	4.3 J	**21.6**	**22.6**	10.6	11.6
Zinc	550	6.59	3.8 U	3.3 UJ	**12.1 J**	**17.7 J**	5.3	3.9 J	**11 J**	5 J	5.5 J	1 J	1.5 J	5.7 J	6.3	4.4 J	2.3 J
Wet Chemistry (MG_KG)																	
% Solids	--	--	80	91	85	86	79	86	76	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	--	--	NA	NA	NA	NA	NA	NA	NA	0.0024 U	0.0025 U	0.0022 U	0.0025 U	0.0031 U	0.0024 U	0.0025 U	0.0024 U
Total organic carbon (TOC)	--	--	43,000	2,000	5,600	6,500	1,800	4,800	2,100	NA	NA	NA	NA	NA	NA	NA	NA
pH	--	--	7.2	6	6.5	6.8	5.2	5.2	4.3	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (MG_KG)																	
TPH-diesel range	--	--	4.1	2.8 J	2 UJ	1.9 UJ	2.1 U	1.9 UJ	2.2 UJ	NA	NA	NA	NA	NA	NA	NA	NA
TPH-gas range	--	--	0.12 U	0.052 J	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Shading exceeds NC SSLs (Soil Screening Levels)
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quanitation limit is imprecise
"D" identifier in sample ID indicates duplicate sample
NA- Not analyzed
R- Unreliable result

TABLE 4-3
Subsurface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March 2006 and September 2007

Station ID	NCSSL (May 2005)	Camp Lejeune Background SB 2X Mean	MR04-IS17	MR04-IS18	MR04-IS19	MR04-IS20	MR04-IS21	MR04-IS22	MR04-IS23	MR04-IS24	MR04-IS25	MR04-IS26	MR04-IS27	MR04-IS28	MR04-IS29	MR04-IS30
Sample ID			MR04-IS17-9-11-07C	MR04-IS18-7-9-07C	MR04-IS19-7-9-07C	MR04-IS20-7-9-07C	MR04-IS21-8-10-07C	MR04-IS22-7-9-07C	MR04-IS23-7-10-07C	MR04-IS24-9-11-07C	MR04-IS25-9-11-07C	MR04-IS26-12-14-07C	MR04-IS27-9-11-07C	MR04-IS28-9-11-07C	MR04-IS29-10-12-07C	MR04-IS30-10-12-07C
Sample Date			09/12/07	09/11/07	09/12/07	09/12/07	09/12/07	09/12/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
Acetone	2,810	--	12 UJ	12 UJ	16 UJ	14 UJ	13 UJ	13 UJ	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U
Methyl acetate	--	--	12 U	12 U	16 U	14 U	13 U	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U
Semi-volatile Organic Compounds (UG_KG)																
Di-n-butylphthalate	24,800	--	430 U	430 U	530 U	500 U	450 U	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U
Fluoranthene	276,000	--	430 U	430 U	530 U	500 U	450 U	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U
Pyrene	286,000	--	430 U	430 U	530 U	500 U	450 U	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U
bis(2-Ethylhexyl)phthalate	6,670	--	430 U	430 U	530 U	500 U	450 U	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	129	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
4,4'-DDE	--	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
4,4'-DDT	1,360	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
Dieldrin	1.13	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	0.46 J	6.9 U	5.5 U
Endrin	440	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
Endrin aldehyde	--	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
Endrin ketone	--	--	4.3 U	4.3 U	5.3 U	5 U	4.5 U	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U
Heptachlor	2.3	--	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U
Explosives (UG_KG)																
Nitrobenzene	--	--	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ
Total Metals (MG_KG)																
Aluminum	--	10,369	3,260	8,900	**15,700**	**16,000**	2,770	**12,800**	9,990	**11,600**	**11,300**	**10,700**	5,250	**10,600**	**15,600**	6,370
Antimony	5.42	0.36	5.9 UJ	6.3 UJ	7.3 UJ	7 UJ	**0.55 J**	6.5 UJ	5.9 UJ	5.8 UJ	5.5 UJ	6.7 UJ	5.4 UJ	5.8 UJ	9.6 UJ	7.6 UJ
Arsenic	5.24	2.12	0.85 J	**2.6 J**	**3.4**	1.5	1.1	1.5 J	1.4 J	**3.2**	**3**	**4**	0.89 U	**4**	**8.7**	**3.2**
Barium	848	16.6	5.6 J	10.8 J	**25.5**	**18.4 J**	6.2 J	15.6 J	16.6 J	15 J	**17.3 J**	**25 J**	9.6 J	**21 J**	**19.9 J**	12.3 J
Beryllium	3.38	0.165	0.49 U	0.082 J	**0.3 J**	0.14 J	0.036 J	0.099 J	0.058 J	0.1 J	0.098 J	**0.32 J**	0.45 U	0.029 J	0.15 J	0.06 J
Cadmium	0.95	0.023	**0.035 J**	0.52 U	**0.062 J**	**0.079 J**	**0.039 J**	**0.04 J**	0.49 U	**0.052 J**	0.45 U	**0.064 J**	0.45 U	0.48 U	0.8 U	0.63 U
Calcium	--	441	**485 J**	225 J	155 J	128 J	497 U	541 U	161 J	56.5 J	181 J	139 J	446 U	**911 J**	796 U	278 J
Chromium	27.2	14.5	6.2 J	14	**23.6 J**	**18.8 J**	5.1 J	**15.4**	9.3	**17.4**	13.3	**18.9**	7.1	**14.6**	**30.4**	12.7
Cobalt	--	0.822	0.068 J	0.34 J	0.68 J	0.5 J	0.096 J	0.5 J	0.36 J	0.53 J	0.35 J	0.58 J	0.16 J	0.42 J	0.54 J	0.28 J
Copper	704	2.56	0.46 J	2 J	**3.5**	1.5 J	0.61 J	**2.8**	1.6 J	2.2 J	0.81 J	**3.2**	0.31 J	0.73 J	**4.2**	1.5 J
Iron	151	5,439	2,630	2,880	**6,320**	3,990	1,530	3,760	3,220	**13,500**	3,620	**19,900**	930	**9,750**	**16,600**	**6,360**
Lead	270	8.49	4.1	**9.6 J**	**11.8**	**11**	3.6	**12.8 J**	7.4 J	**10.7**	**11.4**	**9.2**	6.6	5.9	**13.9**	5.7
Magnesium	--	363	113 J	351 J	**797**	**565 J**	95.9 J	**514 J**	260 J	**544**	**403 J**	**599**	163 J	**369 J**	**758 J**	**371 J**
Manganese	65.2	9.25	5.6 J	2.6 U	7.4 J	6.2 J	2.7 U	3.7 U	3.4 U	7.7 J	5.7 J	7.6 J	7 J	7 J	9.2 J	7.9 J
Mercury	0.015	0.071	0.13 U	0.13 U	0.15 U	0.11 U	0.12 U	0.091 U	0.072 U	0.12 U	0.11 U	0.13 U	0.1 U	0.12 U	0.16 U	0.13 U
Nickel	56.4	2.27	0.45 J	0.73 J	2 J	1.4 J	4 U	1.1 J	1 J	1.5 J	0.9 J	1.7 J	0.44 J	1.5 J	1.9 J	0.95 J
Potassium	--	361	173 J	**484 J**	**1,130**	**729**	147 J	**480 J**	217 J	**618**	358 J	**672**	221 J	326 J	**932**	**423 J**
Selenium	12.2	0.505	3.4 U	0.27 J	4.3 U	4.1 U	3.5 U	3.8 UJ	3.4 UJ	3.4 U	3.2 U	3.9 U	3.1 U	3.4 U	5.6 U	4.4 U
Sodium	--	68.3	14.1 J	18.1 J	49.5 J	35.3 J	13.9 J	24.3 J	22.1 J	28.1 J	20.6 J	32.6 J	10.8 J	20 J	36.5 J	19.1 J
Vanadium	--	17.2	7.3	**17.8**	**33.3**	**23**	4.7 J	11.7	14.4	**24.4**	**18.3**	**27.7**	6.7	**18.1**	**31.7**	13.2
Zinc	550	6.59	1.2 J	3.7 J	**9**	5.6 J	0.99 J	3.7 J	2.2 J	4.6 J	3 J	6.5 J	1.5 J	4.3 J	**7 J**	4.1 J
Wet Chemistry (MG_KG)																
% Solids	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	--	--	0.0026 U	0.0026 U	0.0032 U	0.003 U	0.0027 U	0.0026 U	0.0024 U	0.0027 U	0.0024 U	0.003 U	0.0024 U	0.0026 U	0.0043 U	0.0034 U
Total organic carbon (TOC)	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (MG_KG)																
TPH-diesel range	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-gas range	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Shading exceeds NC SSLs (Soil Screening Levels)
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quanitation limit is imprecise
"D" identifier in sample ID indicates duplicate sample
NA- Not analyzed
R- Unreliable result

TABLE 4-3
Subsurface Soil Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
March 2006 and September 2007

Station ID	**NCSSL (May 2005)**	**Camp Lejeune Background SB 2X Mean**	MR04-IS31	MR04-IS32		MR04-IS33	MR04-IS34
Sample ID			MR04-IS31-2-4-07C	MR04-IS32-12-14-07C	MR04-IS32D-12-14-07C	MR04-IS33-12-14-07C	MR04-IS34-13-15-07C
Sample Date			09/12/07	09/12/07	09/12/07	09/12/07	09/12/07
Chemical Name							
Volatile Organic Compounds (UG_KG)							
Acetone	2,810	--	11 UJ	13 UJ	13 UJ	14 UJ	12 UJ
Methyl acetate	--	--	69	13 U	13 U	14 U	12 U
Semi-volatile Organic Compounds (UG_KG)							
Di-n-butylphthalate	24,800	--	390 U	460 U	440 U	460 U	420 U
Fluoranthene	276,000	--	390 U	460 U	440 U	460 U	420 U
Pyrene	286,000	--	390 U	460 U	440 U	460 U	420 U
bis(2-Ethylhexyl)phthalate	6,670	--	390 U	460 U	38 J	460 U	420 U
Pesticide/Polychlorinated Biphenyls (UG_KG)							
4,4'-DDD	129	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
4,4'-DDE	--	--	5.8	4.6 U	4.4 U	4.6 U	4.2 U
4,4'-DDT	1,360	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Dieldrin	1.13	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin	440	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin aldehyde	--	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin ketone	--	--	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Heptachlor	2.3	--	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Explosives (UG_KG)							
Nitrobenzene	--	--	120 U	120 U	120 U	120 UJ	120 U
Total Metals (MG_KG)							
Aluminum	--	10,369	4,740	**14,500**	**12,100**	**14,500**	10,200
Antimony	5.42	0.36	6 UJ	7 UJ	6.9 UJ	**0.64 J**	**0.48 J**
Arsenic	5.24	2.12	2 J	**4.6 J**	**3.7 J**	0.91 J	**3.5**
Barium	848	16.6	10.2 J	16.5 J	13.8 J	**18.3 J**	**19**
Beryllium	3.38	0.165	0.073 J	0.12 J	0.099 J	0.13 J	**0.23 J**
Cadmium	0.95	0.023	**0.077 J**	0.58 U	0.58 U	0.53 U	0.46 U
Calcium	--	441	**1,170**	**838**	**707**	527 U	66 J
Chromium	27.2	14.5	7.3	**20.8**	**15.9**	9.5 J	13.6 J
Cobalt	--	0.822	0.23 J	0.52 J	0.46 J	0.58 J	0.44 J
Copper	704	2.56	2 J	**3**	2.3 J	1.4 J	1.9 J
Iron	151	5,439	5,150	**9,250**	**7,490**	**24,000**	**15,400**
Lead	270	8.49	**20.1 J**	**14 J**	**11.8 J**	**15.2**	**12.2**
Magnesium	--	363	206 J	**473 J**	**386 J**	352 J	**476**
Manganese	65.2	9.25	7.8 J	4.2 U	4 U	6.1 J	5 U
Mercury	0.015	0.071	0.12 U	0.12 U	**0.073 J**	0.13 U	0.12 U
Nickel	56.4	2.27	0.89 J	1.4 J	1.2 J	2 J	1.2 J
Potassium	--	361	199 J	**595**	**565 J**	247 J	**485**
Selenium	12.2	0.505	0.34 J	0.34 J	0.32 J	3.7 U	3.2 U
Sodium	--	68.3	13.7 J	27.9 J	25.7 J	34.2 J	43.2 J
Vanadium	--	17.2	10.9	**34.6**	**21.4**	13.2	**18.9**
Zinc	550	6.59	**10.9**	4.9 J	5.2 J	4.3 J	4.1 J
Wet Chemistry (MG_KG)							
% Solids	--	--	NA	NA	NA	NA	NA
Perchlorate	--	--	0.0024 U	0.0028 U	0.0027 U	0.0028 U	9.50E-04 J
Total organic carbon (TOC)	--	--	NA	NA	NA	NA	NA
pH	--	--	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (MG_KG)							
TPH-diesel range	--	--	NA	NA	NA	NA	NA
TPH-gas range	--	--	NA	NA	NA	NA	NA

Notes:
Shading exceeds NC SSLs (Soil Screening Levels)
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quanitation limit is imprecise
"D" identifier in sample ID indicates duplicate sample
NA- Not analyzed
R- Unreliable result

TABLE 4-4
Groundwater Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejuene
North Carolina
March/April 2006 and September 2007

Station ID	NC2LGW (December 2005)	Camp Lejeune Background GW 2X Mean	MR04-MW01		MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05		MR04-MW06		MR04-MW07		MR04-MW08		MR04-MW09		MR04-MW10	
Sample ID			MR04-MW01-06A	MR04-GW01-07C*	MR04-MW02-06A	MR04-GW02-07C	MR04-MW03-06A	MR04-GW03-07C	MR04-MW04-06A	MR04-GW04-07C	MR04-MW05-06A	MR04-GW05-07C	MR04-MW06-06A	MR04-GW06-07C	MR04-MW07-06A	MR04-GW07-07C	MR04-MW08-06A*	MR04-GW08-07C	MR04-MW09-06A	MR04-GW09-07C	MR04-MW10-06A	MR04-GW10-07C
Sample Date			03/28/06	09/09/07	04/01/06	09/12/07	03/28/06	09/09/07	03/30/06	09/09/07	03/29/06	09/09/07	03/31/06	09/12/07	03/28/06	09/06/07	03/30/06	09/08/07	03/30/06	09/08/07	03/29/06	09/06/07
Chemical Name																						
Volatile Organic Compounds (UG_L)																						
Acetone	700	--	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5.8 J	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R
Chloroform	70	--	10 U	0.5 U	5.1 J	1.2	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloromethane	2.6	--	10 U	0.2 J	10 U	0.5 U	10 U	0.28 J	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Toluene	1,000	--	10 U	0.5 U	1.6 J	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	3.5 J	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Semi-volatile Organic Compounds (UG_L)																						
4-Methylphenol	3.5	--	12 U	5.4 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U	12 U	5.7 U	13 U	6.2 U	1.2 J	5.5 U
Acetophenone	--	--	12 U	5.4 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	1.1 J	5.4 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U
Di-n-butylphthalate	700	--	12 U	5.4 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U
Diethylphthalate	5,000	--	12 U	5.4 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U
Phenol	300	--	12 U	5.4 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	0.62 J	11 U	5.4 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U
bis(2-Ethylhexyl)phthalate	2.5	--	12 U	5.4 U	13 U	5 U	1.4 J	1.1 J	1.3 J	4.8 U	85 U	5.6 U	13 U	1.1 J	3.5 J	5.4 U	8.1 J	1 J	1.8 J	6.2 U	12 U	5.5 U
Pesticide/Polychlorinated Biphenyls (UG_L)																						
Heptachlor epoxide	0.0038	--	0.06 U	0.01 U	0.24 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.18	0.0094 U	0.06 U	0.011 U	0.13 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U
beta-BHC	0.019	--	0.06 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.13 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U
Explosives (UG_L)																						
2,4,6-Trinitrotoluene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.065 J	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,4-Dinitrotoluene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.2 J	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,6-Dinitrotoluene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
4-Nitrotoluene	--	--	0.52 U	0.25 U	0.2 J	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.14 J	0.25 U	1.6	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.47 J	0.25 U
Nitrobenzene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.077 J	0.25 U	0.26 U	0.25 U	0.1 J	0.25 U	0.26 U	0.25 U
Perchlorate	--	--	1 U	NA	1 U	NA	1 U	NA	1 U	NA	1 U	NA	2 U	NA	1 U	NA	1 U	NA	1 U	NA	1 U	NA
Total Metals (UG_L)																						
Aluminum	--	1,886	1,090	**2,400**	665 J	221	1,140	496	232	150 J	1,080	1,340	723	**2,730**	237	299	200 U	200 U	200 U	200 U	523	700
Arsenic	10	5.77	2.9 U	1 U	2.9 U	0.79 J	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	0.58 J	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U
Barium	2,000	86.2	200 U	**113**	33.3 J	76.3	**229**	**120**	200 U	20.2	200 U	**132**	200 U	**269**	200 U	**123 J**	200 U	42.9	200 U	10 U	200 U	**94.1 J**
Beryllium	--	0.308	5 U	0.28 J	0.2 U	5 U	5 U	0.2 J	0.2 U	5 U	**0.65 J**	**0.56 J**	5 U	5 U	5 U	**0.47 J**	0.22 J	5 U	0.2 U	5 U	0.2 U	0.16 J
Cadmium	1.75	0.358	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	5 U	0.25 J	0.4 U	0.21 J	0.4 U	1 U	0.4 U	1 U	0.4 U	**0.36 J**	5 U	1 U
Calcium	--	69,078	9,500	11,200	32,800 J	19,200	5,000 U	671 J	52,000 U	5,000 U	16,000	15,800	19,200	33,000	5,000 U	1,050 J	5,000 U	5,000 U	24,600	4,550 J	5,000 U	4,020 J
Chromium	50	3.13	**33.4**	2 U	**5.5 J**	**20.6**	1 U	2 U	1 U	2 U	1 U	2 U	3 J	**9.6**	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	--	3.4	50 U	1.4 J	0.9 U	1 U	50 U	2.3 J	0.9 U	0.29 J	2.9 J	**3.6 J**	1.3 J	1.9	50 U	1.9	0.9 U	1 U	**3.5 J**	2.4 J	2.3 J	1.5
Copper	1,000	2.76	0.7 U	5 U	25 U	5 U	25 U	5 U	0.7 U	5 U	0.7 U	5 U	25 U	1.2 J	25 U	5 U	0.7 U	5 U	0.7 U	1.7 J	0.7 U	5 U
Iron	300	5,999	100 U	100 U	21.5 J	210	292	100 U	100 U	19.8 J	809	124	842	3,360	215	100 U	100 U	17.3 J	106	442	228	516
Lead	15	2.8	2 U	0.47 J	2 U	1 U	2.2 J	1 U	2 U	1 U	2 U	1 U	2 U	1.2	2 U	0.85 J	2 U	1 U	2 U	1 U	2 U	1.5
Magnesium	--	6,363	**7,170**	**13,400**	2,040 J	1,550 J	**7,050**	4,650 J	5,000 U	1,460 J	**7,460**	**7,070**	5,000 U	764 J	5,000 U	2,440 J	5,000 U	1,080 J	5,000 U	516 J	**8,100**	**9,250**
Manganese	50	214	15 U	14.1	50.6 J	45.8	22.1	3.1	8.4 J	1.7	17.6	14.1	160	101	85.2	5.3	1.9 J	2.3	105	67.6	22.6	7.2
Mercury	1.05	0.1	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.054 J	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	100	7.97	1.4 U	1.7	1.4 U	**12.8**	7 J	2.9	2 J	1 U	4.3 J	4.4	3.6 J	6	**12.5 J**	2.3	1.4 U	1 U	**10.6 J**	7.8	4.1 J	0.58 J
Potassium	--	3,277	**7,900**	**3,960 J**	**32,000 J**	**21,400**	5,000 U	2,260 J	5,000 U	1,060 J	1,550 J	1,880 J	**75,200**	**45,200**	5,000 U	5,000 U	5,000 U	1,190 J	5,000 U	1,150 J	1,700 J	5,000 U
Selenium	50	3.14	**5.8**	**6.9 J**	3.1 U	0.54 J	**5.7**	2.1 J	3.1 U	0.31 J	3.1 U	2 J	3.1 U	5 U	**4.1 J**	1.6 J	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	1.8 J
Silver	17.5	0.77	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	**4.7 J**	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	--	22,508	4,830 J	4,050 J	**32,100 J**	17,700	21,200	**24,100**	14,100	13,600	6,230	6,420	**69,300**	**29,200**	8,870	6,910 U	5,420	9,790	20,300	**39,500**	7,580	10,500 U
Thallium	--	3.78	2.2 U	1 U	**5.2 J**	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	--	4.72	0.9 U	5 U	**5.5 J**	5 U	0.9 U	5 U	0.9 U	5 U	0.9 U	5 U	3.2 J	3.6 J	0.9 U	5 U	0.9 U	0.89 J	2.3 J	1 J	0.9 U	5 U
Zinc	1,050	42.1	20 U	10 R	20 U	10 U	41.8	10.5 J	20 U	10 R	29	34.2 J	20 U	12.4	**57.3 J**	10 U	20 U	10 R	20 U	23.8 J	23	10 U
Dissolved Metals (UG_L)																						
Aluminum	--	1,886	1,110	**2,360**	128 J	200 U	891	475	214	130 J	1,000	1,290	200 U	200 U	197 J	247	200 U	200 U	200 U	200 U	491	582
Arsenic	10	5.77	2.9 U	1 U	2.9 U	0.58 J	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U
Barium	2,000	86.2	200 U	**114**	30.7 J	59.1	**224**	**119**	200 U	20.7	200 U	**133**	200 U	**106**	200 U	**118 J**	200 U	42.1	200 U	10 U	200 U	**95 J**
Beryllium	--	0.308	5 U	**0.32 J**	0.2 U	5 U	5 U	0.22 J	0.2 U	5 U	**0.73 J**	**0.63 J**	0.2 U	5 U	5 U	**0.46 J**	0.2 U	5 U	0.2 U	5 U	0.21 J	0.18 J
Cadmium	1.75	0.358	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	5 U	0.26 J	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	**0.37 J**	0.4 U	1 U
Calcium	--	69,078	9,690	11,100	31,400 J	17,200	5,000 U	666 J	5,000 U	5,000 U	15,700	15,500	18,200	21,300	5,000 U	1,030 J	5,000 U	5,000 U	23,600	4,440 J	5,000 U	4,270 J
Chromium	50	3.13	**30.1**	2 U	**4.9 J**	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	--	3.4	0.9 U	1.4 J	0.9 U	0.41 J	50 U	2.2 J	0.9 U	0.29 J	2.9 J	**3.6 J**	0.9 U	0.76 J	50 U	1.9	0.9 U	1 U	3.3 J	2.3 J	2 J	1.5
Copper	1,000	2.76	0.7 U	5 U	25 U	5 U	25 U	5 U	0.7 U	5 U	0.7 U	5 U	25 U	5 U	25 U	5 U	0.7 U	5 U	0.7 U	1.3 J	0.7 U	5 U
Iron	300	5,999	17.9 U	100 U	17.9 U	46 J	301	15.4 J	100 U	16.7 J	867	306	100 U	749	221	100 U	17.9 U	100 U	100 U	402	116	95.5 J
Lead	15	2.8	2 U	0.56 J	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	0.97 J	2 U	1 U	2 U	1 U	2 U	1.4
Magnesium	--	6,363	**7,470**	**13,200**	1,880 J	1,440 J	**6,970**	4,670 J	5,000 U	1,510 J	**7,460**	**7,090**	5,000 U	437 J	5,000 U	2,450 J	5,000 U	1,050 J	5,000 U	508 J	**8,100**	**9,690**
Manganese	50	214	15 U	13.6	46.4 J	38.3	22.3	3.1	8.3 J	1.8	18.5	15.7	140	56	91.5	5.5	1.7 J	2.1	104	63.2	22.3	7.3
Nickel	100	7.97	1.4 U	1.7 U	1.7 J	3.3	6.3 J	2.6 U	1.6 J	1 U	4.9 J	4.4	1.9 J	2.1	**13.6 J**	2.3	1.6 J	1 U	**10.8 J**	7.1	5.1 J	0.78 J
Potassium	--	3,277	**7,400**	**3,890 J**	**30,800 J**	**20,000**	5,000 U	2,250 J	5,000 U	1,160 J	1,570 J	1,950 J	**67,700**	**47,000**	5,000 U	5,000 U	5,000 U	1,150 J	5,000 U	1,220 J	1,700 J	5,000 U
Selenium	50	3.14	**6.1**	**6.9 J**	3.1 U	0.35 J	**5.2**	2.1 J	3.1 U	0.33 J	3.1 J	2 J	3.1 U	5 U	**3.4 J**	1.2 J	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	1.6 J
Silver	17.5	0.77	0.7 U	1 U	0.7 U	1 U	10 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	**1.1 J**	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	--	22,508	4,590 J	4,020 J	**31,300 J**	17,000	21,000	**24,600**	14,200	14,000	6,060	6,480	**66,100**	**30,500**	8,650	6,860 U	5,330	9,630	19,900	**37,000**	7,450	11,000 U
Thallium	--	3.78	10 U	1 U	2.2 U	0.051 J	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	--	4.72	0.9 U	5 U	**5.5 J**	5 U	0.9 U	5 U	0.9 U	5 U	0.9 U	2.1 J	2.3 J	5 U	0.9 U	5 U	0.9 U	5 U	2.1 J	1.7 J	0.9 U	5 U
Zinc	1,050	42.1	20 U	10 R	20 U	10 U	39.6	7.3 J	20 U	12.7 J	28.9	36.1 J	20 U	10 U	**67 J**	10 U	20 U	10 R	20 U	18.3 J	20.5	10 U
Wet Chemistry (MG_L)																						
Perchlorate	--	--	NA	1.70E-04 J	NA	6.80E-05 J	NA	2.60E-04	NA	2.00E-04 U	NA	2.00E-04 U	NA	2.00E-04 U	NA	2.50E-04	NA	1.60E-04 J	NA	2.00E-04 U	NA	9.70E-05 J
Total organic carbon (TOC)	--	--	6.4	NA	2.4 J	NA	2	NA	6.4 J	NA	6.6	NA	8.5 J	NA	2.3	NA	1 UJ	NA	1.6 J	NA	1.8	NA
Total organic halogens (TOX)	--	--	0.01 U	NA	0.016 J	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.02 U	NA	0.01 U	NA	0.01 U	NA
Total Petroleum Hydrocarbons (UG_L)																						
Oil and Grease	--	--	5,300 UJ	NA	5,800 U	NA	5,600 UJ	NA	1,200 U	NA	5,500 UJ	NA	1,200 U	NA	5,900 UJ	NA	1,200 U	NA	1,100 U	NA	5,400 UJ	NA
TPH-gas range	--	--	100 UJ	NA	47 J	NA	100 UJ	NA	100 U	NA	100 U	NA	26 J	NA	100 UJ	NA	100 U	NA	100 U	NA	100 U	NA

Notes:
Shading Exceeds NC2L GW Screening Criteria
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
R- Unreliable result
NA- Not analyzed
*A duplicate sample was collected. The most conservative results shown.

TABLE 4-4
Groundwater Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejuene
North Carolina
March/April 2006 and September 2007

Station ID	NC2LGW (December 2005)	Camp Lejeune Background GW 2X Mean	MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample ID			MR04-MW11-06A	MR04-GW11-07C	MR04-MW12-06A	MR04-GW12-07C	MR04-MW13-06A	MR04-GW13-07C	MR04-MW14-06A	MR04-GW14-07C	MR04-MW15-06A	MR04-GW15-07C
Sample Date			03/29/06	09/09/07	03/31/06	09/12/07	03/31/06	09/08/07	03/29/06	09/08/07	03/31/06	09/08/07
Chemical Name												
Volatile Organic Compounds (UG_L)												
Acetone	700	--	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R
Chloroform	70	--	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloromethane	2.6	--	10 U	0.22 J	10 U	0.5 U	10 U	0.24 J	10 U	0.5 U	10 U	0.5 U
Toluene	1,000	--	10 U	0.5 U	5 J	0.5 U	10 U	0.5 U	10 U	0.5 U	1.2 J	0.5 U
Semi-volatile Organic Compounds (UG_L)												
4-Methylphenol	3.5	--	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Acetophenone	--	--	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Di-n-butylphthalate	700	--	13 U	1.1 J	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	0.67 J
Diethylphthalate	5,000	--	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	2.1 J
Phenol	300	--	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
bis(2-Ethylhexyl)phthalate	2.5	--	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Pesticide/Polychlorinated Biphenyls (UG_L)												
Heptachlor epoxide	0.0038	--	0.06 U	0.0094 U	0.12	0.01 U	0.21	0.0094 U	0.06 U	0.011 U	0.19 U	0.0094 U
beta-BHC	0.019	--	0.06 U	0.0048 J	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
Explosives (UG_L)												
2,4,6-Trinitrotoluene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,4-Dinitrotoluene	--	--	0.26 U	0.25 U	0.096 J	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,6-Dinitrotoluene	--	--	0.26 U	0.25 U	0.32	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
4-Nitrotoluene	--	--	0.5 J	0.25 U	0.2 J	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.13 J	0.25 U
Nitrobenzene	--	--	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
Perchlorate	--	--	1 U	NA	2 U	NA	1 U	NA	1 U	NA	1.3	NA
Total Metals (UG_L)												
Aluminum	--	1,886	211	156 J	303	216	200 U	200 U	200 U	200 U	1,300	200 U
Arsenic	10	5.77	2.9 U	1 U	2.9 U	0.69 J	2.9 U	1 U	2.9 U	1 U	2.9 U	0.71 J
Barium	2,000	86.2	200 U	30.9	200 U	17.7	200 U	25.7	200 U	30.8	200 U	10 U
Beryllium	--	0.308	0.2 U	5 U	0.2 U	5 U	0.2 U	5 U	5 U	5 U	0.2 U	5 U
Cadmium	1.75	0.358	5 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U
Calcium	--	69,078	5,000 U	5,000 U	21,900	40,100	5,000 U	5,000 U	5,000 U	5,000 U	44,400	36,100
Chromium	50	3.13	1 U	2 U	**446**	1.7 J	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	--	3.4	2.1 J	1 U	0.9 U	1 U	0.9 U	1 U	50 U	0.32 J	0.9 U	1 U
Copper	1,000	2.76	0.7 U	5 U	25 U	5 U	25 U	5 U	25 U	5 U	25 U	5 U
Iron	300	5,999	103	100 U	170	225	25 U	125	100 U	69.4 J	100 U	47.2 J
Lead	15	2.8	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U
Magnesium	--	6,363	5,000 U	1,080 J	5,000 U	830 J	5,000 U	919 J	5,000 U	702 J	5,000 U	605 J
Manganese	50	214	20.1	2.5	2.4 J	7	13.5 J	1.6	15 U	2.3	0.68 J	7.1
Mercury	1.05	0.1	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	100	7.97	5.1 J	0.76 J	2.9 J	1	1.7 J	1 U	1.7 J	1 U	1.6 J	1 U
Potassium	--	3,277	1,210 J	1,800 J	**121,000**	**9,680**	941 U	1,130 J	524 J	578 J	5,000 U	3,030 J
Selenium	50	3.14	3.1 U	0.34 J	3.1 U	5 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	5 UJ
Silver	17.5	0.77	0.74 J	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	--	22,508	7,080	9,660	**59,500**	11,500	8,190	10,600	6,160	5,800	12,700	7,530
Thallium	--	3.78	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	--	4.72	0.9 U	5 U	**11.2 J**	1.8 J	0.9 U	5 U	0.9 U	5 U	**15.1 J**	5 U
Zinc	1,050	42.1	30	6.6 J	20 U	10 U	20 U	10 R	20 U	10 R	20 U	10 R
Dissolved Metals (UG_L)												
Aluminum	--	1,886	214	150 J	207	200 U	200 U	200 U	200 U	200 U	1,240	200 U
Arsenic	10	5.77	2.9 U	1 U	2.9 U	0.89 J	2.9 U	1 U	2.9 U	1 U	2.9 U	0.73 J
Barium	2,000	86.2	200 U	34.3	200 U	11.6 U	200 U	25.4	200 U	29.6	200 U	10 U
Beryllium	--	0.308	0.2 U	5 U	0.2 U	5 U	0.2 U	5 U	0.25 J	5 U	0.2 U	5 U
Cadmium	1.75	0.358	5 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U
Calcium	--	69,078	5,000 U	5,000 U	19,800	37,000	5,000 U	5,000 U	5,000 U	5,000 U	44,600	36,300
Chromium	50	3.13	1 U	2 U	**393**	2 U	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	--	3.4	2.2 J	0.83 J	0.9 U	1 U	0.9 U	1 U	0.98 J	0.33 J	0.9 U	1 U
Copper	1,000	2.76	25 U	5 U	25 U	0.85 J	25 U	5 U	0.7 U	5 U	25 U	5 U
Iron	300	5,999	100 U	100 U	17.9 U	100 U	100 U	120	100 U	21.2 J	100 U	25.9 J
Lead	15	2.8	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U
Magnesium	--	6,363	5,000 U	1,200 J	5,000 U	864 J	5,000 U	864 J	5,000 U	676 J	5,000 U	607 J
Manganese	50	214	20	3	0.2 U	2.8	13.4 J	1.7	15 U	2.1	0.2	6.5
Nickel	100	7.97	4.2 J	0.87 J	2.2 J	**8.6**	1.7 J	1 U	2 J	1 U	1.5 J	1 U
Potassium	--	3,277	1,260 J	1,540 J	**111,000**	**9,210**	5,000 U	978 J	497 J	555 J	5,000 U	3,150 J
Selenium	50	3.14	3.1 U	0.48 J	**4.1 J**	5 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	5 UJ
Silver	17.5	0.77	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	--	22,508	6,930	8,920	**56,800**	11,100	8,200	9,450	5,930	5,900	12,900	7,720
Thallium	--	3.78	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	10 U	1 U
Vanadium	--	4.72	0.9 U	5 U	**10.8 J**	2.3 J	0.9 U	1.3 J	0.9 U	5 U	**14.6 J**	5 U
Zinc	1,050	42.1	24.7	10 R	20 U	10 U	20 U	10 R	20 U	10 R	20 U	10 R
Wet Chemistry (MG_L)												
Perchlorate	--	--	NA	2.50E-04	NA	2.00E-04 U	NA	2.00E-04 U	NA	3.00E-04	NA	2.00E-04 U
Total organic carbon (TOC)	--	--	6.6	NA	7.3 J	NA	6 J	NA	1 U	NA	8.1 J	NA
Total organic halogens (TOX)	--	--	0.01 U	NA	0.013 J	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA
Total Petroleum Hydrocarbons (UG_L)												
Oil and Grease	--	--	5,400 UJ	NA	1,200 U	NA	1,200 U	NA	7,200 J	NA	1,100 U	NA
TPH-gas range	--	--	100 U	NA	35 J	NA	100 U	NA	100 U	NA	100 U	NA

Notes:
Shading Exceeds NC2L GW Screening Criteria
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
R- Unreliable result
NA- Not analyzed
*A duplicate sample was collected. The most conservative results shown.

TABLE 4-5
Surface Water Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
April 2006 and September 2007

Station ID	NC2B-SW-Water Supply (August 07)	MR04-SD01/SW01		MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04		MR04-SD05/SW05		MR04-SD06/SW06		MR04-SD07/SW07 [1]	MR04-SD08/SW08		MR04-SD09/SW09 [2]	MR04-SD10/SW10 [3]
Sample ID		MR04-SW01-06A	MR04-SW01-07C	MR04-SW02-06A	MR04-SW02-07C	MR04-SW03-06A	MR04-SW03-07C	MR04-SW04-06A	MR04-SD04-07C*	MR04-SW05-06A	MR04-SW05-07C	MR04-SW06-06A	MR04-SW06-07C	MR04-SW07-06A	MR04-SW08-06A	MR04-SW08-07C	MR04-SW09-06A	MR04-SW10-06A
Sample Date		04/01/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	09/07/07	04/02/06	09/07/07	04/02/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/02/06
Chemical Name																		
Volatile Organic Compounds (UG_L)																		
Carbon disulfide	--	10 U	0.32 J	10 U	0.22 J	10 U	0.5 U	10 U	0.5 U	10 U	0.27 J	10 U	0.5 U	10 U	10 U	1.4	10 U	10 U
Toluene	--	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	3 J	0.5 U	10 U	10 U
Semi-volatile Organic Compounds (UG_L)																		
Butylbenzylphthalate	--	11 U	1.3 J	13 U	0.63 J	12 U	0.64 J	13 U	1.1 J	13 U	5.4 U	12 U	5.2 U	14 U	11 U	0.78 J	13 U	12 U
bis(2-Ethylhexyl)phthalate	1.2	2.3 J	5.2 U	2.1 J	5.1 U	12 U	5.1 U	2.1 J	13	1.4 J	5.4 U	2 J	5.2 U	16	3.3 J	5.2 U	3.8 J	12 U
Pesticide/Polychlorinated Biphenyls (UG_L)																		
4,4'-DDD	3.10E-04	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.11 U	0.02 U	0.11 U	0.022 U	0.01 J	0.12 U	0.022 U	0.13 U	0.12 U
Dieldrin	5.00E-05	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.11 U	0.02 U	0.02 J	0.022 U	0.04 J	0.12 U	0.013 J	0.13 U	0.12 U
Endrin aldehyde	0.29	0.04 J	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Heptachlor	8.00E-05	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.0059 J	0.06 U	0.06 U	0.014 J	0.06 U	0.06 U
alpha-BHC	0.0026	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.0064 J	0.06 U	0.06 U
beta-BHC	0.0091	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.0063 J	0.06 U	0.06 U	0.011 J	0.06 U	0.06 U
delta-BHC	--	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.018 J	0.06 U	0.06 U
Explosives (UG_L)																		
No Detections																		
Total Metals (UG_L)																		
Aluminum	6500	3,210 J	502	323 J	1,640	2,810 J	254	7,150 J	227	2,070 J	1,720	345 J	893	200 U	480 J	320	1,680 J	200 U
Antimony	5.6	3.2 U	20 U	3.2 U	2.6 J	3.2 U	20 U	3.2 U	20 U	3.2 U	10 U	3.2 U	10 U	3.2 U	3.2 U	20 U	3.2 U	3.2 U
Arsenic	10	2.9 U	14.1	2.9 U	11.3	2.9 U	15.4	3.1 J	12.8	3.3 J	16.8 J	2.9 U	17.6 J	2.9 U	2.9 U	10.6	2.9 U	2.9 U
Barium	1,000	200 U	20 J	200 U	76.6 J	200 U	10.9 J	200 U	15.4 J	200 U	50 U	200 U	13.2 J	200 U	200 U	26.8 J	200 U	200 U
Beryllium		0.22 J	5 U	0.2 U	5 U	0.2 U	5 U	0.37 J	5 U	0.21 J	5 U	0.2 U	5 U	0.2 U	0.2 U	5 U	0.23 J	0.2 U
Calcium	--	151,000 J	280,000	50,100 J	284,000	152,000 J	276,000	154,000	271,000	161,000	288,000	101,000	274,000	58,100	5,360	228,000	23,400	23,000
Chromium	--	4 J+	3.4 J	1.2 J	3.4 J	2.2 J+	2 J	8.2 J+	5.1 J	2.5 J+	3.4 J	1 U	3.5 J	1 U	1 U	20 U	2.7 J	1 U
Cobalt	190	0.9 U	0.95 J	0.9 U	10 U	0.9 U	10 U	0.9 U	10 U	0.9 U	4.2 J	0.9 U	4.4 J	0.9 U	0.9 U	10 U	0.9 U	0.9 U
Iron	--	2,470 J	420	3,020 J	724	2,580 J	161	4,970	136	1,810	885	477	415	576	1,370	303	1,210	257
Lead	--	2 U	1.4 J	2 U	10 U	4.6 J+	10 U	8.4 J+	0.89 J	2 U	5 U	2 J	2.8 J	2 U	2 U	1.3 J	12.6	2 U
Magnesium	--	430,000 J	876,000	45,500 J	869,000	438,000 J	852,000	445,000	839,000	469,000	920,000	270,000	889,000	104,000	5,000 U	661,000	7,660	5,000 U
Manganese	200	32.5 J+	39.6	69.1 J	30.7	36.9 J+	37.5	40.7 J+	30.6	112 J+	27.2	53.6	30.6	31.6	20.2	32.5	15 U	15 U
Nickel	25	1.4 U	10 U	1.4 U	10 U	1.4 U	10 U	2.7 J+	10 U	1.4 U	25 U	1.4 U	25 U	1.4 U	1.4 U	10 U	1.7 J	1.4 U
Potassium	--	147,000 J	267,000	17,300 J	269,000	148,000 J	272,000	154,000	270,000	158,000	289,000	92,200	271,000	35,400	5,000 U	220,000	5,000 U	5,000 U
Selenium	--	3.1 U	29.1 J	3.1 U	50.5	3.1 U	30.5 J	3.1 U	29.5 J	3.1 U	44.3 J	3.1 U	54 J	3.1 U	3.1 U	16.8 J	3.1 U	3.1 U
Silver	--	0.7 U	10 U	0.7 U	10 U	0.7 U	10 U	0.7 U	10 U	0.7 U	0.21 J	0.7 U	0.25 J	0.7 U	0.7 U	10 U	0.7 U	0.7 U
Sodium	--	3,650,000 J	7,150,000	418,000 J	7,150,000	3,670,000 J	7,160,000	3,770,000	7,140,000	3,880,000	7,120,000	2,190,000	6,770,000	834,000	8,490	5,780,000	42,700	15,400
Thallium	0.24	2.2 U	1 J	2.2 U	10 U	2.2 U	1 J	2.2 U	1.1 J	3.8 J-	5 U	2.2 U	0.65 J	2.2 U	2.2 U	1.2 J	2.2 U	2.2 U
Vanadium	--	6.6 J	50 U	1.6 J	50 U	5.8 J	25.6 J	12.1 J	50 U	3.5 J	6.4 J	1.1 J	4.6 J	0.9 U	0.9 U	50 U	2.7 J	0.9 U
Zinc	--	20 U	100 U	20 U	100 U	23.8 J+	100 U	20.4 J+	100 U	20 U	50 R	20 U	50 R	20 U	20 U	100 U	31.9 J	20 U
Dissolved Metals (UG_L)																		
Aluminum	--	NA	438	NA	1,440	NA	219	NA	218	NA	1,180	NA	1,500	NA	NA	334	NA	NA
Arsenic	10	NA	9 J	NA	16.3	NA	8.9 J	NA	6.6 J	NA	18.2 J	NA	14.2 J	NA	NA	7.1 J	NA	NA
Barium	1,000	NA	17.2 J	NA	51.4 J	NA	11.9 J	NA	14 J	NA	50 U	NA	50 U	NA	NA	26.2 J	NA	NA
Calcium	--	NA	280,000	NA	281,000	NA	271,000	NA	274,000	NA	279,000	NA	276,000	NA	NA	228,000	NA	NA
Chromium	--	NA	20 U	NA	20 U	NA	3.2 J	NA	4.3 J	NA	3.8 J	NA	2.7 J	NA	NA	20 U	NA	NA
Cobalt	--	NA	1 J	NA	10 U	NA	10 U	NA	10 U	NA	4.1 J	NA	4.2 J	NA	NA	1.7 J	NA	NA
Iron	--	NA	342	NA	718	NA	152	NA	119	NA	614	NA	669	NA	NA	312	NA	NA
Lead	--	NA	1.1 J	NA	2.1 J	NA	10 U	NA	10 U	NA	5 U	NA	5 U	NA	NA	1.6 J	NA	NA
Magnesium	--	NA	876,000	NA	845,000	NA	849,000	NA	837,000	NA	862,000	NA	871,000	NA	NA	670,000	NA	NA
Manganese	200	NA	37.7	NA	31.2	NA	35	NA	29.4	NA	27.6	NA	29.6	NA	NA	34.4	NA	NA
Potassium	--	NA	270,000	NA	265,000	NA	272,000	NA	276,000	NA	280,000	NA	272,000	NA	NA	222,000	NA	NA
Selenium	--	NA	29 J	NA	29.6 J	NA	20.3 J	NA	24.4 J	NA	41.2 J	NA	42.3 J	NA	NA	17.5 J	NA	NA
Silver	--	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	0.18 J	NA	0.2 J	NA	NA	10 U	NA	NA
Sodium	--	NA	7,330,000	NA	6,960,000	NA	7,020,000	NA	7,190,000	NA	6,960,000	NA	6,760,000	NA	NA	5,780,000	NA	NA
Thallium	--	NA	1.1 J	NA	1.1 J	NA	1 J	NA	1 J	NA	5 U	NA	5 U	NA	NA	1.2 J	NA	NA
Vanadium	--	NA	50 U	NA	50 U	NA	50 U	NA	50 U	NA	4.7 J	NA	25 U	NA	NA	50 U	NA	NA
Zinc	--	NA	100 U	NA	100 U	NA	100 U	NA	100 U	NA	50 R	NA	50 R	NA	NA	61.8 J	NA	NA
Wet Chemistry (MG_L)																		
Total organic carbon (TOC)	--	8.8 J	NA	33 J	NA	11 J	NA	10 UJ	NA	10 UJ	NA	10 UJ	NA	10 UJ	9 J	NA	6.6 J	5 UJ
Total organic halogens (TOX)	--	0.5 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.1 UJ	NA	0.5 UJ	NA	0.2 UJ	0.02 UJ	NA	0.014 J	0.01 UJ
Total Petroleum Hydrocarbons (UG_L)																		
Oil and Grease	--	5,800 U	NA	11,000	NA	5,900 U	NA	5,700 U	NA	5,400 U	NA	5,600 U	NA	5,600 U	5,700 U	NA	5,800 U	5,800 U
TPH-gas range	--	100 U	NA	100 U	NA	34 U	NA	25 J	NA	100 U	NA	100 U	NA	100 U	29 J	NA	100 U	100 U

Notes:
Shading Exceeds N2B-SW-Water
Bold Text Exceeds Background
U- Analyte not detected
J- Reported value is estimated
J- - Reported value is estimated, biased low.
UJ- Analyte not detected. Quantitation limit is imprecise
R- Unreliable result
N2B-SW-Water-North Carolina Admistrative Code 2B Surface Water Water Supply Protection Standards
NA- Not analyzed
[1] SW07 not required to be sampled in 2007
[2] SW09 not required to be sampled in 2007
[3] SW10 could not reach sampling location in 2007
* A duplicate sample was collected. Most conservative results shown

TABLE 4-6
Sediment Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
April 2006 and September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	MR04-SD01/SW01			MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04				MR04-SD05/SW05			MR04-SD06/SW06			MR04-SD07/SW07[1]
Sample ID		MR04-SD01-06A	MR04-SD01-06B	MR04-SD01-07C	MR04-SD02-06A	MR04-SD02-07C	MR04-SD03-06A	MR04-SD03-07C	MR04-SD04-06A	MR04-SD04-06B	MR04-SD04-07C*	MR04-SD04D-07C	MR04-SD05-06A	MR04-SD05-06B	MR04-SD05-07C	MR04-SD06-06A	MR04-SD06-06B	MR04-SD06-07C	MR04-SD07-06A
Sample Date		04/01/06	04/17/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	04/17/06	09/07/07	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06
Chemical Name																			
Volatile Organic Compounds (UG_KG)																			
2-Butanone	2,200,000	13 UJ	NA	12 U	18 UJ	14 J	18 UJ	12 U	12 UJ	NA	14 J	24 J	13 UJ	NA	18 U	62 UJ	NA	35 U	76 UJ
Acetone	1,400,000	13 UJ	NA	12 U	18 UJ	36 J	18 UJ	12 U	7.4 J	NA	63	110 J	13 UJ	NA	8.7 J	62 UJ	NA	23 J	76 UJ
Carbon disulfide	36,000	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	1.5 J	62 U	NA	3.7 J	76 U
Methyl acetate	2,200,000	13 UJ	NA	12 U	18 UJ	25 U	18 UJ	12 U	12 UJ	NA	19 U	22 J	13 UJ	NA	18 U	62 UJ	NA	35 U	76 UJ
Semi-volatile Organic Compounds (UG_KG)																			
4-Methylphenol	31,000	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Acetophenone	--	48 J	NA	440 U	74 J	100 J	62 J	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Benzaldehyde	610,000	430 UJ	NA	440 U	610 UJ	98 J	580 UJ	400 U	410 UJ	NA	140 J	870 U	450 UJ	NA	590 U	2,100 UJ	NA	1,200 U	2,500 UJ
Benzo(a)anthracene	620	430 U	NA	440 U	610 U	940 U	580 U	25 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Benzo(a)pyrene	62	430 U	NA	440 U	610 U	940 U	580 U	23 J	410 U	NA	610 U	870 U	450 U	NA	590 U	220 J	NA	1,200 U	2,500 U
Benzo(b)fluoranthene	620	430 U	NA	440 U	610 U	940 U	580 U	26 J	410 U	NA	610 U	870 U	450 U	NA	590 U	440 J	NA	1,200 U	2,500 U
Benzo(g,h,i)perylene	230,000	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Benzo(k)fluoranthene	6,200	430 U	NA	440 U	610 U	940 U	580 U	25 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Butylbenzylphthalate	1,200,000	430 UJ	NA	440 U	610 U	940 U	580 UJ	26 J	410 UJ	NA	610 U	870 U	450 U	NA	590 U	2,100 UJ	NA	140 J	2,500 UJ
Chrysene	62,000	430 U	NA	440 U	610 U	940 U	580 U	28 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Fluoranthene	230,000	430 U	NA	440 U	610 U	940 U	580 U	61 J	47 J	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Indeno(1,2,3-cd)pyrene	620	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Phenanthrene	230,000	430 U	NA	440 U	610 U	940 U	580 U	37 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
Pyrene	230,000	430 U	NA	440 U	610 U	940 U	580 U	83 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U
bis(2-Ethylhexyl)phthalate	35,000	430 U	NA	440 U	190 J	940 U	110 J	37 J	410 U	NA	610 U	870 U	52 J	NA	63 J	250 J	NA	1,200 U	260 J
Pesticide/Polychlorinated Biphenyls (UG_KG)																			
4,4'-DDD	2,400	1.8 J	NA	4.4 U	1,100	31	660	3.6 J	1.5 J	NA	4.3 J	5.6 J	11	NA	5.8 U	6.6 J	NA	2.5 J	25 U
4,4'-DDE	1,700	1.1 J	NA	4.4 U	5.5 J	6.3 J	520	4.3	2.5 J	NA	7	7.1 J	5.2	NA	5.8 U	10 J	NA	2.1 J	12 J
4,4'-DDT	1,700	4.3 U	NA	4.4 U	0.86 J	9.4 U	190	4 U	2 J	NA	6.1 U	8.7 U	4.8	NA	5.8 U	4.5 J	NA	2.1 J	25 U
Aldrin	29	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U
Dieldrin	30	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	3.2 J	NA	12 U	25 U
Endosulfan sulfate	37,000	4.3 U	NA	4.4 U	4.8 J	9.4 U	22	4 U	1 J	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U
Endrin	1,800	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U
Endrin ketone	1,800	4.3 U	NA	4.4 U	2 J	9.4 U	1.5 J	4 U	0.51 J	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U
alpha-Chlordane	1,600	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U
gamma-Chlordane	1,600	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U
Explosives (UG_KG)																			
Nitrobenzene	2,000	99 U	NA	120 U	100 U	120 U	100 U	120 U	30 J	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U
Grain Size (PCT)																			
GS08 Sieve 0.75" (19.0 mm)	--	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	100	NA	NA
GS10 Sieve 0.375" (9.5 mm)	--	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	100	NA	NA
Sieve No. 004 (4.75 mm)	--	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	96.5	NA	NA
Sieve No. 010 (2.00 mm)	--	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.1	NA	NA	95.3	NA	NA
Sieve No. 020 (850 um)	--	NA	95.8	NA	NA	NA	NA	NA	NA	92.1	NA	NA	NA	89.7	NA	NA	94.1	NA	NA
Sieve No. 040 (425 um)	--	NA	47.8	NA	NA	NA	NA	NA	NA	47.9	NA	NA	NA	69.8	NA	NA	90.6	NA	NA
Sieve No. 060 (250 um)	--	NA	22.0	NA	NA	NA	NA	NA	NA	19.4	NA	NA	NA	56.7	NA	NA	88.8	NA	NA
Sieve No. 100 (150 um)	--	NA	19.8	NA	NA	NA	NA	NA	NA	13.7	NA	NA	NA	47.9	NA	NA	87.7	NA	NA
Sieve No. 140 (106 um)	--	NA	18.4	NA	NA	NA	NA	NA	NA	12.6	NA	NA	NA	44.0	NA	NA	86.5	NA	NA
Sieve No. 200 (75 um)	--	NA	16.1	NA	NA	NA	NA	NA	NA	11.8	NA	NA	NA	40.8	NA	NA	85.3	NA	NA
Total Metals (MG_KG)																			
Aluminum	7,600	1,580 J	NA	265	15,400 J	17,500	6,380 J	1,330	5,120	NA	3,730	4,930	1,620	NA	3,180	7,550	NA	8,340	11,400
Antimony	3.1	0.49 U	NA	6 U	0.72 U	12.4 U	0.65 U	0.39 J	0.59 UJ	NA	8.1 U	11.6 U	0.55 UJ	NA	7.2 UJ	2.8 UJ	NA	17 UJ	3.3 UJ
Arsenic	0.39	4.1	NA	0.42 J	1.5 J	4.3	2.8 J	2.9	3.5	NA	1.1 J	1.9 J	1 J	NA	1.5	2.6 U	NA	4.6	3 J
Barium	540	3.7 J	NA	3.6 J	60.3	30.4 J	7.9	1.5 J	36.9 U	NA	5.6 J	9.2 J	34.7 U	NA	3.6 J	178 U	NA	8.9 J	208 U
Beryllium	15	0.12 J	NA	0.5 U	0.39 J	0.48 J	0.14 J	0.038 J	0.92 U	NA	0.073 J	0.1 J	0.87 U	NA	0.6 U	4.5 U	NA	0.14 J	5.2 U
Cadmium	3.7	0.061 U	NA	0.5 U	0.09 U	0.14 J	1 U	0.45 U	0.074 U	NA	0.087 J	0.13 J	0.069 U	NA	0.063 J	0.36 U	NA	0.33 J	0.42 U
Calcium	--	806	NA	128 J	1,620	2,860	1,010 U	338 J	922 U	NA	1,270	1,750	867 U	NA	601 J	8,590	NA	3,670	7,900
Chromium	22	10 J	NA	0.84 J	10 J	8.8	9 J	6.8	8.7	NA	3.9	6.8	3.7	NA	4.8 J	7.3 J	NA	10.6 J	11.9
Cobalt	140	0.14 U	NA	5 U	0.23 J	0.62 J	0.29 J	0.14 J	0.17 U	NA	0.3 J	0.45 J	0.16 U	NA	0.28 J	0.8 U	NA	1.4 J	0.94 U
Copper	310	2.1 J	NA	2.5 U	3.7 J	5.2 U	3.5 J	2.2 U	14.1	NA	3.4 U	5.6 U	4.3 U	NA	1.7 J	199	NA	22	26 U
Iron	2,300	11,800 J	NA	682	2,640 J	4,410	4,920 J	10,800	6,480 J	NA	1,730	3,270	2,860 J	NA	3,300	4,160 J	NA	7,770	3,840 J
Lead	400	6.3 J	NA	0.96 J	64.1 J	15.5	28.6 J	5.2	49.8	NA	6	7.7	5.4	NA	6.2 J	32.6	NA	37.2 J	33.6
Magnesium	--	770 U	NA	200 J	1,380	3,310	1,010 U	491	922 U	NA	1,650	2,220	867 U	NA	952	7,720	NA	4,130	5,660
Manganese	180	5.2	NA	1.5 U	12.4	13.3	5	4.9	3.3	NA	4.8	8.4	4.9	NA	5.6	20.7	NA	19.7	19.8
Mercury	2.3	0.019 U	NA	0.12 U	0.064	0.076 J	0.06	0.044 J	0.073	NA	0.02 J	0.03 J	0.021 U	NA	0.057 U	0.19 J	NA	0.073 J	0.12 U
Nickel	160	0.4 J	NA	4 U	2.9 J	3.1 J	1.9 J	0.58 J	0.81 J	NA	1.1 J	2.2 J	0.29 J	NA	4.8 U	2.6 J	NA	11.4 U	4.7 J
Potassium	--	149 J	NA	499 U	588 J	1,110	381 J	446 U	922 U	NA	453 J	628 J	867 U	NA	464 J	4,450 U	NA	1,250 J	5,200 U
Selenium	39	0.49 J	NA	0.42 U	0.7 U	7.2 U	0.63 J	3.1 U	0.86 J	NA	4.7 U	6.8 U	0.54 U	NA	4.2 U	4 J	NA	9.9 U	3.2 U
Sodium	--	1,800	NA	1,340	1,580	12,900	1,140	1,290	1,090	NA	6,250	8,370	867 U	NA	3,750	11,700	NA	15,100	7,300
Vanadium	7.8	25.2 J	NA	1.3 J	15.3 J	14	14.2 J	21.7	17	NA	5.3 J	7.2 J	6.1 J	NA	6.6	44.5 J	NA	18.8	13.4 J
Zinc	2,300	6.9 J	NA	6 U	18 J	11.9 J	56.7 J	6.8	9.9	NA	13.9	13	4.8	NA	8	39.9	NA	68.7	22.8
Wet Chemistry (MG_KG)																			
% Solids	--	77	NA	NA	54	NA	57	NA	80	NA	NA	NA	74	NA	NA	16	NA	NA	13
Total organic carbon (TOC)	--	9,700	NA	NA	60,000	NA	18,000	NA	18,000	NA	NA	NA	9,000	NA	NA	420,000	NA	NA	410,000
pH	--	6.2	NA	NA	6.2	NA	5	NA	6	NA	NA	NA	4.6	NA	NA	5.6	NA	NA	6
Total Petroleum Hydrocarbons (MG_KG)																			
Oil and Grease	--	320 U	NA	NA	440 U	NA	430 U	NA	300 U	NA	NA	NA	330 U	NA	NA	1,500 U	NA	NA	1,900 U
TPH-diesel range	--	14 U	NA	NA	10 U	NA	180	NA	30 U	NA	NA	NA	9.8 U	NA	NA	130	NA	NA	290

Notes:
Shading represents exceedance of PRGs
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
PRGs- Preliminary Remediation Goals
[1] SD07 not required to be sampled in 2007
[2] SD09 not required to be sampled in 2007
[3] SD10 could not reach sampling location in 2007
* A duplicate sample was collected. Most conservative results shown

TABLE 4-6
Sediment Analytical Results
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina
April 2006 and September 2007

Station ID	Region IX PRGs - Residential Soil Adjusted	MR04-SD08/SW08		MR04-SD09/SW09[2]		MR04-SD10/SW10[3]
Sample ID		MR04-SD08-06A	MR04-SD08-07C	MR04-SD09-06A	MR04-SD09-06B	MR04-SD10-06A
Sample Date		04/02/06	09/07/07	04/02/06	04/17/06	04/02/06
Chemical Name						
Volatile Organic Compounds (UG_KG)						
2-Butanone	2,200,000	16 UJ	56 J	64 UJ	NA	60 UJ
Acetone	1,400,000	16 UJ	270	64 UJ	NA	60 UJ
Carbon disulfide	36,000	16 U	63 U	64 U	NA	60 U
Methyl acetate	2,200,000	16 UJ	31 J	64 UJ	NA	60 UJ
Semi-volatile Organic Compounds (UG_KG)						
4-Methylphenol	31,000	54 J	2,100 U	2,100 U	NA	2,000 U
Acetophenone	--	520 U	130 J	2,100 U	NA	2,000 U
Benzaldehyde	610,000	520 UJ	460 J	2,100 UJ	NA	2,000 UJ
Benzo(a)anthracene	620	520 U	2,100 U	2,100 U	NA	2,000 U
Benzo(a)pyrene	62	520 U	300 J	2,100 U	NA	2,000 U
Benzo(b)fluoranthene	620	520 U	530 J	2,100 U	NA	2,000 U
Benzo(g,h,i)perylene	230,000	520 U	190 J	2,100 U	NA	2,000 U
Benzo(k)fluoranthene	6,200	520 U	490 J	2,100 U	NA	2,000 U
Butylbenzylphthalate	1,200,000	520 U	2,100 U	2,100 UJ	NA	2,000 UJ
Chrysene	62,000	520 U	370 J	2,100 U	NA	2,000 U
Fluoranthene	230,000	520 U	610 J	270 J	NA	2,000 U
Indeno(1,2,3-cd)pyrene	620	520 U	170 J	2,100 U	NA	2,000 U
Phenanthrene	230,000	520 U	2,100 U	2,100 U	NA	2,000 U
Pyrene	230,000	520 U	650 J	2,100 U	NA	2,000 U
bis(2-Ethylhexyl)phthalate	35,000	56 J	490 J	1,300 J	NA	1,400 J
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	2,400	1.2 J	23 J	41	NA	3.6 J
4,4'-DDE	1,700	9.1	27	74	NA	38
4,4'-DDT	1,700	1.1 J	11 J	4.8 J	NA	9.4 J
Aldrin	29	2.6 U	5.4 J	11 U	NA	9.9 U
Dieldrin	30	0.74 J	23	4.3 J	NA	6.8 J
Endosulfan sulfate	37,000	5.2 U	21 U	85	NA	12 J
Endrin	1,800	5.2 U	21 U	21 U	NA	4.1 J
Endrin ketone	1,800	0.88 J	21 U	24	NA	8.2 J
alpha-Chlordane	1,600	2.6 U	12	2.4 J	NA	9.9 U
gamma-Chlordane	1,600	2.6 U	12	4.8 J	NA	9.9 U
Explosives (UG_KG)						
Nitrobenzene	2,000	100 U	120 U	100 U	NA	100 U
Grain Size (PCT)						
GS08 Sieve 0.75" (19.0 mm)	--	NA	NA	NA	100	NA
GS10 Sieve 0.375" (9.5 mm)	--	NA	NA	NA	100	NA
Sieve No. 004 (4.75 mm)	--	NA	NA	NA	100	NA
Sieve No. 010 (2.00 mm)	--	NA	NA	NA	100	NA
Sieve No. 020 (850 um)	--	NA	NA	NA	97.2	NA
Sieve No. 040 (425 um)	--	NA	NA	NA	91.5	NA
Sieve No. 060 (250 um)	--	NA	NA	NA	88.7	NA
Sieve No. 100 (150 um)	--	NA	NA	NA	85.9	NA
Sieve No. 140 (106 um)	--	NA	NA	NA	83.1	NA
Sieve No. 200 (75 um)	--	NA	NA	NA	80.2	NA
Total Metals (MG_KG)						
Aluminum	7,600	3,760	11,500	12,300	NA	16,800
Antimony	3.1	0.61 UJ	27.7 U	2.8 UJ	NA	2.7 UJ
Arsenic	0.39	0.59 J	4.8	3.1 J	NA	3 J
Barium	540	38.2 U	14.1 J	175 U	NA	167 U
Beryllium	15	0.96 U	0.36 J	4.4 U	NA	4.2 U
Cadmium	3.7	0.093 J	0.46 J	0.43 J	NA	0.33 U
Calcium	--	956 U	6,610	12,200	NA	9,370
Chromium	22	4.7	13.9	16.3	NA	19.8
Cobalt	140	0.17 U	1.6 J	0.79 U	NA	0.75 U
Copper	310	4.8 U	11.3 J	21.9 U	NA	20.8 U
Iron	2,300	1,270 J	9,390	6,100 J	NA	5,630 J
Lead	400	16.9	47.5	92	NA	112
Magnesium	--	956 U	7,920	4,380 U	NA	4,160 U
Manganese	180	3.4	17.6	13.6	NA	13.6
Mercury	2.3	0.12	0.076 J	0.2 J	NA	0.24
Nickel	160	0.79 J	6.4 J	5.3 J	NA	5.1 J
Potassium	--	178 U	2,220 J	4,380 U	NA	4,160 U
Selenium	39	0.59 U	16.2 U	3 J	NA	4 J
Sodium	--	956 U	33,400	4,380 U	NA	4,160 U
Vanadium	7.8	5.2 J	27.4	21.5 J	NA	27.4 J
Zinc	2,300	18	91.2	90.1	NA	63.5
Wet Chemistry (MG_KG)						
% Solids	--	64	NA	16	NA	17
Total organic carbon (TOC)	--	50,000	NA	270,000	NA	420,000
pH	--	4.8	NA	6.3	NA	5.6
Total Petroleum Hydrocarbons (MG_KG)						
Oil and Grease	--	380 U	NA	1,800	NA	1,500 U
TPH-diesel range	--	30 U	NA	120 U	NA	110 U

Notes:
Shading represents exceedance of PRGs
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
PRGs- Preliminary Remediation Goals
[1] SD07 not required to be sampled in 2007
[2] SD09 not required to be sampled in 2007
[3] SD10 could not reach sampling location in 2007
* A duplicate sample was collected. Most conservative results shown

TABLE 5-1
Summary of Samples Evaluated in Phases I and II of the Human Health Risk Evaluation
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Medium	Date of Sampling	Sample	Parameters Evaluated for Human Health Risk Assessment
Surface and Subsurface Soil			
	03/14/06	MR04-SS01-0-4	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS02-0-2	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS03-8-12	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/13/06	MR04-SS04-0-2	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS05-0-4	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS05-0-4D[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/14/06	MR04-SS06-2-4	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS07-4-6	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/14/06	MR04-SS08-0-2	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/15/06	MR04-SS09-2-4	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	03/14/06	MR04-SS10-0-2	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/13/07	MR04-IS11-2-4-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/13/07	MR04-IS11D-2-4-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/13/07	MR04-IS12-18-20-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/13/07	MR04-IS12D-18-20-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS13-12-14-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/13/06	MR04-IS14-8-10-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS15-13-15-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS16-7-9-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS17-9-11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS18-7-9-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS19-7-9-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS20-7-9-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS21-8-10-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS22-7-9-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS23-7-10-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS24-9-11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS25-9-11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS26-12-14-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS27-9-11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/11/07	MR04-IS28-9-11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/10/07	MR04-IS29-10-12-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/10/07	MR04-IS30-10-12-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS31-2-4-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS32-12-14-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS32D-12-14-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS33-12-14-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
	09/12/07	MR04-IS34-13-15-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals and Cyanide
Surface Water			
	04/01/06	MR04-SW01-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/06/07	MR04-SW01-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/01/06	MR04-SW02-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/06/07	MR04-SW02-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/01/06	MR04-SW03-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW03-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/01/06	MR04-SW04-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW04-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW04D-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW05-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW05-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW06-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW06-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW07-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW08-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/07/07	MR04-SW08-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW09-06A[2]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	04/02/06	MR04-SW10-06A[2]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide

TABLE 5-1
Summary of Samples Evaluated in Phases I and II of the Human Health Risk Evaluation
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Medium	Date of Sampling	Sample	Parameters Evaluated for Human Health Risk Assessment
Sediment			
	04/01/06	MR04-SD01-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/06/07	MR04-SD01-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals, and Cyanide
	04/01/06	MR04-SD02-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/06/07	MR04-SD02-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/01/06	MR04-SD03-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/07/07	MR04-SD03-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/01/06	MR04-SD04-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/07/07	MR04-SD04-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	09/07/07	MR04-SD04D-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/02/06	MR04-SD05-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/07/07	MR04-SD05-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/02/06	MR04-SD06-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/07/07	MR04-SD06-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/02/06	MR04-SD07-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	04/02/06	MR04-SD08-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	09/07/07	MR04-SD08-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
	04/02/06	MR04-SD09-06A[2]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals, and Cyanide
	04/02/06	MR04-SD10-06A[2]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals
Groundwater			
	03/28/06	MR04-MW01-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW01-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW01D-07C[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	04/01/06	MR04-MW02-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/12/07	MR04-GW02-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/28/06	MR04-MW03-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW03-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/30/06	MR04-MW04-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW04-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/29/06	MR04-MW05-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW05-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/31/06	MR04-MW06-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/12/07	MR04-GW06-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/28/06	MR04-MW07-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/06/07	MR04-GW07-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/30/06	MR04-MW08-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	03/30/06	MR04-MW08-06A-D[1]	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/08/07	MR04-GW08-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/30/06	MR04-MW09-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/08/07	MR04-GW09-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/29/06	MR04-MW10-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/06/07	MR04-GW10-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/29/06	MR04-MW11-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/09/07	MR04-GW11-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/31/06	MR04-MW12-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/12/07	MR04-GW12-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/31/06	MR04-MW13-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/08/07	MR04-GW13-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/29/06	MR04-MW14-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/08/07	MR04-GW14-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide
	03/31/06	MR04-MW15-06A	VOCs, SVOCs, Pesticides/PCBs, Explosives, Perchlorate, Metals (dissolved and total), and total Cyanide
	09/08/07	MR04-GW15-07C	VOCs, SVOCs, Pesticides/PCBs, Explosives, Metals (dissolved and total), and total Cyanide

1. Duplicate sample.
2. Upgradient sample, not included in data set evaluated for media.

TABLE 5-2

Summary of COPCs for the Phase II Risk Evaluation
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Surface Water
bis(2-Ethylhexyl)phthalate
4,4'-DDD
Dieldrin
Heptachlor
alpha-BHC
beta-BHC
Aluminum
Arsenic
Iron
Manganese
Thallium
Vanadium
Groundwater
Chloroform
bis(2-Ethylhexyl)phthalate
Heptachlor epoxide
4-Nitrotoluene
Barium
Chromium
Thallium
Vanadium
Groundwater - Air
Chloroform

Note: bis(2-ethylhexyl)phthalate, heptachlor epoxide, chromium, iron, manganese, and thallium groundwater concentrations exceeded the NC Maximum Allowable Concentration or MCL in at least one sample.

TABLE 5-3
Potentially Complete Human Health Exposure Pathways for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Land Use	Exposure Media	Potentially Exposed Populations	Exposure Route (Human Health)	Pathway Selected for Evaluation	Rationale
Current/Future					
Residential	Surface Water	Recreational	Ingestion and Dermal Contact	Yes	Nearby residents or base workers could contact surface water while recreationally using (i.e., swimming) surface water bodies nearby Knox Park.
Industrial	Groundwater	Residential	Ingestion, Dermal Contact, and Inhalation	No	Groundwater not currently used as potable water supply
Future					
Residential	Groundwater	Resident - Adult and Child	Ingestion, Dermal Contact and Inhalation	Yes	Although unlikely, if site used for future residential development, groundwater could be used as a water supply and residents could ingest, inhale, or have dermal contact with groundwater

Table 5-4
Summary of RME Cancer Risks and Hazard Indices for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Current/Future Recreational Adult	Surface Water	Ingestion	1.3E-06			Arsenic	0.018	
		Dermal Contact	1.4E-06				0.046	
		Inhalation	NA				NA	
		Total	2.7E-06			Arsenic	0.065	
Current/Future Recreational Youth	Surface Water	Ingestion	8.7E-07				0.029	
		Dermal Contact	6.5E-07				0.053	
		Inhalation	NA				NA	
		Total	1.5E-06			Arsenic	0.081	
Current/Future Recreational Child	Surface Soil	Ingestion	1.6E-06			Arsenic	0.086	
		Dermal Contact	5.8E-07				0.079	
		Inhalation	NA				NA	
		Total	2.1E-06			Arsenic	0.16	
Future Resident Adult	Groundwater	Ingestion	NA				0.71	
		Dermal Contact	NA				0.13	
		Inhalation	NA				0.0030	
		Total	NA				0.84	
Future Resident Child	Groundwater	Ingestion	NA				3.3	Thallium
		Dermal Contact	NA				0.36	
		Inhalation	NA				0.016	
		Total	NA				3.7	Thallium
Future Resident Child/Adult	Groundwater	Ingestion	6.2E-06			Bis(2-ethylhexyl)phthalate, Heptachlor epoxide	NA	
		Dermal Contact	4.0E-06			Bis(2-ethylhexyl)phthalate, Heptachlor epoxide	NA	
		Inhalation	2.7E-06			Chloroform	NA	
		Total	1.3E-05			Chloroform, Bis(2-ethylhexyl)phthalate, Heptachlor epoxide	NA	
Future Construction Worker Adult	Groundwater	Ingestion	NA				NA	
		Dermal Contact	3.3E-09				0.0028	
		Inhalation	9.4E-08				0.0058	
		Total	9.7E-08				0.0086	

Table 5-5
Summary of RME Cancer Risks and Hazard Indices for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Future Resident Child	Groundwater	Ingestion	NA				1.1	
		Dermal Contact	NA				0.10	
		Inhalation	NA				0.0029	
		Total	NA				1.2	

TABLE 5-6
Occurrance, Distribution and Selection of COPC in Sediment
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

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 Contaminant Deletion or Selection
UXO-04 Sediment	78-93-3	2-Butanone	1.4E-02 J	5.6E-02 J	MG/KG	MR04-SD08-07C	3/15	0.012 - 0.076	5.6E-02	NA	2.2E+03 N	NA	NA	NO	BSL
	67-64-1	Acetone	7.4E-03 J	2.7E-01	MG/KG	MR04-SD08-07C	6/15	0.012 - 0.076	2.7E-01	NA	1.4E+03 N	NA	NA	NO	BSL
	75-15-0	Carbon disulfide	1.5E-03 J	3.7E-03 J	MG/KG	MR04-SD06-07C	2/15	0.012 - 0.076	3.7E-03	NA	3.6E+01 N	NA	NA	NO	BSL
	79-20-9	Methyl acetate	2.2E-02 J	3.1E-02 J	MG/KG	MR04-SD08-07C	2/15	0.012 - 0.076	3.1E-02	NA	2.2E+03 N	NA	NA	NO	BSL
	106-44-5	4-Methylphenol	5.4E-02 J	5.4E-02 J	MG/KG	MR04-SD08-06A	1/15	0.4 - 2.5	5.4E-02	NA	3.1E+01 N	NA	NA	NO	BSL
	98-86-2	Acetophenone	4.8E-02 J	1.3E-01 J	MG/KG	MR04-SD08-07C	5/15	0.4 - 2.5	1.3E-01	NA	NA	NA	NA	NO	BSL
	100-52-7	Benzaldehyde	9.8E-02 J	4.6E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	4.6E-01	NA	6.1E+02 N	NA	NA	NO	BSL
	56-55-3	Benzo(a)anthracene	2.5E-02 J	2.5E-02 J	MG/KG	MR04-SD03-07C	1/15	0.4 - 2.5	2.5E-02	NA	6.2E-01 C	NA	NA	NO	BSL
	50-32-8	Benzo(a)pyrene	2.3E-02 J	3.0E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	3.0E-01	NA	6.2E-02 C	NA	NA	YES	ASL
	205-99-2	Benzo(b)fluoranthene	2.6E-02 J	5.3E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	5.3E-01	NA	6.2E-01 C	NA	NA	NO	BSL
	191-24-2	Benzo(g,h,i)perylene	1.9E-01 J	1.9E-01 J	MG/KG	MR04-SD08-07C	1/15	0.4 - 2.5	1.9E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	207-08-9	Benzo(k)fluoranthene	2.5E-02 J	4.9E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	4.9E-01	NA	6.2E+00 C	NA	NA	NO	BSL
	85-68-7	Butylbenzylphthalate	2.6E-02 J	1.4E-01 J	MG/KG	MR04-SD06-07C	2/15	0.4 - 2.5	1.4E-01	NA	1.2E+03 N	NA	NA	NO	BSL
	218-01-9	Chrysene	2.8E-02 J	3.7E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	3.7E-01	NA	6.2E+01 C	NA	NA	NO	BSL
	206-44-0	Fluoranthene	4.7E-02 J	6.1E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	6.1E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	193-39-5	Indeno(1,2,3-cd)pyrene	1.7E-01 J	1.7E-01 J	MG/KG	MR04-SD08-07C	1/15	0.4 - 2.5	1.7E-01	NA	6.2E-01 C	NA	NA	NO	BSL
	85-01-8	Phenanthrene	3.7E-02 J	3.7E-02 J	MG/KG	MR04-SD03-07C	1/15	0.4 - 2.5	3.7E-02	NA	2.3E+02 N	NA	NA	NO	BSL
	129-00-0	Pyrene	8.3E-02 J	6.5E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	6.5E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	3.7E-02 J	4.9E-01 J	MG/KG	MR04-SD08-07C	9/15	0.4 - 2.5	4.9E-01	NA	3.5E+01 C	NA	NA	NO	BSL
	72-54-8	4,4'-DDD	1.2E-03 J	1.1E+00	MG/KG	MR04-SD02-06A	12/15	0.004 - 0.12	1.1E+00	NA	2.4E+00 C	NA	NA	NO	BSL
	72-55-9	4,4'-DDE	1.1E-03 J	5.2E-01	MG/KG	MR04-SD03-06A	13/15	0.004 - 0.12	5.2E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	50-29-3	4,4'-DDT	8.6E-04 J	1.9E-01	MG/KG	MR04-SD03-06A	8/15	0.004 - 0.12	1.9E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	309-00-2	Aldrin	5.4E-03 J	5.4E-03 J	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	5.4E-03	NA	2.9E-02 C	NA	NA	NO	BSL
	60-57-1	Dieldrin	7.4E-04 J	2.3E-02	MG/KG	MR04-SD08-07C	3/15	0.004 - 0.025	2.3E-02	NA	3.0E-02 C	NA	NA	NO	BSL
	1031-07-8	Endosulfan sulfate	1.0E-03 J	2.2E-02	MG/KG	MR04-SD03-06A	3/15	0.004 - 0.025	2.2E-02	NA	3.7E+01 N	NA	NA	NO	BSL
	53494-70-5	Endrin ketone	5.1E-04 J	2.0E-03 J	MG/KG	MR04-SD02-06A	4/15	0.004 - 0.025	2.0E-03	NA	3.7E+01 N	NA	NA	NO	BSL
	5103-71-9	alpha-Chlordane	1.2E-02	1.2E-02	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	1.2E-02	NA	1.6E+00 C	NA	NA	NO	BSL
	5103-74-2	gamma-Chlordane	1.2E-02	1.2E-02	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	1.2E-02	NA	1.6E+00 C	NA	NA	NO	BSL
	98-95-3	Nitrobenzene	3.0E-02 J	3.0E-02 J	MG/KG	MR04-SD04-06A	1/15	0.098 - 0.12	3.0E-02	NA	2.0E+00 N	NA	NA	NO	BSL
	7429-90-5	Aluminum	2.7E+02	1.8E+04	MG/KG	MR04-SD02-07C	15/15	17.8 - 208	1.8E+04	NA	7.6E+03 N	NA	NA	YES	ASL
	7440-36-0	Antimony	3.9E-01 J	3.9E-01 J	MG/KG	MR04-SD03-07C	1/15	5.4 - 62.4	3.9E-01	NA	3.1E+00 N	NA	NA	NO	BSL
	7440-38-2	Arsenic	4.2E-01 J	4.8E+00	MG/KG	MR04-SD08-07C	14/15	0.89 - 10.4	4.8E+00	NA	3.9E-01 C	NA	NA	YES	ASL

TABLE 5-6
Occurrance, Distribution and Selection of COPC in Sediment
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

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 Contaminant Deletion or Selection
	7440-39-3	Barium	1.5E+00	J	6.0E+01		MG/KG	MR04-SD02-06A	10/15	16.2 - 208	6.0E+01	NA	5.4E+02 N	NA	NA	NO	BSL
	7440-41-7	Beryllium	3.8E-02	J	4.8E-01	J	MG/KG	MR04-SD02-07C	8/15	0.45 - 5.2	4.8E-01	NA	1.5E+01 N	NA	NA	NO	BSL
	7440-43-9	Cadmium	6.3E-02	J	4.6E-01	J	MG/KG	MR04-SD08-07C	6/15	0.45 - 5.2	4.6E-01	NA	3.7E+00 N	NA	NA	NO	BSL
	7440-70-2	Calcium	1.3E+02	J	8.6E+03		MG/KG	MR04-SD06-06A	11/15	446 - 5200	8.6E+03	NA	NA	NA	NA	NO	BSL
	7440-47-3	Chromium	8.4E-01	J	1.4E+01		MG/KG	MR04-SD08-07C	15/15	0.89 - 10.4	1.4E+01	NA	2.1E+02 N	NA	NA	NO	BSL
	7440-48-4	Cobalt	1.4E-01	J	1.6E+00	J	MG/KG	MR04-SD08-07C	8/15	4.5 - 52	1.6E+00	NA	9.0E+02 N	NA	NA	NO	BSL
	7440-50-8	Copper	1.7E+00	J	2.0E+02		MG/KG	MR04-SD06-06A	8/15	2.2 - 26	2.0E+02	NA	3.1E+02 N	NA	NA	NO	BSL
	7439-89-6	Iron	6.8E+02		1.2E+04	J	MG/KG	MR04-SD01-06A	15/15	8.9 - 104	1.2E+04	NA	2.3E+03 N	NA	NA	YES	ASL
	7439-92-1	Lead	9.6E-01	J	6.4E+01	J	MG/KG	MR04-SD02-06A	15/15	0.46 - 4.6	6.4E+01	NA	4.0E+02	NA	NA	NO	BSL
	7439-95-4	Magnesium	2.0E+02	J	7.9E+03		MG/KG	MR04-SD08-07C	10/15	446 - 5200	7.9E+03	NA	NA	NA	NA	NO	BSL
	7439-96-5	Manganese	3.3E+00		2.1E+01		MG/KG	MR04-SD06-06A	14/15	1.3 - 15.6	2.1E+01	NA	1.8E+02 N	NA	NA	NO	BSL
	7439-97-6	Mercury	3.0E-02	J	1.9E-01	J	MG/KG	MR04-SD06-06A	10/15	0.031 - 0.32	1.9E-01	NA	2.3E+00 N	NA	NA	NO	BSL
	7440-02-0	Nickel	2.9E-01	J	6.4E+00	J	MG/KG	MR04-SD08-07C	12/15	3.6 - 41.6	6.4E+00	NA	1.6E+02 N	NA	NA	NO	BSL
	7440-09-7	Potassium	1.5E+02	J	2.2E+03	J	MG/KG	MR04-SD08-07C	8/15	446 - 5200	2.2E+03	NA	NA	NA	NA	NO	BSL
	7782-49-2	Selenium	4.9E-01	J	4.0E+00	J	MG/KG	MR04-SD06-06A	4/15	0.77 - 16.2	4.0E+00	NA	3.9E+01 N	NA	NA	NO	BSL
	7440-23-5	Sodium	1.1E+03		3.3E+04		MG/KG	MR04-SD08-07C	13/15	446 - 5200	3.3E+04	NA	NA	NA	NA	NO	BSL
	7440-62-2	Vanadium	1.3E+00	J	4.5E+01	J	MG/KG	MR04-SD06-06A	15/15	4.5 - 52	4.5E+01	NA	7.8E+00 N	NA	NA	YES	ASL
	7440-66-6	Zinc	4.8E+00		9.1E+01		MG/KG	MR04-SD08-07C	14/15	3.1 - 27.7	9.1E+01	NA	2.3E+03 N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening.
[3] Background values not available.
[4] EPA Region 9 PRGs Table, October 2004, U.S. EPA Region 9, Residential Soil (based on 10 -6 for carcinogens and HQ of 0.1 for noncarcinogens).
PRG value for hexavalent chromium used for total chromium.
PRG for pyrene used as surrogate for benzo(g,h,i)perlyene and phenanthrene.
PRG value for chlordane is used as surrogate for alpha and gamma chlordane.
PRG value for methyl mercury used as surrogate for mercury.
PRG value for endosulfan used as surrogate for endosulfan sulfate.
PRG value for endrin used as surrogate for endrin ketone.
[5] Rationale Codes — Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic

TABLE 5-7
Risk Ratio Screening for Sediment, Maximum Detected Concentration
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Analyte	Detection Frequency	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semivolatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	3 / 15	3.0E-01 J	MR04-SD08-07C	6.2E-02	1E-06		5E-06	
Metals (mg/kg)								
Aluminum	15 / 15	1.8E+04	MR04-SD02-07C	7.6E+04	1	0.2		Neurological
Arsenic	14 / 15	4.8E+00	MR04-SD08-07C	3.9E-01	1E-06		1E-05	
Iron	15 / 15	1.2E+04 J	MR04-SD01-06A	2.3E+04	1	0.5		Blood, Gastrointestinal, Liver
Vanadium	**15 / 15**	**4.5E+01**	**MR04-SD06-06A**	**7.8E+01**	**1**	**0.6**		**Kidney**
Cumulative Corresponding Hazard Index[c]						**1.3**		
Cumulative Corresponding Cancer Risk[d]							**2E-05**	

Total Blood HI =	0.5
Total Gastrointestinal HI =	0.5
Total Liver HI =	0.5
Total Kidney HI =	0.6
Total Neurological HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Table 5-8
Risk Ratio Screening for Sediment, 95% UCL Concentration
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Analyte	Detection Frequency	95% UCL	95% UCL Rationale	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Target Organ
Metals (ug/L)							
Vanadium	15 / 15	20.8 95% Stud-t	2	7.8E+01	1	0.3	Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]						**0.3**	
Cumulative Corresponding Cancer Risk[a]							
						Total Blood HI =	0.3
						Total Gastrointestinal HI =	0.3
						Total Liver HI =	0.3

[a] Corresponding Hazard Index equals 95% UCL divided by the RBC divided by the acceptable risk level.
[b] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
Constituent selected as COPC if it contributes tc a Total Hazard Index by target organ greater than 0.5, otherwise, constituent not selected as COPC
Constituents selected as COPCs are indicated by shading.
ug/L = micrograms per liter
HI = Hazard Index

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration; for duplicate sample results, the maximum value was used in the calculation.
ProUCL, Version 4.0 used to determine distribution of data and calculate 95% UCL, following recommendations
in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: 95% Lands H-statistic (95% H-UCL); 95% Student-t UCL (95% Stud-t)

UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Anderson-Darling Test indicates data are gamma distributed.
(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.
(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).

TABLE 5-9
Occurrence, Distribution and Selection of COPC in Groundwater
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

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
Groundwater	67-64-1	Acetone	5.8E+00 J	5.8E+00 J	UG/L	MR04-GW06-07C	1/16	5 - 10	5.8E+00	NA	5.5E+02 nc	7.0E+02	15A NCAC 2L	NO	BSL
	67-66-3	Chloroform	1.2E+00	5.1E+00 J	UG/L	MR04-MW02-06A	2/30	0.5 - 10	5.1E+00	NA	1.7E-01 ca	8.0E+01	MCL	YES	ASL
										NA		7.0E+01	15A NCAC 2L		
	74-87-3	Chloromethane	2.0E-01 J	2.8E-01 J	UG/L	MR04-GW03-07C	4/30	0.5 - 10	2.8E-01	NA	1.6E+01 nc	2.6E+00	15A NCAC 2L	NO	BSL
	108-88-3	Toluene	1.2E+00 J	5.0E+00 J	UG/L	MR04-MW12-06A	4/30	0.5 - 10	5.0E+00	NA	7.2E+01 nc	1.0E+03	MCL, 15A NCAC 2L	NO	BSL
	106-44-5	4-Methylphenol	1.2E+00 J	1.2E+00 J	UG/L	MR04-MW10-06A	1/30	4.8 - 13	1.2E+00	NA	1.8E+01 nc	3.5E+00	15A NCAC 2L	NO	BSL
	98-86-2	Acetophenone	1.1E+00 J	1.1E+00 J	UG/L	MR04-MW07-06A	1/30	4.8 - 13	1.1E+00	NA	NA	NA		NO	NTX
	84-74-2	Di-n-butylphthalate	6.7E-01 J	1.1E+00 J	UG/L	MR04-GW11-07C	2/30	4.8 - 13	1.1E+00	NA	3.6E+02 nc	7.0E+02	15A NCAC 2L	NO	BSL
	84-66-2	Diethylphthalate	2.1E+00 J	2.1E+00 J	UG/L	MR04-GW15-07C	1/30	4.8 - 13	2.1E+00	NA	2.9E+03 nc	5.0E+03	15A NCAC 2L	NO	BSL
	108-95-2	Phenol	6.2E-01 J	6.2E-01 J	UG/L	MR04-GW06-07C	1/30	4.8 - 13	6.2E-01	NA	1.1E+03 nc	3.0E+02	15A NCAC 2L	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	1.0E+00 J	8.1E+00 J	UG/L	MR04-MW08-06A	8/30	4.8 - 13	8.1E+00	NA	4.8E+00 ca	6.0E+00	MCL	YES	ASL
	1024-57-3	Heptachlor epoxide	1.2E-01	2.1E-01	UG/L	MR04-MW13-06A	3/30	0.0094 - 0.13	2.1E-01	NA	7.4E-03 ca*	2.0E-01	MCL	YES	ASL
										NA		3.8E-03	15A NCAC 2L		
	319-85-7	beta-BHC	4.8E-03 J	4.8E-03 J	UG/L	MR04-GW11-07C	1/30	0.0094 - 0.13	4.8E-03	NA	3.7E-02 ca	1.9E-02	15A NCAC 2L	NO	BSL
	118-96-7	2,4,6-Trinitrotoluene	6.5E-02 J	6.5E-02 J	UG/L	MR04-MW06-06A	1/30	0.25 - 0.26	6.5E-02	NA	1.8E+00 ca**	NA		NO	BSL
	121-14-2	2,4-Dinitrotoluene	9.6E-02 J	2.0E-01 J	UG/L	MR04-MW07-06A	2/30	0.25 - 0.26	2.0E-01	NA	7.3E+00 nc	NA		NO	BSL
	606-20-2	2,6-Dinitrotoluene	3.2E-01	3.2E-01	UG/L	MR04-MW12-06A	1/30	0.25 - 0.26	3.2E-01	NA	3.6E+00 nc	NA		NO	BSL
	99-99-0	4-Nitrotoluene	1.3E-01 J	1.6E+00	UG/L	MR04-MW07-06A	7/30	0.25 - 0.52	1.6E+00	NA	6.6E-01 ca*	NA		YES	ASL
	98-95-3	Nitrobenzene	7.7E-02 J	1.0E-01 J	UG/L	MR04-MW09-06A	2/30	0.25 - 0.26	1.0E-01	NA	3.4E-01 nc	NA		NO	BSL
	14797-73-0	Perchlorate	1.3E+00	1.3E+00	UG/L	MR04-MW15-06A	1/15	1 - 2	1.3E+00	NA	3.6E+00 ca/nc	NA		NO	BSL
	7429-90-5	Aluminum	1.5E+02 J	2.7E+03	UG/L	MR04-GW06-07C	21/30	200 - 200	2.7E+03	NA	3.6E+03 nc	50 - 200	SMCL	NO	BSL
	7440-38-2	Arsenic	5.8E-01 J	7.9E-01 J	UG/L	MR04-GW02-07C	4/30	1 - 10	7.9E-01	NA	4.5E-02 ca	1.0E+01	MCL	YES	ASL
										NA		5.0E+01	15A NCAC 2L		
	7440-39-3	Barium	1.8E+01	2.7E+02	UG/L	MR04-GW06-07C	15/30	10 - 200	2.7E+02	NA	2.6E+02 nc	2.0E+03	MCL, 15A NCAC 2L	YES	ASL
	7440-41-7	Beryllium	1.6E-01 J	6.5E-01 J	UG/L	MR04-MW05-06A	7/30	5 - 5	6.5E-01	NA	7.3E+00 nc	4.0E+00	MCL	NO	BSL
	7440-43-9	Cadmium	2.1E-01 J	3.6E-01 J	UG/L	MR04-GW09-07C	3/30	1 - 5	3.6E-01	NA	1.8E+00 nc	5.0E+00	MCL	NO	BSL
										NA		1.8E+00	15A NCAC 2L		
	7440-70-2	Calcium	6.7E+02 J	4.4E+04	UG/L	MR04-MW15-06A	17/30	5000 - 5000	4.4E+04	NA	NA	NA		NO	NUT
	7440-47-3	Chromium	1.7E+00 J	4.5E+02	UG/L	MR04-MW12-06A	7/30	2 - 10	4.5E+02	NA	1.1E+01 nc	1.0E+02	MCL	YES	ASL
										NA		5.0E+01	15A NCAC 2L		
	7440-48-4	Cobalt	2.9E-01 J	3.6E+00 J	UG/L	MR04-GW05-07C	14/30	1 - 50	3.6E+00	NA	7.3E+01 nc	NA		NO	BSL
	7440-50-8	Copper	1.2E+00 J	1.7E+00 J	UG/L	MR04-GW09-07C	2/30	5 - 25	1.7E+00	NA	1.5E+02 nc	1.3E+03	MCL	NO	BSL
										NA		1.0E+03	15A NCAC 2L		
	7439-89-6	Iron	1.7E+01 J	3.4E+03	UG/L	MR04-GW06-07C	20/30	100 - 100	3.4E+03	NA	1.1E+03 nc	3.0E+02	2MCL, 15A NCAC 2L	YES	ASL
	7439-92-1	Lead	4.7E-01 J	2.2E+00 J	UG/L	MR04-MW03-06A	5/30	1 - 3	2.2E+00	NA	1.5E+01	1.5E+01	MCL, 15A NCAC 2L	NO	BSL
	7439-95-4	Magnesium	5.2E+02 J	1.3E+04	UG/L	MR04-GW01-07C	20/30	5000 - 5000	1.3E+04	NA	NA	NA		NO	NUT

TABLE 5-9
Occurrence, Distribution and Selection of COPC in Groundwater
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

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
	7439-96-5	Manganese	6.8E-01 J	1.6E+02	UG/L	MR04-MW06-06A	28/30	1 - 15	1.6E+02	NA	8.8E+01 nc	5.0E+01	15A NCAC 2L	YES	ASL
	7439-97-6	Mercury	5.4E-02 J	5.4E-02 J	UG/L	MR04-GW08-07C	1/30	0.2 - 0.2	5.4E-02	NA	1.1E+00 nc	2.0E+00	MCL	NO	BSL
										NA		1.1E+00	15A NCAC 2L		
	7440-02-0	Nickel	5.8E-01 J	1.3E+01	UG/L	MR04-GW02-07C	22/30	1 - 40	1.3E+01	NA	7.3E+01 nc	1.0E+02	15A NCAC 2L	NO	BSL
	7440-09-7	Potassium	5.2E+02 J	1.2E+05	UG/L	MR04-MW12-06A	21/30	5000 - 25000	1.2E+05	NA	NA	NA		NO	NUT
	7782-49-2	Selenium	3.1E-01 J	6.9E+00 J	UG/L	MR04-GW01D-07C	11/30	5 - 5	6.9E+00	NA	1.8E+01 nc	5.0E+01	MCL, 15A NCAC 2L	NO	BSL
	7440-22-4	Silver	7.4E-01 J	4.7E+00 J	UG/L	MR04-MW04-06A	2/30	1 - 10	4.7E+00	NA	1.8E+01 nc	1.0E+02	2MCL	NO	BSL
										NA		1.8E+01	15A NCAC 2L		
	7440-23-5	Sodium	4.1E+03 J	6.9E+04	UG/L	MR04-MW06-06A	28/30	5000 - 5000	6.9E+04	NA	NA	NA		NO	NUT
	7440-28-0	Thallium	5.2E+00 J	5.2E+00 J	UG/L	MR04-MW02-06A	1/30	1 - 10	5.2E+00	NA	2.4E-01 nc	2.0E+00	MCL	YES	ASL
	7440-62-2	Vanadium	8.9E-01 J	1.5E+01 J	UG/L	MR04-MW15-06A	9/30	5 - 50	1.5E+01	NA	3.6E+00 nc	NA			BSL
	7440-66-6	Zinc	6.6E+00 J	5.7E+01 J	UG/L	MR04-MW07-06A	10/24	10 - 20	5.7E+01	NA	1.1E+03 nc	5.0E+03	2MCL	NO	BSL
										NA		1.1E+03	15A NCAC 2L		

[1] Minimum/Maximum detected concentration. Unfiltered results for metals since in general no significant difference between filtered and unfiltered results.
[2] Maximum concentration is used for screening.
[3] Background values not available.
[4] EPA Region 9 PRGs Table, Tap Water, October, 2004, U.S. EPA Region 9 (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens).
PRGs were updated if updated toxicity values were available.
PRG value for cadmium-water used as surrogate for cadmium.
PRG value for hexavalent chromium used for total chromium.
The tap water value of 15 ug/L for lead is the action level provided in the Drinking Water Regulations and Health Advisories.
PRG value for manganese-nonfood used as surrogate for manganese.
PRG value for mercuric chloride used as surrogate for mercury.
[5] Rationale Codes
Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

MCL = Maximum Contaminant Level from EPA's National Primary Drinking Water Standards
2MCL = Secondary MCL
15A NCAC 2L = North Carolina Classifications and Groundwater Quality Standards, Amended April 1, 2005.
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
ca = Carcinogenic
nc = Noncarcinogenic
ca* - carcinogenic (where nc PRG<100 x ca PRG)
sat - soil saturation limit

TABLE 5-10
Risk Ratio Screening for Groundwater, Maximum Detected Concentration
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Analyte	Detection Frequency	Detected Concentration (Qualifier)		Sample	EPA Region 9 Tap Water PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)									
Chloroform	**2 / 30**	**5.1E+00**	**J**	**MR04-MW02-06A**	**1.7E-01**	**1E-06**		**3E-05**	
Semivolatile Organic Compounds (ug/L)									
bis(2-Ethylhexyl)phthalate	**8 / 30**	**8.1E+00**	**J**	**MR04-MW08-06A**	**4.8E+00**	**1E-06**		**2E-06**	
Heptachlor epoxide	**3 / 30**	**2.1E-01**		**MR04-MW13-06A**	**7.4E-03**	**1E-06**		**3E-05**	
Explosives (ug/L)									
4-Nitrotoluene	**7 / 30**	**1.6E+00**		**MR04-MW07-06A**	**6.6E-01**	**1E-06**		**2E-06**	
Metals (ug/L)									
Arsenic	**4 / 30**	**7.9E-01**	**J**	**MR04-GW02-07C**	**4.5E-02**	**1E-06**		**2E-05**	
Barium	15 / 30	2.7E+02		MR04-GW06-07C	2.6E+03	1	0.1		Kidney
Chromium	**7 / 30**	**4.5E+02**		**MR04-MW12-06A**	**1.1E+02**	**1**	**4.1**		**NOAEL**
Iron	**20 / 30**	**3.4E+03**		**MR04-GW06-07C**	**1.1E+04**	**1**	**0.3**		**Blood, Gastrointestinal, Liver**
Manganese	28 / 30	1.6E+02		MR04-MW06-06A	8.8E+02	1	0.2		CNS
Thallium	**1 / 30**	**5.2E+00**	**J**	**MR04-MW02-06A**	**2.4E+00**	**1**	**2.2**		**Liver, Blood, Hair**
Vanadium	9 / 30	1.5E+01	J	MR04-MW15-06A	3.6E+01	1	0.4		Kidney
Cumulative Corresponding Hazard Index[c]							**7.2**		
Cumulative Corresponding Cancer Risk[d]								**8E-05**	

Total Blood HI =	**2.5**
Total Gastrointestinal HI =	0.3
Total Liver HI =	**2.5**
Total Kidney HI =	0.5
Total CNS HI =	0.2
Total Hair HI =	**2.2**

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.
CNS = Central Nervous System
COPC = Constituent of Potential Concern
HI = Hazard Index
J = Estimated Value
ug/L = micrograms per liter
NA = No available/not applicable.
NOAEL = No Observed Adverse Effect Level

Table 5-11
Risk Ratio Screening for Groundwater, 95% UCL Concentration
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Analyte	Detection Frequency	95% UCL		95% UCL Rationale	EPA Region 9 Tap Water PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)									
Chloroform	**2 / 30**	**5.1E+00**	**Max**	**6**	**1.7E-01**	**1.0E-06**		**3E-05**	
Semivolatile Organic Compounds (ug/L)									
bis(2-Ethylhexyl)phthalate	**8 / 30**	**2.7E+00**	**95% KM-t**	**5**	**4.8E+00**	**1.0E-06**		**6E-07**	
Heptachlor epoxide	**3 / 30**	**1.3E-01**	**95% KM-t**	**1, 2**	**7.4E-03**	**1.0E-06**		**2E-05**	
Explosives (ug/L)									
4-Nitrotoluene	**7 / 30**	**3.4E-01**	**95% KM-t**	**1, 3, 4**	**6.6E-01**	**1.0E-06**		**5E-07**	
Metals (ug/L)									
Arsenic	**4 / 30**	**7.7E-01**	**95% KM-t**	**1, 2**	**4.5E-02**	**1.0E-06**		**2E-05**	
Chromium	7 / 30	4.5E+01	95% KM-t	1, 3, 4	1.1E+02	1	0.4		NOAEL
Iron	**20 / 30**	**5.1E+02**	**95% KM-BCA**	**1, 3, 4**	**1.1E+04**	**1**	**0.05**		**Blood, Gastrointestinal, Liver**
Thallium	**1 / 30**	**2.0E+00**	**95% Stud-t**	**2**	**2.4E+00**	**1**	**0.8**		**Liver, Blood, Hair**
Cumulative Corresponding Hazard Index[c]							**1.3**	**7E-05**	
Cumulative Corresponding Cancer Risk[d]									

Total Blood HI =	**0.9**
Total Gastrointestinal HI =	0.05
Total Liver HI =	**0.9**
Total Hair HI =	**0.8**

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
Constituents selected as COPCs are indicated by shading.
ug/L = micrograms per liter
HI = Hazard Index

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration; for duplicate sample results, the maximum value was used in the calculation.
ProUCL, Version 4.0 used to determine distribution of data and calculate 95% UCL, following recommendations
in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: 95% Kaplan-Meier (BCA) UCL (95% KM-BCA); 95% Student-t UCL (95% Stud-t); 95% Chebyshev (mean, std) UCL (95% Cheb-m);
95% Kaplan-Meier (t) UCL (95% KM-t);
UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Anderson-Darling Test indicates data are gamma distributed.
(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.
(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).
(6) Max value used because 95% UCL greater than max.

TABLE 5-12
Summary of COPCs for Phase II Risk Evaluation
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Surface Water
bis(2-Ethylhexyl)phthalate
4,4'-DDD
Dieldrin
Heptachlor
alpha-BHC
beta-BHC
Aluminum
Arsenic
Iron
Manganese
Thallium
Vanadium
Groundwater
Chloroform
bis(2-Ethylhexyl)phthalate
Heptachlor epoxide
4-Nitrotoluene
Arsenic
Barium
Chromium
Iron
Manganese
Thallium
Vanadium
Groundwater - Air
Chloroform

TABLE 5-13
Potentially Complete Human Health Exposure Pathways for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Land Use	Exposure Media	Potentially Exposed Populations	Exposure Route (Human Health)	Pathway Selected for Evaluation	Rationale
Current/Future					
Residential	Surface Water	Recreational	Ingestion and Dermal Contact	Yes	Nearby residents or base workers could contact surface water while recreationally using (i.e., swimming) surface water bodies nearby Knox Park.
Industrial	Groundwater	Residential	Ingestion, Dermal Contact, and Inhalation	No	Groundwater not currently used as potable water supply
Future					
Residential	Groundwater	Resident - Adult and Child	Ingestion, Dermal Contact and Inhalation	Yes	Although unlikely, if site used for future residential development, groundwater could be used as a water supply and residents could ingest, inhale, or have dermal contact with groundwater

TABLE 5-14
Summary of RME Cancer Risks and Hazards Indices for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Current/Future Recreational Adult	Surface Water	Ingestion	1.3E-06			Arsenic	0.018	
		Dermal Contact	1.4E-06				0.046	
		Inhalation	NA				NA	
		Total	2.7E-06			Arsenic	0.065	
Current/Future Recreational Youth	Surface Water	Ingestion	8.7E-07				0.029	
		Dermal Contact	6.5E-07				0.053	
		Inhalation	NA				NA	
		Total	1.5E-06			Arsenic	0.081	
Current/Future Recreational Child	Surface Soil	Ingestion	1.6E-06			Arsenic	0.086	
		Dermal Contact	5.8E-07				0.079	
		Inhalation	NA				NA	
		Total	2.1E-06			Arsenic	0.16	
Future Resident Adult	Groundwater	Ingestion	NA				1.8	
		Dermal Contact	NA				0.35	
		Inhalation	NA				0.0058	
		Total	NA				2.1	
Future Resident Child	Groundwater	Ingestion	NA				8.2	Heptachlor epoxide, Chromium, Thallium
		Dermal Contact	NA				0.93	
		Inhalation	NA				0.030	
		Total	NA				9.2	Heptachlor epoxide, Chromium, Thallium
Future Resident Child/Adult	Groundwater	Ingestion	3.6E-05		Heptachlor epoxide, Arsenic		NA	
		Dermal Contact	9.4E-06			Heptachlor epoxide	NA	
		Inhalation	5.2E-06				NA	
		Total	5.0E-05		Heptachlor epoxide, Arsenic	Bis(2-ethylhexyl)phthalate	NA	
Future Construction Worker Adult	Groundwater	Ingestion	NA				NA	
		Dermal Contact	7.9E-09				0.0080	
		Inhalation	1.8E-07				0.011	
		Total	1.9E-07				0.019	

TABLE 5-15
Summary of CTE Cancer Risks and Hazard Indices for Surface Water and Groundwater
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Future Resident Adult	Groundwater	Ingestion	NA				0.60	
		Dermal Contact	NA				0.084	
		Inhalation	NA				0.00040	
		Total	NA				0.69	
Future Resident Child	Groundwater	Ingestion	NA				2.0	
		Dermal Contact	NA				0.17	
		Inhalation	NA				0.0016	
		Total	NA				2.2	

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Short-tailed shrew	*Blarina brevicauda*	insectivorous mammal
Southeastern shrew	*Sorex longirostris*	insectivorous mammal
Least shrew	*Cryptotis parva*	insectivorous mammal
Virginia opossum	*Didelphis marsupialis*	omnivorous mammal
Keen's myotis	*Myotis keeni*	insectivorous mammal
Eastern pipistrel	*Pipistrellus subflavus*	insectivorous mammal
Silver-haired bat	*Lasionycteris noctivagans*	insectivorous mammal
Red bat	*Lasiurus borealis*	insectivorous mammal
Big brown bat	*Eptesicus fuscus*	insectivorous mammal
Hoary bat	*Lasiurus cinerus*	insectivorous mammal
Seminole bat	*Lasiurus seminolus*	insectivorous mammal
Evening bat	*Nycticeius humeralis*	insectivorous mammal
Eastern yellow bat	*Lasiurus intermedius*	insectivorous mammal
Eastern harvest mouse	*Reithrodontomys humulis*	omnivorous mammal
Cotton mouse	*Peromyscus gossypinus*	omnivorous mammal
Golden mouse	*Peromyscus nuttalli*	herbivorous mammal
Gray fox	*Urocyon cinereoargenteus*	carnivorous mammal
Raccoon	*Procyon lotor*	omnivorous mammal
Long-tailed weasel	*Mustela frenata*	carnivorous mammal
Striped skunk	*Mephitis mephitis*	omnivorous mammal
Black bear	*Ursus americanus*	omnivorous mammal
Beaver	*Castor canadensis*	herbivorous mammal
Mink	*Mustela vison*	omnivorous mammal
Muskrat	*Ondatra zibethicus*	omnivorous mammal
Eastern fox squirrel	*Sciurus niger*	omnivorous mammal
Eastern gray squirrel	*Sciurus carolinensis*	herbivorous mammal
Southern flying squirrel	*Glaucomys volans*	omnivorous mammal
Rice rat	*Oryzomys palustris*	herbivorous mammal
Eastern woodrat	*Neotoma floridana*	herbivorous mammal
Meadow vole	*Microtus pennsylvanicus*	herbivorous mammal
Pine vole	*Pitymys pinetorum*	herbivorous mammal
Eastern cottontail	*Sylvilagus floridanus*	herbivorous mammal
Marsh rabbit	*Sylvilagus palustris*	herbivorous mammal
White-tailed deer	*Odocoileus virginianus*	herbivorous mammal
Acadian flycatcher	*Empidonax virescens*	insectivorous bird
Alder flycatcher	*Empidonax alnorum*	insectivorous bird
American crow	*Corvus brachyrhynchos*	omnivorous bird
American goldfinch	*Carduelis tristis*	herbivorous bird
American kestrel	*Falco sparverius sparverius*	carnivorous bird
American redstart	*Setophaga ruticilla*	insectivorous bird
American robin	*Turdus migratorius*	omnivorous bird
Swallow-tailed kite	*Elanoides forficatus*	omnivorous bird
American woodcock	*Scolopax minor*	insectivorous bird
Appalachian Bewick's wren	*Thryomanes bewickii altus*	insectivorous bird
Bachman's sparrow	*Aimophila aestivalis*	insectivorous bird
Baltimore oriole	*Icterus galbula*	omnivorous bird
Bank swallow	*Riparia riparia*	insectivorous bird
Barn owl	*Tyto alba pratincola*	carnivorous bird

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Barn swallow	*Hirundo rustica*	insectivorous bird
Barred owl	*Strix varia*	carnivorous bird
Bay-breasted warbler	*Dendroica castanea*	insectivorous bird
Belted kingfisher	*Ceryle alcyon*	omnivorous bird
Bicknell's thrush	*Catharus bicknelli*	omnivorous bird
Black-and-white warbler	*Mniotilta varia*	insectivorous bird
Black-billed cuckoo	*Coccyzus erythropthalmus*	insectivorous bird
Black-capped chickadee	*Poecile atricapillus*	omnivorous bird
Black-crowned night-heron	*Nycticorax nycticorax hoactii*	omnivorous bird
Black-headed grosbeak	*Pheucticus melanocephalus*	omnivorous bird
Black-throated blue warbler	*Dendroica caerulescens*	insectivorous bird
Black-throated green warbler	*Dendroica virens*	insectivorous bird
Black vulture	*Coragyps atratus*	carnivorous bird
Blackburnian warbler	*Dendroica fusca*	insectivorous bird
Blackpoll warbler	*Dendroica striata*	omnivorous bird
Blue-gray gnatcatcher	*Polioptila caerulea*	insectivorous bird
Blue grosbeak	*Guiraca caerulea*	omnivorous bird
Blue jay	*Cyanocitta cristata*	omnivorous bird
Blue-winged warbler	*Vermivora pinus*	insectivorous bird
Boat-tailed grackle	*Quiscalus major*	omnivorous bird
Brewer's blackbird	*Euphagus cyanocephalus*	omnivorous bird
Broad-winged hawk	*Buteo platypterus*	carnivorous bird
Brown creeper	*Certhia americana*	omnivorous bird
Brown-headed cowbird	*Molothrus ater*	omnivorous bird
Brown-headed nuthatch	*Sitta pusilla*	omnivorous bird
Brown thrasher	*Toxostoma rufum*	omnivorous bird
Canada warbler	*Wilsonia canadensis*	insectivorous bird
Cape May warbler	*Dendroica tigrina*	insectivorous bird
Carolina chickadee	*Poecile carolinensis*	omnivorous bird
Carolina wren	*Thryothorus ludovicianus*	omnivorous bird
Cattle egret	*Bubulcus ibis*	invertivorous/insectivorous bird
Cedar waxwing	*Bombycilla cedrorum*	omnivorous bird
Cerulean warbler	*Dendroica cerulea*	insectivorous bird
Chestnut-sided warbler	*Dendroica pensylvanica*	omnivorous bird
Chimney swift	*Chaetura pelagica*	insectivorous bird
Chipping sparrow	*Spizella passerina*	omnivorous bird
Chuck-will's-widow	*Caprimulgus carolinensis*	carnivorous bird
Clay-colored sparrow	*Spizella pallida*	omnivorous bird
Cliff swallow	*Petrochelidon pyrrhonota pyrrhonota*	insectivorous bird
Common grackle	*Quiscalus quiscula*	omnivorous bird
Common nighthawk	*Chordeiles minor*	insectivorous bird
Common snipe	*Gallinago gallinago*	insectivorous bird
Common yellowthroat	*Geothlypis trichas brachidactylus*	insectivorous bird
Connecticut warbler	*Oporornis agilis*	insectivorous bird
Cooper's hawk	*Accipiter cooperii*	carnivorous bird
Dark-eyed junco	*Junco hyemalis*	insectivorous bird
Dickcissel	*Spiza americana*	omnivorous bird
Downy woodpecker	*Picoides pubescens medianus*	omnivorous bird

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Eastern bluebird	*Sialia sialis*	omnivorous bird
Eastern kingbird	*Tyrannus tyrannus*	omnivorous bird
Eastern meadowlark	*Sturnella magna*	omnivorous bird
Eastern phoebe	*Sayornis phoebe*	omnivorous/carnivorous bird
Eastern screech-owl	*Otus asio*	carnivorous bird
Eastern towhee	*Pipilo erythrophthalmus*	omnivorous bird
Eastern wood pewee	*Contopus virens*	insectivorous bird
European starling	*Sturnus vulgaris*	omnivorous bird
Field sparrow	*Spizella pusilla*	omnivorous bird
Fish crow	*Corvus ossifragus*	omnivorous bird
Fox sparrow	*Passerella iliaca*	omnivorous bird
Golden-crowned kinglet	*Regulus satrapa*	omnivorous bird
Golden-winged warbler	*Vermivora chrysoptera*	insectivorous bird
Grasshopper sparrow	*Ammodramus savannarum pratensis*	omnivorous bird
Gray catbird	*Dumetella carolinensis*	omnivorous bird
Gray-cheeked thrush	*Catharus minimus*	omnivorous bird
Great blue heron	*Ardea herodias herodias*	omnivorous bird
Great crested flycatcher	*Myiarchus crinitus*	insectivorous bird
Great egret	*Ardea alba egretta*	omnivorous bird
Great horned owl	*Bubo virginianus*	carnivorous bird
Green heron	*Butorides virescens*	omnivorous/carnivorous bird
Hairy woodpecker	*Picoides villosus*	insectivorous bird
Harris' sparrow	*Zonotrichia querula*	omnivorous bird
Henslow's sparrow	*Ammodramus henslowii susurrans*	omnivorous bird
Hermit thrush	*Catharus guttatus*	omnivorous bird
Hooded warbler	*Wilsonia citrina*	insectivorous bird
Horned lark	*Eremophila alpestris*	insectivorous bird
House finch	*Carpodacus mexicanus*	omnivorous bird
House sparrow	*Passer domesticus*	omnivorous bird
House wren	*Troglodytes aedon*	insectivorous bird
Indigo bunting	*Passerina cyanea*	omnivorous bird
Kentucky warbler	*Oporornis formosus*	insectivorous bird
Killdeer	*Charadrius vociferus*	insectivorous bird
King rail	*Rallus elegans*	omnivorous/carnivorous bird
Lark sparrow	*Chondestes grammacus*	insectivorous bird
Least flycatcher	*Empidonax minimus*	insectivorous bird
Least sandpiper	*Calidris minutilla*	invertivorous/insectivorous bird
LeConte's sparrow	*Ammodramus leconteii*	omnivorous bird
Lincoln's sparrow	*Melospiza lincolnii*	omnivorous bird
Little blue heron	*Egretta caerulea caerulea*	omnivorous bird
Loggerhead shrike	*Lanius ludovicianus ludovicianus*	insectivorous bird
Long-eared owl	*Asio otus*	carnivorous bird
Louisiana waterthrush	*Seiurus motacilla*	invertivorous/insectivorous bird
Magnolia warbler	*Dendroica magnolia*	insectivorous bird
Marsh wren	*Cistothorus palustris*	insectivorous bird
Merlin	*Falco columbarius*	carnivorous bird
Migrant loggerhead shrike	*Lanius ludovicianus migrans*	insectivorous bird
Mississippi kite	*Ictinia mississippiensis*	insectivorous bird

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Mourning dove	*Zenaida macroura carolinensis*	herbivorous bird
Mourning warbler	*Oporornis philadelphia*	herbivorous bird
Nashville warbler	*Vermivora ruficapilla*	insectivorous bird
Northern bobwhite	*Colinus virginianus*	herbivorous bird
Northern cardinal	*Cardinalis cardinalis*	omnivorous bird
Northern flicker	*Colaptes auratus*	insectivorous bird
Northern mockingbird	*Mimus polyglottos*	omnivorous bird
Northern parula	*Parula americana*	insectivorous bird
Northern rough-winged swallow	*Stelgidopteryx serripennis*	insectivorous bird
Northern saw-whet owl	*Aegolius acadicus*	carnivorous bird
Northern waterthrush	*Seiurus noveboracensis*	invertivorous/insectivorous bird
Olive-sided flycatcher	*Contopus cooperi*	insectivorous bird
Orange-crowned warbler	*Vermivora celata*	omnivorous bird
Orchard oriole	*Icterus spurius*	omnivorous bird
Ovenbird	*Seiurus aurocapillus*	insectivorous bird
Painted bunting	*Passerina ciris ciris*	herbivorous bird
Palm warbler	*Dendroica palmarum*	omnivorous bird
Peregrine falcon	*Falco peregrinus*	carnivorous bird
Pileated woodpecker	*Dryocopus pileatus*	insectivorous bird
Pine grosbeak	*Pinicola enucleator*	herbivorous bird
Pine siskin	*Carduelis pinus*	herbivorous bird
Pine warbler	*Dendroica pinus*	insectivorous bird
Prairie warbler	*Dendroica discolor*	insectivorous bird
Prothonotary warbler	*Protonotaria citrea*	insectivorous bird
Purple finch	*Carpodacus purpureus*	herbivorous bird
Purple martin	*Progne subis*	insectivorous bird
Red-bellied woodpecker	*Melanerpes carolinus*	omnivorous bird
Red-breasted nuthatch	*Sitta canadensis*	insectivorous bird
Red-cockaded woodpecker	*Picoides borealis borealis*	insectivorous bird
Red crossbill	*Loxia curvirostra*	herbivorous bird
Red-eyed vireo	*Vireo olivaceus*	insectivorous bird
Red-headed woodpecker	*Melanerpes erythrocephalus*	omnivorous bird
Red-shouldered hawk	*Buteo lineatus lineatus*	carnivorous bird
Red-tailed hawk	*Buteo jamaicensis*	carnivorous bird
Red-winged blackbird	*Agelaius phoeniceus*	omnivorous bird
Ring-necked pheasant	*Phasianus colchicus*	omnivorous bird
Rock dove	*Columba livia*	herbivorous bird
Rose-breasted grosbeak	*Pheucticus ludovicianus*	omnivorous bird
Rough-legged hawk	*Buteo lagopus johannis*	carnivorous bird
Ruby-crowned kinglet	*Regulus calendula*	omnivorous bird
Ruby-throated hummingbird	*Archilochus colubris*	insectivorous bird
Ruffed grouse	*Bonasa umbellus*	omnivorous bird
Rusty blackbird	*Euphagus carolinus*	omnivorous/carnivorous bird
Savannah sparrow	*Passerculus sandwichensis*	omnivorous bird
Scarlet tanager	*Piranga olivacea*	omnivorous bird
Scissor-tailed flycatcher	*Tyrannus forficatus*	insectivorous bird
Sedge wren	*Cistothorus platensis*	insectivorous bird
Sharp-shinned hawk	*Accipiter striatus velox*	carnivorous bird

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Short-eared owl	*Asio flammeus*	carnivorous bird
Snowy egret	*Egretta thula*	omnivorous/carnivorous bird
Blue-headed vireo	*Vireo solitarius*	insectivorous bird
Song sparrow	*Melospiza melodia*	omnivorous bird
Summer tanager	*Piranga rubra*	insectivorous bird
Swainson's thrush	*Catharus ustulatus*	omnivorous bird
Swainson's warbler	*Limnothlypis swainsonii*	insectivorous bird
Swamp sparrow	*Melospiza georgiana*	omnivorous bird
Tennessee warbler	*Vermivora peregrina*	omnivorous bird
Tree swallow	*Tachycineta bicolor*	insectivorous bird
Tricolored heron	*Egretta tricolor*	omnivorous bird
Tufted titmouse	*Baeolophus bicolor*	omnivorous bird
Turkey vulture	*Cathartes aura*	carnivorous bird
Upland sandpiper	*Batramia longicauda*	omnivorous bird
Varied thrush	*Ixoreus naevius*	omnivorous bird
Veery	*Catharus fuscescens*	omnivorous bird
Vesper sparrow	*Pooecetes gramineus*	omnivorous bird
Virginia rail	*Rallus limicola*	omnivorous/carnivorous bird
Warbling vireo	*Vireo gilvus gilvus*	insectivorous bird
Whip-poor-will	*Caprimulgus vociferus*	insectivorous bird
White-breasted nuthatch	*Sitta carolinensis*	insectivorous bird
White-crowned sparrow	*Zonotrichia leucophrys*	omnivorous bird
White-eyed vireo	*Vireo griseus*	insectivorous bird
White-throated sparrow	*Zonotrichia albicollis*	omnivorous bird
Wild turkey	*Meleagris gallopavo silvestris*	omnivorous bird
Willow flycatcher	*Empidonax traillii*	insectivorous bird
Wilson's warbler	*Wilsonia pusilla*	insectivorous bird
Winter wren	*Troglodytes troglodytes*	insectivorous bird
Wood duck	*Aix sponsa*	omnivorous bird
Wood thrush	*Hylocichla mustelina*	omnivorous bird
Worm-eating warbler	*Helmitheros vermivorus*	insectivorous bird
Yellow-bellied flycatcher	*Empidonax flaviventris*	insectivorous bird
Yellow-bellied sapsucker	*Sphyrapicus varius*	omnivorous bird
Yellow-billed cuckoo	*Coccyzus americanus*	insectivorous bird
Yellow-breasted chat	*Icteria virens virens*	omnivorous bird
Yellow-crowned night-heron	*Nyctanassa violacea violacea*	omnivorous bird
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	omnivorous bird
Yellow-rumped warbler	*Dendroica coronata coronata*	omnivorous bird
Yellow-throated vireo	*Vireo flavifrons*	insectivorous bird
Yellow-throated warbler	*Dendroica dominica*	insectivorous bird
Yellow warbler	*Dendroica petechia*	insectivorous bird
American eel	*Anguilla rostrata*	carnivorous/piscivorous eel
Banded killifish	*Fundulus diaphanus*	insectivorous fish
Banded pygmy sunfish	*Elassoma zonatum*	insectivorous fish
Banded sunfish	*Ennaecanthus obesus*	insectivorous fish
Black crappie	*Pomoxis nigromaculatus*	carnivorous/piscivorous fish
Blackbanded sunfish	*Enneacanthus chaetodon*	insectivorous/carnivorous fish
Bluespotted sunfish	*Enneacanthus gloriosus*	insectivorous fish

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Bowfin	*Amia calva*	carnivorous/piscivorous fish
Brown bullhead	*Ameiurus nebulosus*	omnivorous/carnivorous fish
Common carp	*Cyprinus carpio*	omnivorous fish
Creek chubsucker	*Erimyzon oblongus*	omnivorous fish
Dollar sunfish	*Lepomis marginatus*	insectivorous fish
Eastern mosquitofish	*Gambusia holbrooki*	insectivorous fish
Eastern mudminnow	*Umbra pygmaea*	insectivorous/omnivorous fish
Eastern silvery minnow	*Hybognathus regius*	omnivorous fish
Flier	*Centrarchus macropterus*	insectivorous fish
Fourspine stickelback	*Apeltes quadracus*	omnivorous fish
Gizzard shad	*Dorosoma cepedianum*	omnivorous fish
Inland silverside	*Menidia beryllina*	insectivorous/omnivorous fish
Largemouth bass	*Micropterus salmoides*	carnivorous/piscivorous fish
Lined topminnow	*Fundulus lineolatus*	insectivorous fish
Longnose gar	*Lepisosteus osseus*	carnivorous/piscivorous fish
Marsh killifish	*Fundulus confluentus*	insectivorous fish
Mud sunfish	*Acantharchus pomotis*	insectivorous fish
Pirate perch	*Aphredoderus sayanus sayanus*	insectivorous/carnivorous fish
Pumpkinseed	*Lepomis gibbosus*	insectivorous fish
Rainwater killifish	*Lucania parva*	insectivorous fish
Redbreast sunfish	*Lepomis auritus*	insectivorous fish
Redfin pickerel	*Esox americanus americanus*	carnivorous/piscivorous fish
Satinfin shiner	*Cyprinella analostana*	omnivorous fish
Sawcheek darter	*Etheostoma serrifer*	insectivorous fish
Sheepshead minnow	*Cyprinodon variegatus*	insectivorous fish
Shorthead redhorse	*Moxostoma macrolepidotum*	omnivorous fish
Swallowtail shiner	*Notropis procne*	insectivorous/omnivorous fish
Swamp darter	*Etheostoma fusiforme*	insectivorous fish
Swampfish	*Chologaster cornuta*	insectivorous/omnivorous fish
Tadpole madtom	*Noturus gyrinus*	insectivorous fish
Tessellated darter	*Etheostoma olmstedi*	insectivorous fish
Warmouth	*Lepomis gulosus*	carnivorous/omnivorous fish
White catfish	*Ameiurus catus*	carnivorous/omnivorous fish
White perch	*Morone americana*	carnivorous/omnivorous fish
Yellow bullhead	*Ameiurus natalis*	omnivorous/carnivorous fish
Barking treefrog	*Hyla gratiosa*	insectivorous frog
Brimley's chorus frog	*Pseudacris brimleyi*	insectivorous frog
Bullfrog	*Rana catesbeiana*	insectivorous/carnivorous frog
Carpenter frog	*Rana virgatipes*	insectivorous frog
Coastal Plain cricket frog	*Acris gryllus gryllus*	insectivorous frog
Cope's gray treefrog	*Hyla chrysoscelis*	insectivorous frog
Eastern narrow-mouthed toad	*Gastrophryne carolinensis*	insectivorous frog
Eastern spadefoot	*Scaphiopus holbrooki*	insectivorous frog
Fowler's toad	*Bufo fowleri*	insectivorous frog
Gray treefrog	*Hyla versicolor*	insectivorous frog
Green frog	*Rana clamitans melanota*	insectivorous frog
Green treefrog	*Hyla cinerea*	insectivorous frog
Little grass frog	*Pseudacris ocularis*	insectivorous frog

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Northern spring peeper	*Pseudacris crucifer crucifer*	insectivorous frog
Oak toad	*Bufo quercicus*	insectivorous frog
Pickerel frog	*Rana palustris*	insectivorous frog
Pine woods treefrog	*Hyla femoralis*	insectivorous frog
Southern leopard frog	*Rana sphenocephala*	insectivorous frog
Southern toad	*Bufo terrestris*	insectivorous frog
Squirrel treefrog	*Hyla squirrela*	insectivorous frog
Wood frog	*Rana sylvatica*	insectivorous frog
Atlantic coast slimy salamander	*Plethodon chlorobryonis*	insectivorous salamander
Dwarf waterdog	*Necturus punctatus*	insectivorous/carnivorous salamander
Eastern lesser siren	*Siren intermedia intermedia*	insectivorous/carnivorous salamander
Eastern mud salamander	*Pseudotriton montanus montanus*	insectivorous salamander
Eastern tiger salamander	*Ambystoma tigrinum tigrinum*	insectivorous/carnivorous salamander
Dwarf salamander	*Eurycea quadridigitata*	insectivorous salamander
Greater siren	*Siren lacertina*	omnivorous/carnivorous salamander
Mabee's salamander	*Ambystoma mabeei*	insectivorous salamander
Many-lined salamander	*Stereochilus marginatus*	insectivorous salamander
Marbled salamander	*Ambystoma opacum*	insectivorous salamander
Red-spotted newt	*Notophthalmus viridescens viridescens*	insectivorous salamander
Southern dusky salamander	*Desmognathus auriculatus*	insectivorous salamander
Two-toed amphiuma	*Amphiuma means*	insectivorous/piscivorous salamander
American alligator	*Alligator mississippiensis*	carnivorous lizard
Broad-headed skink	*Eumeces laticeps*	insectivorous lizard
Eastern glass-lizard	*Ophisaurus ventralis*	insectivorous lizard
Five-lined skink	*Eumeces fasciatus*	insectivorous lizard
Little brown skink	*Scincella lateralis*	insectivorous lizard
Northern fence-lizard	*Sceloporus undulatus hyacinthinus*	insectivorous lizard
Eastern six-lined racerunner	*Cnemidophorous sexlineatus sexlineatus*	insectivorous lizard
Southeastern five-lined skink	*Eumeces inexpectatus*	insectivorous lizard
Green anole	*Anolis carolinensis*	insectivorous lizard
Black rat snake	*Elaphe obsoleta obsoleta*	carnivorous snake
Brown water snake	*Nerodia taxispilota*	piscivorous snake
Canebrake rattlesnake	*Crotalus horridus*	carnivorous snake
Common rainbow snake	*Farancia erytrogramma erytrogramma*	carnivorous snake
Corn snake	*Elaphe guttata*	carnivorous snake
Eastern cottonmouth	*Agkistrodon piscivorus piscivorus*	piscivorous/carnivorous snake
Eastern garter snake	*Thamnophis sirtalis sirtalis*	insectivorous/carnivorous snake
Eastern hognose snake	*Heterodon platirhinos*	carnivorous snake
Eastern kingsnake	*Lampropeltis getula getula*	carnivorous snake
Eastern mud snake	*Farancia abacura abacura*	carnivorous snake
Eastern ribbon snake	*Thamnophis sauritus sauritus*	insectivorous/carnivorous snake
Eastern worm snake	*Carphophis amoenus amoenus*	insectivorous snake
Glossy crayfish snake	*Regina rigida rigida*	insectivorous/carnivorous snake
Mole kingsnake	*Lampropeltis calligaster rhombomaculata*	carnivorous snake
Northern black racer	*Coluber constrictor constrictor*	carnivorous snake
Northern brown snake	*Storeria dekayi dekayi*	insectivorous snake
Northern copperhead	*Agkistrodon contortrix mokasen*	carnivorous snake
Northern pine snake	*Pituophis melanoleucus melanoleucus*	carnivorous snake

TABLE 6-1
List of Terrestrial and Aquatic Species with Habitat Requirements/Preferences Overlapping the Existing Characteristics of Site UXO-04
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Common Name	Scientific Name	Feeding Guild
Northern red-bellied snake	*Storeria occipitomaculata occipitomaculata*	insectivorous snake
Northern scarlet snake	*Cemophora coccinea copei*	carnivorous snake
Northern water snake	*Nerodia sipedon sipedon*	piscivorous snake
Queen snake	*Regina septemvittata*	piscivorous snake
Red-bellied water snake	*Nerodia erythrogaster erythrogaster*	piscivorous snake
Rough earth snake	*Virginia striatula*	insectivorous snake
Rough green snake	*Opheodrys aestivus aestivus*	insectivorous/carnivorous snake
Scarlet kingsnake	*Lampropeltis triangulum elapsoides*	carnivorous snake
Southeastern crowned snake	*Tantilla coronata*	insectivorous snake
Southern ring-necked snake	*Diadophis punctatus punctatus*	insectivorous snake
Carolina pygmy rattlesnake	*Sitrus miliarus*	carnivorous snake
Pine woods snake	*Rhadinaea flavilata*	insectivorous/carnivorous snake
Black swamp snake	*Seminatrix pygaea*	insectivorous/carnivorous snake
Coastal Plain cooter	*Pseudemys concinna floridana*	omnivorous turtle
Eastern box turtle	*Terrapene carolina carolina*	omnivorous turtle
Eastern mud turtle	*Kinosternon subrubrum subrubrum*	insectivorous/carnivorous turtle
Eastern painted turtle	*Chrysemys picta picta*	omnivorous turtle
Eastern river cooter	*Pseudemys concinna concinna*	omnivorous turtle
Eastern snapping turtle	*Chelydra serpentina serpentina*	carnivorous/piscivorous turtle
Northern diamond-backed terrapin	*Malaclemys terrapin terrapin*	insectivorous/carnivorous turtle
Northern red-bellied cooter	*Pseudemys rubriventris*	omnivorous turtle
Spotted turtle	*Clemmys guttata*	omnivorous turtle
Eastern musk turtle (=stinkpot)	*Sternotherus odoratus*	insectivorous/carnivorous turtle
Yellow-bellied slider	*Trachemys scripta scripta*	omnivorous turtle

TABLE 6-2
Threatened and Endangered Species List for Onslow County, North Carolina
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Scientific Name	Common Name	Federal Status
	Vertebrates	
Chelonia mydas	Green sea turtle	T
Caretta caretta	Loggerhead sea turtle	T
Dermochelys coriacea	Leatherback sea turtle	E
Trichechus manatus	West Indian Manatee	E
Alligator mississippiensis	American alligator	T(S/A)
Charadrius melodus	Piping Plover	T
Haliaetus leucocephalus	Bald eagle	T
Puma concolor couguar	Eastern cougar	E
Picoides borealis	Red-cockaded Woodpecker	E
	Vascular Plants	
Thalictrum cooleyi	Cooley's meadowrue	E
Carex lutea	Golden sedge	E
Lysimachia asperulaefolia	Rough-leaved loosestrife	E
Amaranthus pumilus	Seabeach amaranth	T

E = Endangered - A taxon in danger of extinction throughout all or a significant portion of its range.
T = Threatened - A taxon likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
T(S/A) - Threatened due to similarity of appearance: a species that is threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened.

TABLE 6-3
Preliminary Assessment Endpoints, Measurement Endpoints, and Risk Hypotheses
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Assessment Endpoint	Guild (Food Web)	Exposure Area	Representative Receptor Species	Exposure Routes	Measurement Endpoints		Testable Hypotheses (Risk Questions)
					Measures of Exposure	Measures of Effects	
Survival, Growth, and Reproduction of Marine Benthic Macroinvertebrate Community	Benthic Invertebrate	Unnamed tributary and Northeast Creek	Various species	Direct exposure, ingestion	Measured concentrations of contaminants in surface sediment	Comparison of concentrations of contaminants in surface sediments to sediment SVs	Are the levels of contaminants in sediments from the Site greater than the sediment SVs for the survival, growth or reproduction of benthic invertebrate communities?
Survival, Growth, and Reproduction of Marine Fish Community	Fish	Unnamed tributary and Northeast Creek	Various species	Direct exposure, ingestion	Measured concentrations of contaminants in surface water and surface sediment	Comparison of concentrations of contaminants in surface water and sediment to medium-specific SVs	Are the concentrations of contaminants in surface water and sediment from the Site greater than the medium-specific SVs for the survival, growth, and reproduction of fish communities?
Survival, Growth, and Reproduction of Piscivorous Mammal Populations	Piscivorous Mammal (Aquatic)	Unnamed tributary and Northeast Creek	Mink	Ingestion	Measured concentrations of contaminants in sediment Estimated concentrations of contaminants in fish	Comparison of exposure doses to published values for survival, growth and reproduction (SVs)	Does the dose of contaminants received by piscivorous mammals from consumption of the tissues of food items and from other media at the Site (e.g., sediment) exceed the ingestion-based SVs for survival or reproduction of mammal populations?
Survival, Growth, and Reproduction of Piscivorous Bird Populations	Piscivorous Bird (Aquatic)	Unnamed tributary and Northeast Creek	Great Blue Heron	Ingestion	Measured concentrations of contaminants in sediment Estimated concentrations of contaminants in fish	Comparison of exposure doses to published values for survival, growth and reproduction (SVs)	Does the dose of contaminants received by piscivorous birds from consumption of the tissues of food items and from other media at the Site (e.g., sediment) exceed the ingestion-based SVs for survival or reproduction of bird populations?

Notes:
SV = Screening Value

TABLE 6-4
Bioaccumulative Chemicals List and Log K_{ow} Values for Relevant Chemicals
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Log K_{ow} Range	Selected log K_{ow}	Reference
Inorganics			
Arsenic	-- - --	--	--
Cadmium	-- - --	--	--
Chromium	-- - --	--	--
Copper	-- - --	--	--
Lead	-- - --	--	--
Mercury	-- - --	--	--
Nickel	-- - --	--	--
Selenium	-- - --	--	--
Silver	-- - --	--	--
Zinc	-- - --	--	--
Pesticides/PCBs			
4,4'-DDD	5.90 - 6.65	6.10	USEPA, 1995a
4,4'-DDE	5.63 - 6.96	6.76	USEPA, 1995a
4,4'-DDT	5.56 - 7.01	6.53	USEPA, 1995a
Aldrin	5.11 - 7.50	6.50	USEPA, 1995a
alpha-BHC	3.75 - 3.81	3.80	USEPA, 1995a
alpha-Chlordane	5.80 - 6.41	6.32	USEPA, 1995a
Aroclor-1016	-- - --	5.60	Sample et al., 1996
Aroclor-1221	-- - --	4.70	Jones et al., 1997
Aroclor-1232	-- - --	5.10	Jones et al., 1997
Aroclor-1242	-- - --	5.60	Jones et al., 1997
Aroclor-1248	-- - --	6.20	Jones et al., 1997
Aroclor-1254	-- - --	6.50	Jones et al., 1997
Aroclor-1260	-- - --	6.80	Jones et al., 1997
beta-BHC	3.75 - 3.84	3.81	USEPA, 1995a
delta-BHC	-- - --	4.10	USEPA, 1996a
Dieldrin	3.63 - 6.20	5.37	USEPA, 1995a
Endosulfan I	3.55 - 3.85	3.83	USEPA, 1995a
Endosulfan II	3.62 - 4.52	4.52	USEPA, 1995a
Endrin	2.92 - 5.20	5.06	USEPA, 1995a
gamma-BHC (Lindane)	3.61 - 3.90	3.73	USEPA, 1995a
gamma-Chlordane	5.80 - 6.41	6.32	USEPA, 1995a
Heptachlor	4.93 - 6.26	6.26	USEPA, 1995a
Heptachlor epoxide	3.50 - 5.40	5.00	USEPA, 1995a
Methoxychlor	4.20 - 5.60	5.08	USEPA, 1995a
Toxaphene	4.33 - 5.56	5.50	USEPA, 1995a
Volatile and Semivolatile Organics			
1,1,2,2-Tetrachloroethane *	2.31 - 2.64	2.39	USEPA, 1995a
1,2,4-Trichlorobenzene	3.89 - 4.23	4.01	USEPA, 1995a
1,2-Dichlorobenzene	3.20 - 3.61	3.43	USEPA, 1995a
1,3-Dichlorobenzene	-- - --	3.50	USEPA, 1996a
1,4-Dichlorobenzene	3.26 - 3.62	3.42	USEPA, 1995a
4-Bromophenyl-phenylether	4.89 - 5.24	5.00	USEPA, 1995a
4-Chlorophenyl-phenylether	4.08 - 5.09	4.95	USEPA, 1995a
Acenaphthene	3.77 - 4.49	3.92	USEPA, 1995a
Acenaphthylene	-- - --	4.10	USEPA, 1996a

TABLE 6-4
Bioaccumulative Chemicals List and Log K_{ow} Values for Relevant Chemicals
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Log K_{ow} Range	Selected log K_{ow}	Reference
Anthracene	4.44 - 4.80	4.55	USEPA, 1995a
Benzo(a)anthracene	5.61 - 5.79	5.70	USEPA, 1995a
Benzo(a)pyrene	5.98 - 6.34	6.11	USEPA, 1995a
Benzo(b)fluoranthene	5.79 - 6.40	6.20	USEPA, 1995a
Benzo(g,h,i)perylene	6.58 - 7.05	6.70	USEPA, 1995a
Benzo(k)fluoranthene	6.12 - 6.27	6.20	USEPA, 1995a
Chrysene	5.41 - 5.79	5.70	USEPA, 1995a
Dibenz(a,h)anthracene	6.50 - 6.88	6.69	USEPA, 1995a
Fluoranthene	4.84 - 5.39	5.12	USEPA, 1995a
Fluorene	4.04 - 4.40	4.21	USEPA, 1995a
Hexachlorobenzene	5.23 - 6.92	5.89	USEPA, 1995a
Hexachlorobutadiene	4.74 - 5.16	4.81	USEPA, 1995a
Hexachlorocyclopentadiene	5.05 - 5.51	5.39	USEPA, 1995a
Hexachloroethane	3.82 - 4.14	4.00	USEPA, 1995a
Indeno(1,2,3-cd)pyrene	6.58 - 6.72	6.65	USEPA, 1995a
Pentachlorophenol	5.01 - 5.24	5.09	USEPA, 1995a
Phenanthrene	4.37 - 4.57	4.55	USEPA, 1995a
Pyrene	4.76 - 5.52	5.11	USEPA, 1995a

* 1,1,1,2 and 1,1,2,2 tetrachloroethane are both considered bioaccumulative

TABLE 6-5
Sediment Bioaccumulation Factors For Fish - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Sediment-Fish BAF (dry weight)	
	Value	Reference
Inorganics		
Arsenic	0.126	Pascoe et al., 1996
Cadmium	0.164	Pascoe et al., 1996
Chromium	0.038	Krantzberg and Boyd, 1992
Copper	0.100	Krantzberg and Boyd, 1992
Lead	0.070	Krantzberg and Boyd, 1992
Mercury	4.58	Cope et al., 1990
Nickel	1.00	Assumed
Selenium	1.00	Assumed
Silver	1.00	Assumed
Zinc	0.147	Pascoe et al., 1996
Pesticides/PCBs		
4,4'-DDD	2.25	Oliver and Niimi, 1988
4,4'-DDE	26.2	Oliver and Niimi, 1988
4,4'-DDT	8.80	Oliver and Niimi, 1988
Aldrin	1.00	Assumed
alpha-BHC	1.00	Assumed
alpha-Chlordane	1.00	Assumed
Aroclor-1016	12.9	Oliver and Niimi, 1988
Aroclor-1221	12.9	Oliver and Niimi, 1988
Aroclor-1232	12.9	Oliver and Niimi, 1988
Aroclor-1242	12.9	Oliver and Niimi, 1988
Aroclor-1248	12.9	Oliver and Niimi, 1988
Aroclor-1254	12.9	Oliver and Niimi, 1988
Aroclor-1260	12.9	Oliver and Niimi, 1988
beta-BHC	1.00	Assumed
delta-BHC	1.00	Assumed
Dieldrin	1.00	Assumed
Endosulfan I	1.00	Assumed
Endosulfan II	1.00	Assumed
Endrin	1.00	Assumed
gamma-BHC (Lindane)	6.20	Oliver and Niimi, 1988
gamma-Chlordane	1.00	Assumed
Heptachlor	1.00	Assumed
Heptachlor epoxide	1.00	Assumed
Methoxychlor	1.00	Assumed
Toxaphene	1.00	Assumed
Volatile and Semivolatile Organics		
1,1,2,2-Tetrachloroethane	1.00	Assumed
1,2,4-Trichlorobenzene	0.074	Parkerton et al., 1993
1,2-Dichlorobenzene	0.085	Parkerton et al., 1993
1,3-Dichlorobenzene	0.085	Parkerton et al., 1993
1,4-Dichlorobenzene	0.085	Parkerton et al., 1993
4-Bromophenyl-phenylether	1.00	Assumed
4-Chlorophenyl-phenylether	1.00	Assumed
Acenaphthene	1.00	Assumed

TABLE 6-5
Sediment Bioaccumulation Factors For Fish - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Sediment-Fish BAF (dry weight)	
	Value	Reference
Acenaphthylene	1.00	Assumed
Anthracene	1.00	Assumed
Benzo(a)anthracene	1.00	Assumed
Benzo(a)pyrene	1.00	Assumed
Benzo(b)fluoranthene	1.00	Assumed
Benzo(g,h,i)perylene	1.00	Assumed
Benzo(k)fluoranthene	1.00	Assumed
Chrysene	1.00	Assumed
Dibenz(a,h)anthracene	1.00	Assumed
Fluoranthene	1.00	Assumed
Fluorene	1.00	Assumed
Hexachlorobenzene	0.940	Oliver and Niimi, 1988
Hexachlorobutadiene	0.384	Parkerton et al., 1993
Hexachlorocyclopentadiene	1.00	Assumed
Hexachloroethane	1.00	Assumed
Indeno(1,2,3-cd)pyrene	1.00	Assumed
Pentachlorophenol	1.00	Assumed
Phenanthrene	1.00	Assumed
Pyrene	1.00	Assumed

TABLE 6-6
Exposure Parameters for Upper Trophic Level Ecological Receptors - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Receptor	Body Weight (kg)		Food Ingestion Rate (kg/day - dry)		Dietary Composition (percent)				Sediment Ingestion (percent)	
	Value	Reference	Value	Reference	Fish	Aquatic Plants	Benthic Invertebrates	Reference	Value	Reference
Birds										
Great blue heron	2.10	Butler, 1992	0.1356	allometric equation (Nagy, 2001 - all birds)	100	0	0	USEPA, 1993a; Quinney and Smith, 1980	0	Sample and Suter, 1994
Mammals										
Mink	0.726	Silva and Downing, 1995	0.0349	USEPA, 1993a	100	0	0	USEPA, 1993a	0	Sample and Suter, 1994

TABLE 6-7
Uncertainty Factors Applied to Ingestion-Based Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Convert From	Convert To	Uncertainty Factor
Chronic NOAEL	Chronic NOAEL	1
Chronic LOAEL	Chronic NOAEL	5
Subchronic NOAEL	Chronic NOAEL	10
Subchronic LOAEL	Chronic NOAEL	20
Acute NOAEL	Chronic NOAEL	30
Acute LOAEL	Chronic NOAEL	50
LD50	Chronic NOAEL	100

Uncertainty factors from Wentsel et al. (1996)
Durations are defined as follows (USEPA, 1999; Sample et al., 1996):
- Acute: <14 days
- Subchronic: 14 - 90 days
- Chronic: >90 days or during critical life stage

TABLE 6-8
Ingestion Screening Values for Mammals
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Inorganics								
Arsenic	dog	10.0	2 years	oral in diet	systemic	6.00	1.20	ATSDR, 1993a
Cadmium	dog	10.0	3 months	oral in diet	reproduction	3.75	0.75	ATSDR, 1999a
Chromium	rat	0.35	1 year	oral in water	body weight/intake	16.4	3.28	Sample et al., 1996
Copper	mink	1.00	357 days	oral in diet	reproduction	15.1	11.7	Sample et al., 1996
Lead	rat	0.35	3 generations	oral in diet	reproduction	80.0	8.00	Sample et al., 1996
Mercury	mink	1.00	93 days	oral in diet	survival/weight loss	0.25	0.15	Sample et al., 1996
Nickel	dog	10.0	2 years	oral in diet	systemic	62.5	25.0	ATSDR, 1997a
Selenium	rat	0.35	1 year	oral in water	reproduction	0.33	0.20	Sample et al., 1996
Silver	rat	0.35	2 weeks	oral in water	survival	45.3	9.06	ATSDR, 1990
Zinc	mink	1.00	25 weeks	oral	reproduction	104	20.8	ATSDR, 1994a
Pesticides/PCBs								
4,4'-DDD	dog	10.0	2 generations	oral in diet	reproduction	5.00	1.00	ATSDR, 1994b
4,4'-DDE	dog	10.0	2 generations	oral in diet	reproduction	5.00	1.00	ATSDR, 1994b
4,4'-DDT	dog	10.0	2 generations	oral in diet	reproduction	5.00	1.00	ATSDR, 1994b
Aldrin	rat	0.35	3 generations	oral in diet	reproduction	1.00	0.20	Sample et al., 1996
alpha-BHC	rat	0.35	4 generations	oral in diet	reproduction	3.20	1.60	Sample et al., 1996
alpha-Chlordane	mouse	0.03	6 generations	oral in diet	reproduction	9.16	4.58	Sample et al., 1996
Aroclor-1016	mink	1.00	18 months	oral in diet	reproduction	3.43	1.37	Sample et al., 1996
Aroclor-1221	mink	1.00	7 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
Aroclor-1232	mink	1.00	7 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
Aroclor-1242	mink	1.00	7 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
Aroclor-1248	mink	1.00	4.5 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
Aroclor-1254	mink	1.00	4.5 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
Aroclor-1260	mink	1.00	4.5 months	oral in diet	reproduction	0.69	0.14	Sample et al., 1996
beta-BHC	rat	0.35	4 generations	oral in diet	reproduction	3.20	1.60	Sample et al., 1996
delta-BHC	rat	0.35	4 generations	oral in diet	reproduction	3.20	1.60	Sample et al., 1996
Dieldrin	dog	10	15.7 months	oral in diet	systemic	0.14	0.03	ATSDR, 1993b
Endosulfan I	dog	10.0	2 years	oral in diet	systemic	5.00	1.00	ATSDR, 1993c
Endosulfan II	dog	10.0	2 years	oral in diet	systemic	5.00	1.00	ATSDR, 1993c

NA - Not Available

TABLE 6-8
Ingestion Screening Values for Mammals
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Endrin	mouse	0.03	120 days	oral in diet	reproduction	0.92	0.18	Sample et al., 1996
gamma-BHC (Lindane)	rat	0.35	3 generations	oral in diet	reproduction	40.0	8.00	Sample et al., 1996
gamma-Chlordane	mouse	0.03	6 generations	oral in diet	reproduction	9.16	4.58	Sample et al., 1996
Heptachlor	mink	1.00	181 days	oral in diet	reproduction	1.00	0.20	Sample et al., 1996
Heptachlor epoxide	mink	1.00	181 days	oral in diet	reproduction	1.00	0.20	Sample et al., 1996
Methoxychlor	rat	0.35	11 months	oral in diet	reproduction	8.00	4.00	Sample et al., 1996
Toxaphene	rat	0.35	3 generations	oral in diet	reproduction	40.0	8.00	Sample et al., 1996
Volatile and Semivolatile Organics								
1,1,2,2-Tetrachloroethane	rat	0.35	78 weeks	oral (gavage)	reproduction	380	76.0	ATSDR, 1996a
1,2,4-Trichlorobenzene	rat	0.35	3 generations	oral in water	reproduction	106	53	Coulston and Kolbye, 1994
1,2-Dichlorobenzene	rat	0.35	chronic	oral (gavage)	liver/kidney	429	85.7	Coulston and Kolbye, 1994
1,3-Dichlorobenzene	rat	0.35	chronic	oral (gavage)	liver/kidney	429	85.7	Coulston and Kolbye, 1994
1,4-Dichlorobenzene	rat	0.35	GD 6-15	oral (gavage)	developmental	500	250	ATSDR, 1998
4-Bromophenyl-phenylether	--	--	--	--	--	NA	NA	--
4-Chlorophenyl-phenylether	--	--	--	--	--	NA	NA	--
Acenaphthene	mouse	0.03	13 weeks	oral (gavage)	reproduction	700	350	ATSDR, 1995
Acenaphthylene	mouse	0.03	13 weeks	oral (gavage)	reproduction	700	350	ATSDR, 1995
Anthracene	mouse	0.03	13 weeks	oral (gavage)	reproduction	5,000	1,000	ATSDR, 1995
Benzo(a)anthracene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Benzo(a)pyrene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Benzo(b)fluoranthene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Benzo(g,h,i)perylene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Benzo(k)fluoranthene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Chrysene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Dibenz(a,h)anthracene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Fluoranthene	mouse	0.03	13 weeks	oral (gavage)	reproduction	2,500	500	ATSDR, 1995
Fluorene	mouse	0.03	13 weeks	oral (gavage)	reproduction	2,500	500	ATSDR, 1995
Hexachlorobenzene	dog	10.0	1 year	oral	systemic	12.0	1.20	ATSDR, 1996b
Hexachlorobutadiene	rat	0.35	GD 1-22; LD 1-21	oral in diet	developmental	20.0	2.00	ATSDR, 1994c
Hexachlorocyclopentadiene	mouse	0.03	GD 6-15	oral (gavage)	developmental	375	75.0	ATSDR, 1999b

NA - Not Available

TABLE 6-8
Ingestion Screening Values for Mammals
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Hexachloroethane	rat	0.35	GD 6-16	oral (gavage)	reproduction	500	100	ATSDR, 1997b
Indeno(1,2,3-cd)pyrene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996
Pentachlorophenol	rat	0.35	2 generations	oral in diet	developmental	25.0	5.00	ATSDR, 1994d
Phenanthrene	mouse	0.03	13 weeks	oral (gavage)	reproduction	2,500	500	ATSDR, 1995
Pyrene	mouse	0.03	GD 7-16	oral (gavage)	reproduction	10.0	2.00	Sample et al., 1996

NA - Not Available

TABLE 6-9
Ingestion Screening Values for Birds
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Inorganics								
Arsenic	mallard	1.00	128 days	oral in diet	survival	12.8	5.14	Sample et al., 1996
Cadmium	mallard	1.15	90 days	oral in diet	reproduction	20.0	1.45	Sample et al., 1996
Chromium	American black duck	1.25	10 months	oral in diet	reproduction	5.00	1.00	Sample et al., 1996
Copper	chicken (chicks)	0.534	10 weeks	oral in diet	growth/survival	61.7	47.0	Sample et al., 1996
Lead	American kestrel	0.13	7 months	oral in diet	reproduction	19.3	3.85	Sample et al., 1996
Mercury	mallard	1.00	3 generations	oral in diet	reproduction	0.078	0.026	USEPA, 1997b
Nickel	mallard	0.782	90 days	oral in diet	growth/survival	107	77.4	Sample et al., 1996
Selenium	black-crowned night-heron	0.88	94 days	oral in diet	reproduction	9.00	1.80	Sample et al., 1996
Silver	mallard	1.10	14 days	oral in diet	survival	178	35.6	USEPA, 1999
Zinc	chicken	1.94	44 weeks	oral in diet	reproduction	131	14.5	Sample et al., 1996
Pesticides/PCBs								
4,4'-DDD	bald eagle	4.74	112 days	oral in diet	survival	3.00	0.30	USEPA, 1995b
4,4'-DDE	bald eagle	4.74	112 days	oral in diet	survival	3.00	0.30	USEPA, 1995b
4,4'-DDT	bald eagle	4.74	112 days	oral in diet	survival	3.00	0.30	USEPA, 1995b
Aldrin	mallard	1.00	5 days	oral in diet	survival	0.78	0.16	Hill et al., 1975
alpha-BHC	Japanese quail	0.15	90 days	oral in diet	reproduction	2.25	0.56	Sample et al., 1996
alpha-Chlordane	mallard	1.00	not specified	oral in diet	reproduction	4.00	0.80	Wiemeyer, 1996
Aroclor-1016	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1221	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1232	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1242	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1248	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1254	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
Aroclor-1260	mallard	1.00	1 month	oral in diet	reproduction	7.50	1.50	USEPA, 1995b
beta-BHC	Japanese quail	0.15	90 days	oral in diet	reproduction	2.25	0.56	Sample et al., 1996
delta-BHC	Japanese quail	0.15	90 days	oral in diet	reproduction	2.25	0.56	Sample et al., 1996
Dieldrin	barn owl	0.466	2 years	oral in diet	reproduction	0.39	0.08	Sample et al., 1996
Endosulfan I	gray partridge	0.40	4 weeks	oral in diet	reproduction	50.0	10.0	Sample et al., 1996

NA - Not Available

TABLE 6-9
Ingestion Screening Values for Birds
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Endosulfan II	gray partridge	0.40	4 weeks	oral in diet	reproduction	50.0	10.0	Sample et al., 1996
Endrin	mallard	1.15	>200 days	oral in diet	reproduction	1.50	0.30	Sample et al., 1996
gamma-BHC (Lindane)	mallard	1.00	8 weeks	oral (gavage)	reproduction	20.0	4.00	Sample et al., 1996
gamma-Chlordane	mallard	1.00	not specified	oral in diet	reproduction	4.00	0.80	Wiemeyer, 1996
Heptachlor	mallard	1.00	5 days	oral in diet	survival	2.40	0.48	Hill et al., 1975
Heptachlor epoxide	mallard	1.00	5 days	oral in diet	survival	2.40	0.48	Hill et al., 1975
Methoxychlor	chicken	1.50	16 weeks	oral in diet	reproduction	1,775	355	Wiemeyer, 1996
Toxaphene	American black duck	1.00	2 seasons	oral in diet	reproduction	5.00	1.00	Wiemeyer, 1996
Volatile and Semivolatile Organics								
1,1,2,2-Tetrachloroethane	--	--	--	--	--	NA	NA	--
1,2,4-Trichlorobenzene	northern bobwhite	0.19	14 days	oral	survival	161	32.2	TERRETOX, 2002
1,2-Dichlorobenzene	northern bobwhite	0.19	14 days	oral	survival	161	32.2	TERRETOX, 2002
1,3-Dichlorobenzene	northern bobwhite	0.19	14 days	oral	survival	161	32.2	TERRETOX, 2002
1,4-Dichlorobenzene	northern bobwhite	0.19	14 days	oral	survival	161	32.2	TERRETOX, 2002
4-Bromophenyl-phenylether	--	--	--	--	--	NA	NA	--
4-Chlorophenyl-phenylether	--	--	--	--	--	NA	NA	--
Acenaphthene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Acenaphthylene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Anthracene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Benzo(a)anthracene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Benzo(a)pyrene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Benzo(b)fluoranthene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Benzo(g,h,i)perylene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Benzo(k)fluoranthene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Chrysene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Dibenz(a,h)anthracene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Fluoranthene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Fluorene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Hexachlorobenzene	Japanese quail	0.15	90 days	oral in diet	reproduction	0.565	0.113	Coulston and Kolbye, 1994; TERRETOX, 2002

NA - Not Available

TABLE 6-9
Ingestion Screening Values for Birds
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Test Organism	Body Weight (kg)	Duration	Exposure Route	Effect/Endpoint	LOAEL (mg/kg/d)	NOAEL (mg/kg/d)	Reference
Hexachlorobutadiene	Japanese quail	0.15	90 days	oral in diet	reproduction	17.0	3.39	Coulston and Kolbye, 1994; TERRETOX, 2002
Hexachlorocyclopentadiene	--	--	--	--	--	NA	NA	--
Hexachloroethane	--	--	--	--	--	NA	NA	--
Indeno(1,2,3-cd)pyrene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Pentachlorophenol	chicken	1.50	8 weeks	oral in diet	systemic/growth	8.52	4.26	Eisler, 1989
Phenanthrene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963
Pyrene	chicken	1.50	35 days	oral in diet	reproduction	35.5	7.10	Rigdon and Neal, 1963

NA - Not Available

TABLE 6-10
Selection of Chemicals of Potential Concern in Surface Water - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequ-ency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Inorganics (UG/L)																		
Aluminum	200 - 200	200	7,150	J	MR04-SW04-06A	UG/L	15 / 17	--	NA	--	NA	NSV	--	YES	NSL	7,150	-- / --	NSV
Antimony	3.20 - 20.0	20.0	2.60	J	MR04-SW02-07C	UG/L	1 / 17	--	NA	--	NA	NSV	--	YES	NSL	2.60	-- / --	NSV
Arsenic	2.90 - 2.90	2.90	17.6	J	MR04-SW06-07C	UG/L	9 / 17	50.0	No	36.0	No	36.0	USEPA Region 4	NO	BSL	17.6	0 / 17	0.49
Barium	50.0 - 200	200	76.6	J	MR04-SW02-07C	UG/L	6 / 17	--	NA	--	NA	NSV	--	YES	NSL	76.6	-- / --	NSV
Beryllium	0.20 - 5.00	5.00	0.37	J	MR04-SW04-06A	UG/L	4 / 17	--	NA	--	NA	NSV	--	YES	NSL	0.37	-- / --	NSV
Cadmium	0.40 - 10.0	10.0	--		--	UG/L	0 / 17	5.00	Yes	9.30	Yes	5.00	NCDENR	YES	NCSWQS; DL	10.0	-- / --	2.00
Calcium	-- - --	--	288,000		MR04-SW05-07C	UG/L	17 / 17	--	NA	--	NA	NSV	--	NO	EN	288,000	-- / --	NSV
Chromium	1.00 - 20.0	20.0	8.20	J+	MR04-SW04-06A	UG/L	12 / 17	20.0	No	50.0	No	20.0	NCDENR	NO	BSL	8.20	0 / 17	0.41
Cobalt	0.90 - 10.0	10.0	4.40	J	MR04-SW06-07C	UG/L	3 / 17	--	NA	--	NA	NSV	--	YES	NSL	4.40	-- / --	NSV
Copper	0.70 - 125	125	--		--	UG/L	0 / 17	3.00	Yes	2.90	Yes	2.90	USEPA Region 4	YES	NCSWQS; DL	125	-- / --	43.1
Cyanide	5.00 - 10.0	10.0	--		--	UG/L	0 / 17	1.00	Yes	1.00	Yes	1.00	NCDENR	YES	NCSWQS; DL	10.0	-- / --	10.0
Iron	-- - --	--	4,970		MR04-SW04-06A	UG/L	17 / 17	--	NA	--	NA	NSV	--	YES	NSL	4,970	-- / --	NSV
Lead	2.00 - 10.0	10.0	12.6		MR04-SW09-06A	UG/L	8 / 17	25.0	No	8.50	Yes	8.50	USEPA Region 4	YES	ASL	12.6	1 / 17	1.48
Magnesium	5,000 - 5,000	5,000	920,000		MR04-SW05-07C	UG/L	15 / 17	--	NA	--	NA	NSV	--	NO	EN	920,000	-- / --	NSV
Manganese	15.0 - 15.0	15.0	112	J+	MR04-SW05-06A	UG/L	15 / 17	--	NA	--	NA	NSV	--	YES	NSL	112	-- / --	NSV
Mercury	0.10 - 0.20	0.20	--		--	UG/L	0 / 17	0.025	Yes	0.025	Yes	0.025	NCDENR	YES	NCSWQS; DL	0.20	-- / --	8.00
Nickel	1.40 - 25.0	25.0	2.70	J+	MR04-SW04-06A	UG/L	2 / 17	8.30	No	8.30	No	8.30	NCDENR	NO	BSL	2.70	0 / 17	0.33
Potassium	5,000 - 5,000	5,000	289,000		MR04-SW05-07C	UG/L	14 / 17	--	NA	--	NA	NSV	--	NO	EN	289,000	-- / --	NSV
Selenium	3.10 - 3.10	3.10	54.0	J	MR04-SW06-07C	UG/L	7 / 17	71.0	No	71.0	No	71.0	NCDENR	NO	BSL	54.0	0 / 17	0.76
Silver	0.70 - 10.0	10.0	0.25	J	MR04-SW06-07C	UG/L	2 / 17	0.10	Yes	0.23	Yes	0.10	NCDENR	YES	NCSWQS; ASL	0.25	2 / 17	2.50
Sodium	-- - --	--	7,160,000		MR04-SW03-07C	UG/L	17 / 17	--	NA	--	NA	NSV	--	NO	EN	7,160,000	-- / --	NSV
Thallium	2.20 - 10.0	10.0	3.80	J-	MR04-SW05-06A	UG/L	6 / 17	--	NA	21.3	NA	21.3	USEPA Region 4	NO	BSL	3.80	0 / 17	0.18
Vanadium	0.90 - 50.0	50.0	25.6	J	MR04-SW03-07C	UG/L	10 / 17	--	NA	--	NA	NSV	--	YES	NSL	25.6	-- / --	NSV
Zinc	20.0 - 100	100	31.9	J	MR04-SW09-06A	UG/L	3 / 15	86.0	No	86.0	No	86.0	NCDENR	NO	BSL	31.9	0 / 15	0.37
Dissolved Metals (UG/L)																		
Aluminum	-- - --	--	1,500		MR04-SW06-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	YES	NSL	1,500	-- / --	NSV
Antimony	10.0 - 20.0	20.0	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	20.0	-- / --	NSV
Arsenic	-- - --	--	18.2	J	MR04-SW05-07C	UG/L	7 / 7	50.0	No	36.0	No	36.0	USEPA Region 4	NO	BSL	18.2	0 / 7	0.51
Barium	50.0 - 50.0	50.0	51.4	J	MR04-SW02-07C	UG/L	5 / 7	--	NA	--	NA	NSV	--	YES	NSL	51.4	-- / --	NSV
Beryllium	5.00 - 5.00	5.00	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	5.00	-- / --	NSV
Cadmium	5.00 - 10.0	10.0	--		--	UG/L	0 / 7	5.00	Yes	9.30	Yes	5.00	NCDENR	YES	NCSWQS; DL	10.0	-- / --	2.00
Calcium	-- - --	--	281,000		MR04-SW02-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	NO	EN	281,000	-- / --	NSV
Chromium	20.0 - 20.0	20.0	4.30	J	MR04-SW04-07C	UG/L	4 / 7	20.0	No	50.0	No	20.0	NCDENR	NO	BSL	4.30	0 / 7	0.22
Cobalt	10.0 - 10.0	10.0	4.20	J	MR04-SW06-07C	UG/L	4 / 7	--	NA	--	NA	NSV	--	YES	NSL	4.20	-- / --	NSV
Copper	50.0 - 125	125	--		--	UG/L	0 / 7	3.00	Yes	2.90	Yes	2.90	USEPA Region 4	YES	NCSWQS; DL	125	-- / --	43.1
Iron	-- - --	--	718		MR04-SW02-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	YES	NSL	718	-- / --	NSV
Lead	5.00 - 10.0	10.0	2.10	J	MR04-SW02-07C	UG/L	3 / 7	25.0	No	8.50	No	8.50	USEPA Region 4	NO	BSL	2.10	0 / 7	0.25
Magnesium	-- - --	--	876,000		MR04-SW01-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	NO	EN	876,000	-- / --	NSV
Manganese	-- - --	--	37.7		MR04-SW01-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	YES	NSL	37.7	-- / --	NSV
Mercury	0.20 - 0.20	0.20	--		--	UG/L	0 / 7	0.025	Yes	0.025	Yes	0.025	NCDENR	YES	NCSWQS; DL	0.20	-- / --	8.00
Nickel	10.0 - 25.0	25.0	--		--	UG/L	0 / 7	8.30	Yes	8.30	Yes	8.30	NCDENR	YES	NCSWQS; DL	25.0	-- / --	3.01
Potassium	-- - --	--	280,000		MR04-SW05-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	NO	EN	280,000	-- / --	NSV
Selenium	-- - --	--	42.3	J	MR04-SW06-07C	UG/L	7 / 7	71.0	No	71.0	No	71.0	NCDENR	NO	BSL	42.3	0 / 7	0.60
Silver	10.0 - 10.0	10.0	0.20	J	MR04-SW06-07C	UG/L	2 / 7	0.10	Yes	0.23	Yes	0.10	NCDENR	YES	NCSWQS; ASL	0.20	2 / 7	2.00
Sodium	-- - --	--	7,330,000		MR04-SW01-07C	UG/L	7 / 7	--	NA	--	NA	NSV	--	NO	EN	7,330,000	-- / --	NSV
Thallium	5.00 - 5.00	5.00	1.20	J	MR04-SW08-07C	UG/L	5 / 7	--	NA	21.3	NA	21.3	USEPA Region 4	NO	BSL	1.20	0 / 7	0.06
Vanadium	25.0 - 50.0	50.0	4.70	J	MR04-SW05-07C	UG/L	1 / 7	--	NA	--	NA	NSV	--	YES	NSL	4.70	-- / --	NSV
Zinc	100 - 100	100	61.8	J	MR04-SW08-07C	UG/L	1 / 5	86.0	No	86.0	No	86.0	NCDENR	NO	BSL	61.8	0 / 5	0.72
Pesticide/Polychlorinated Biphenyls (UG/L)																		
4,4'-DDD	0.020 - 0.13	0.13	0.010	J	MR04-SW07-06A	UG/L	1 / 17	--	NA	0.025	No	0.025	USEPA Region 4	NO	BSL	0.01	0 / 17	0.40
4,4'-DDE	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	--	NA	0.14	No	0.14	USEPA Region 4	NO	ND	0.13	-- / --	0.93
4,4'-DDT	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	0.001	Yes	0.001	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.13	-- / --	130
Aldrin	0.010 - 0.060	0.060	--		--	UG/L	0 / 17	0.003	Yes	0.13	No	0.003	NCDENR	YES	NCSWQS; DL	0.06	-- / --	20.0
Aroclor-1016	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300
Aroclor-1221	0.19 - 2.50	205.00	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	205	-- / --	205,000
Aroclor-1232	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300
Aroclor-1242	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300
Aroclor-1248	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300
Aroclor-1254	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300
Aroclor-1260	0.19 - 1.30	1.30	--		--	UG/L	0 / 17	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	1.30	-- / --	1,300

TABLE 6-10
Selection of Chemicals of Potential Concern in Surface Water - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequ-ency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Aroclor-1262	0.19 - 0.24	0.25	--		--	UG/L	0 / 7	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.25	-- / --	250
Aroclor-1268	0.19 - 0.24	0.25	--		--	UG/L	0 / 7	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.25	-- / --	250
Dieldrin	0.020 - 0.13	0.13	0.040	J	MR04-SW07-06A	UG/L	3 / 17	0.002	Yes	0.0019	Yes	0.0019	USEPA Region 4	YES	NCSWQS; ASL	0.04	3 / 17	21.1
Endosulfan I	0.010 - 0.060	0.060	--		--	UG/L	0 / 17	0.009	Yes	0.0087	Yes	0.0087	USEPA Region 4	YES	NCSWQS; DL	0.06	-- / --	6.90
Endosulfan II	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	--	NA	0.0087	Yes	0.0087	USEPA Region 4	YES	DL	0.13	-- / --	14.9
Endosulfan sulfate	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.13	-- / --	NSV
Endrin	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	0.002	Yes	0.0023	Yes	0.002	NCDENR	YES	NCSWQS; DL	0.13	-- / --	65.0
Endrin aldehyde	0.020 - 0.13	0.13	0.040	J	MR04-SW01-06A	UG/L	1 / 17	--	NA	--	NA	NSV	--	YES	NSL	0.04	-- / --	NSV
Endrin ketone	0.020 - 0.13	0.13	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.13	-- / --	NSV
Heptachlor	0.010 - 0.060	0.060	0.014	J	MR04-SW08-07C	UG/L	2 / 17	0.004	Yes	0.0036	Yes	0.0036	USEPA Region 4	YES	NCWQS; ASL	0.01	2 / 17	3.89
Heptachlor epoxide	0.010 - 0.20	0.20	--		--	UG/L	0 / 17	--	NA	0.0036	Yes	0.0036	USEPA Region 4	YES	DL	0.20	-- / --	55.6
Methoxychlor	0.10 - 0.63	0.63	--		--	UG/L	0 / 17	0.03	Yes	0.03	Yes	0.03	NCDENR	YES	NCSWQS; DL	0.63	-- / --	21.0
Toxaphene	1.00 - 6.30	6.30	--		--	UG/L	0 / 17	0.0002	Yes	0.0002	Yes	0.0002	NCDENR	YES	NCSWQS; DL	6.30	-- / --	31,500
alpha-BHC	0.010 - 0.060	0.600	0.0064	J	MR04-SW08-07C	UG/L	1 / 17	--	NA	1,400	No	1,400	USEPA Region 4	NO	BSL	0.01	0 / 17	0.000005
alpha-Chlordane	0.010 - 0.060	0.600	--		--	UG/L	0 / 17	0.004	Yes	0.004	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.60	-- / --	NSV
beta-BHC	0.010 - 0.060	0.600	0.011	J	MR04-SW08-07C	UG/L	2 / 17	--	NA	--	NA	NSV	--	YES	NSL	0.01	-- / --	NSV
delta-BHC	0.010 - 0.060	0.600	0.018	J	MR04-SW08-07C	UG/L	1 / 17	--	NA	--	NA	NSV	--	YES	NSL	0.02	-- / --	NSV
gamma-BHC (Lindane)	0.010 - 0.060	0.600	--		--	UG/L	0 / 17	0.004	Yes	0.016	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.60	-- / --	150
gamma-Chlordane	0.010 - 0.060	0.600	--		--	UG/L	0 / 17	0.004	Yes	0.004	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.60	-- / --	NSV
Semivolatile Organic Compounds (UG/L)																		
1,1-Biphenyl	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
1,2,4,5-Tetrachlorobenzene	5.10 - 5.40	5.40	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	5.40	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2,3,4,6-Tetrachlorophenol	5.10 - 5.40	5.40	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	5.40	-- / --	NSV
2,4,5-Trichlorophenol	5.10 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	35.0	-- / --	NSV
2,4,6-Trichlorophenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2,4-Dichlorophenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2,4-Dimethylphenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2,4-Dinitrophenol	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	48.5	No	48.5	USEPA Region 4	NO	ND	35.0	-- / --	0.72
2,4-Dinitrotoluene	5.10 - 5.40	5.40	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	5.40	-- / --	NSV
2,6-Dinitrotoluene	5.10 - 5.40	5.40	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	5.40	-- / --	NSV
2-Chloronaphthalene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2-Chlorophenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2-Methylnaphthalene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2-Methylphenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
2-Nitroaniline	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	35.0	-- / --	NSV
2-Nitrophenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
3,3'-Dichlorobenzidine	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
3-Nitroaniline	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	35.0	-- / --	NSV
4,6-Dinitro-2-methylphenol	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	35.0	-- / --	NSV
4-Bromophenyl-phenylether	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
4-Chloro-3-methylphenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
4-Chloroaniline	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
4-Chlorophenyl-phenylether	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
4-Methylphenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
4-Nitroaniline	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	35.0	-- / --	NSV
4-Nitrophenol	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	71.7	No	71.7	USEPA Region 4	NO	ND	35.0	-- / --	0.49
Acenaphthene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	9.70	Yes	9.70	USEPA Region 4	YES	DL	14.0	-- / --	1.44
Acenaphthylene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Acetophenone	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Anthracene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Atrazine	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzaldehyde	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzo(a)anthracene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzo(a)pyrene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzo(b)fluoranthene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzo(g,h,i)perylene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Benzo(k)fluoranthene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Butylbenzylphthalate	5.20 - 14.0	14.0	1.30	J	MR04-SW01-07C	UG/L	5 / 17	--	NA	29.4	No	29.4	USEPA Region 4	NO	BSL	1.30	0 / 17	0.04
Caprolactam	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Carbazole	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV

TABLE 6-10
Selection of Chemicals of Potential Concern in Surface Water - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequ-ency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Chrysene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Di-n-butylphthalate	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	3.40	No	3.40	USEPA Region 4	YES	DL	14.0	-- / --	4.12
Di-n-octylphthalate	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Dibenz(a,h)anthracene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Dibenzofuran	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Diethylphthalate	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	75.9	No	75.9	USEPA Region 4	NO	ND	14.0	-- / --	0.18
Dimethyl phthalate	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	580	No	580	USEPA Region 4	NO	ND	14.0	-- / --	0.02
Fluoranthene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	1.60	Yes	1.60	USEPA Region 4	YES	DL	14.0	-- / --	8.75
Fluorene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Hexachlorobenzene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Hexachlorobutadiene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	0.32	Yes	0.32	USEPA Region 4	YES	DL	14.0	-- / --	43.8
Hexachlorocyclopentadiene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	0.07	Yes	0.07	USEPA Region 4	YES	DL	14.0	-- / --	200
Hexachloroethane	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	9.40	Yes	9.40	USEPA Region 4	YES	DL	14.0	-- / --	1.49
Indeno(1,2,3-cd)pyrene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Isophorone	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	129	No	129	USEPA Region 4	NO	ND	14.0	-- / --	0.11
Naphthalene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	23.5	No	23.5	USEPA Region 4	NO	ND	14.0	-- / --	0.60
Nitrobenzene	5.10 - 5.40	5.40	--		--	UG/L	0 / 7	--	NA	66.8	No	66.8	USEPA Region 4	NO	ND	5.40	-- / --	0.08
Pentachlorophenol	10.0 - 35.0	35.0	--		--	UG/L	0 / 17	--	NA	7.90	Yes	7.90	USEPA Region 4	YES	DL	35.0	-- / --	4.43
Phenanthrene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
Phenol	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	58.0	No	58.0	USEPA Region 4	NO	ND	14.0	-- / --	0.24
Pyrene	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
bis(2-Chloroethoxy)methane	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
bis(2-Chloroethyl)ether	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
bis(2-Ethylhexyl)phthalate	5.10 - 12.0	12.0	16.0		MR04-SW07-06A	UG/L	9 / 17	--	NA	--	NA	NSV	--	YES	NSL	16.0	-- / --	NSV
n-Nitroso-di-n-propylamine	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	14.0	-- / --	NSV
n-Nitrosodiphenylamine	5.10 - 14.0	14.0	--		--	UG/L	0 / 17	--	NA	33,000	No	33,000	USEPA Region 4	NO	ND	14.0	-- / --	0.0004
Explosives (UG/L)																		
1,3,5-Trinitrobenzene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
1,3-Dinitrobenzene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2,4,6-Trinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2,4-Dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2,6-Dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2-Amino-4,6-dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2-Nitrotoluene	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
3-Nitrotoluene	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
4-Amino-2,6-dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
4-Nitrotoluene	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
HMX	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Nitrobenzene	0.25 - 0.26	0.26	--		--	UG/L	0 / 17	--	NA	66.8	No	66.8	USEPA Region 4	NO	ND	0.26	-- / --	0.004
Perchlorate	1.00 - 50.0	50.0	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	50.0	-- / --	NSV
RDX	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Tetryl	0.25 - 0.52	0.52	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Volatile Organic Compounds (UG/L)																		
1,1,1-Trichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	312	No	312	USEPA Region 4	NO	ND	10.0	-- / --	0.03
1,1,2,2-Tetrachloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	90.2	No	90.2	USEPA Region 4	NO	ND	10.0	-- / --	0.11
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1,2-Trichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1-Dichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	2,240	No	2,240	USEPA Region 4	NO	ND	10.0	-- / --	0.004
1,2,3-Trichlorobenzene	0.50 - 0.50	0.50	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
1,2,4-Trichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	4.50	Yes	4.50	USEPA Region 4	YES	DL	10.0	-- / --	2.22
1,2-Dibromo-3-chloropropane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,2-Dibromoethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,2-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	19.7	No	19.7	USEPA Region 4	NO	ND	10.0	-- / --	0.51
1,2-Dichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	1,130	No	1,130	USEPA Region 4	NO	ND	10.0	-- / --	0.01
1,2-Dichloropropane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	2,400	No	2,400	USEPA Region 4	NO	ND	10.0	-- / --	0.004
1,3-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	28.5	No	28.5	USEPA Region 4	NO	ND	10.0	-- / --	0.35
1,4-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	19.9	No	19.9	USEPA Region 4	NO	ND	10.0	-- / --	0.50
2-Butanone	10.0 - 10.0	10.0	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
2-Hexanone	5.00 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
4-Methyl-2-pentanone	5.00 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV

TABLE 6-10
Selection of Chemicals of Potential Concern in Surface Water - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequ-ency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Acetone	10.0 - 10.0	10.0	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Benzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	109	No	109	USEPA Region 4	NO	ND	10.0	-- / --	0.09
Bromochloromethane	0.50 - 0.50	0.50	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
Bromodichloromethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Bromoform	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	640	No	640	USEPA Region 4	NO	ND	10.0	-- / --	0.02
Bromomethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	120	No	120	USEPA Region 4	NO	ND	10.0	-- / --	0.08
Carbon disulfide	0.50 - 10.0		1.40		MR04-SW08-07C	UG/L	4 / 17	--	NA	--	NA	NSV	--	YES	NSL	1.40	-- / --	NSV
Carbon tetrachloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	1,500	No	1,500	USEPA Region 4	NO	ND	10.0	-- / --	0.01
Chlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	105	No	105	USEPA Region 4	NO	ND	10.0	-- / --	0.10
Chloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Chloroform	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	815	No	815	USEPA Region 4	NO	ND	10.0	-- / --	0.01
Chloromethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	2,700	No	2,700	USEPA Region 4	NO	ND	10.0	-- / --	0.004
Cyclohexane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Dibromochloromethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Dichlorodifluoromethane (Freon-12)	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Ethylbenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	4.30	Yes	4.30	USEPA Region 4	YES	DL	10.0	-- / --	2.33
Isopropylbenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methyl acetate	10.0 - 10.0	10.0	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methyl-tert-butyl ether (MTBE)	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methylcyclohexane	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methylene chloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	2,560	No	2,560	USEPA Region 4	NO	ND	10.0	-- / --	0.004
Styrene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Tetrachloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	45.0	No	45.0	USEPA Region 4	NO	ND	10.0	-- / --	0.22
Toluene	0.50 - 10.0		3.00	J	MR04-SW08-06A	UG/L	1 / 17	--	NA	37.0	No	37.0	USEPA Region 4	NO	BSL	3.00	0 / 17	0.08
Trichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Trichlorofluoromethane(Freon-11)	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Vinyl chloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Xylene, total	10.0 - 10.0	10.0	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
cis-1,2-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
cis-1,3-Dichloropropene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	7.90	NA	7.90	USEPA Region 4	YES	DL	10.0	-- / --	1.27
m-Xylene	0.50 - 0.50	0.50	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
p-Xylene	0.50 - 0.50	0.50	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
o-Xylene	0.50 - 0.50	0.50	--		--	UG/L	0 / 7	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
trans-1,2-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
trans-1,3-Dichloropropene	0.50 - 10.0	10.0	--		--	UG/L	0 / 17	--	NA	7.90	Yes	7.90	USEPA Region 4	YES	DL	10.0	-- / --	1.27
Total Petroleum Hydrocarbons (UG/L)																		
Oil and Grease	5,400 - 5,900		11,000		MR04-SW02-06A	UG/L	1 / 10	--	NA	--	NA	NSV	--	YES	NSL	11,000	-- / --	NSV
TPH-diesel range	92.0 - 180	180	--		--	UG/L	0 / 10	--	NA	--	NA	NSV	--	YES	NDNSL	180	-- / --	NSV
TPH-gas range	34.0 - 100		29.0	J	MR04-SW08-06A	UG/L	2 / 10	--	NA	--	NA	NSV	--	YES	NSL	29.0	-- / --	NSV

1 - Based on US EPA's Region 4 Water Management Division, Water Quality Standards Unit's Screening List (2001)

2 - NC DENR, "North Carolina Surface Water Quality Standard for Aquatic Life." NC Administrative Code 15A NCAC 02B .0100 & .0200. April 2003

Rationale for Elimination/Selection:
ASL: Above Screening Levels (Category 1)
BSL: Below Screening Level (detections)
ND: Not Detected and Not above Screening Level
NDNSL: Not Detected and No Screening Level (Category 4)
NSL: No Screening Level (Category 3)
DL: Detection Limit is Above Screening Level (Category 2)
NCSWQS: Exceeds North Carolina Surface Water Quality Standard (Category 5)
EN - Essential Nutrient

Qualifier:
J: Estimated Value

ug/L: microgram per liter

TABLE 6-11
Selection of Chemicals of Potential Concern in Sediment - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentr-ation	Units	Frequency of Detection	Screening Value	Source of Screening Value[1]	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Inorganics (MG/KG)														
Aluminum	-- - --	--	17,500		MR04-SD02-07C	MG/KG	17 / 17	NSV	--	YES	NSL	17,500	-- / --	NSV
Antimony	0.49 - 27.7	27.7	0.39	J	MR04-SD03-07C	MG/KG	1 / 17	2.00	USEPA Region 4	NO	BSL	0.39	0 / 17	0.20
Arsenic	2.60 - 2.60	2.60	4.80		MR04-SD08-07C	MG/KG	16 / 17	7.24	USEPA Region 4	NO	BSL	4.80	0 / 17	0.66
Barium	34.7 - 208	208	60.3		MR04-SD02-06A	MG/KG	10 / 17	NSV	--	YES	NSL	60.3	-- / --	NSV
Beryllium	0.50 - 5.20	5.20	0.48	J	MR04-SD02-07C	MG/KG	8 / 17	NSV	--	YES	NSL	0.48	-- / --	NSV
Cadmium	0.061 - 1.00	1.00	0.46	J	MR04-SD08-07C	MG/KG	7 / 17	0.676	USEPA Region 4	NO	BSL	0.46	0 / 17	0.68
Calcium	867 - 1,010	1,010	12,200		MR04-SD09-06A	MG/KG	13 / 17	NSV	--	NO	EN	12,200	-- / --	NSV
Chromium	-- - --	--	19.8		MR04-SD10-06A	MG/KG	17 / 17	52.3	USEPA Region 4	NO	BSL	19.8	0 / 17	0.38
Cobalt	0.14 - 5.00	5.00	1.60	J	MR04-SD08-07C	MG/KG	8 / 17	NSV	--	YES	NSL	1.60	-- / --	NSV
Copper	2.20 - 26.0	26.0	199		MR04-SD06-06A	MG/KG	8 / 17	18.7	USEPA Region 4	YES	ASL	199	2 / 17	10.6
Cyanide	0.18 - 15.3	15.3	--		--	MG/KG	0 / 17	NSV	--	YES	NDNSL	15.3	-- / --	NSV
Iron	-- - --	--	11,800	J	MR04-SD01-06A	MG/KG	17 / 17	NSV	--	YES	NSL	11,800	-- / --	NSV
Lead	-- - --	--	112		MR04-SD10-06A	MG/KG	17 / 17	30.2	USEPA Region 4	YES	ASL	112	8 / 17	3.71
Magnesium	770 - 4,380	4,380	7,920		MR04-SD08-07C	MG/KG	10 / 17	NSV	--	NO	EN	7,920	-- / --	NSV
Manganese	1.50 - 1.50	1.50	20.7		MR04-SD06-06A	MG/KG	16 / 17	NSV	--	YES	NSL	20.7	-- / --	NSV
Mercury	0.019 - 0.12	0.12	0.24		MR04-SD10-06A	MG/KG	12 / 17	0.13	USEPA Region 4	YES	ASL	0.24	3 / 17	1.85
Nickel	4.00 - 11.4	11.4	6.40	J	MR04-SD08-07C	MG/KG	14 / 17	15.9	USEPA Region 4	NO	BSL	6.40	0 / 17	0.40
Potassium	178 - 5,200	5,200	2,220	J	MR04-SD08-07C	MG/KG	8 / 17	NSV	--	NO	EN	2,220	-- / --	NSV
Selenium	0.42 - 16.2	16.2	4.00	J	MR04-SD06-06A	MG/KG	6 / 17	NSV	--	YES	NSL	4.00	-- / --	NSV
Silver	0.11 - 4.60	4.60	--		--	MG/KG	0 / 17	0.733	USEPA Region 4	YES	DL	4.60	-- / --	6.28
Sodium	867 - 4,380	4,380	33,400		MR04-SD08-07C	MG/KG	13 / 17	NSV	--	NO	EN	33,400	-- / --	NSV
Thallium	0.34 - 11.5	11.5	--		--	MG/KG	0 / 17	NSV	--	YES	NDNSL	11.5	-- / --	NSV
Vanadium	-- - --	--	44.5	J	MR04-SD06-06A	MG/KG	17 / 17	NSV	--	YES	NSL	44.5	-- / --	NSV
Zinc	6.00 - 6.00	6.00	91.2		MR04-SD08-07C	MG/KG	16 / 17	124	USEPA Region 4	NO	BSL	91.2	0 / 17	0.74
Pesticide/Polychlorinated Biphenyls (UG/KG)														
4,4'-DDD	4.40 - 25.0	25.0	1,100		MR04-SD02-06A	UG/KG	14 / 17	1.22	USEPA Region 4	YES	ASL	1,100	13 / 17	902
4,4'-DDE	4.40 - 5.80	5.80	520		MR04-SD03-06A	UG/KG	15 / 17	2.27	USEPA Region 4	YES	ASL	520	13 / 17	229
4,4'-DDT	4.00 - 25.0	25.0	190		MR04-SD03-06A	UG/KG	10 / 17	1.19	USEPA Region 4	YES	ASL	190	8 / 17	160
Aldrin	2.10 - 13.0	13.0	5.40	J	MR04-SD08-07C	UG/KG	1 / 17	NSV	--	YES	NSL	5.40	-- / --	NSV
Aroclor-1016	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Aroclor-1221	82.0 - 510	510	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	510	-- / --	23.6
Aroclor-1232	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Aroclor-1242	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Aroclor-1248	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Aroclor-1254	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Aroclor-1260	40.0 - 250	250	--		--	UG/KG	0 / 17	21.6	USEPA Region 4	YES	DL	250	-- / --	11.6
Dieldrin	4.00 - 25.0	25.0	23.0		MR04-SD08-07C	UG/KG	5 / 17	0.02	USEPA Region 4	YES	ASL	23.0	5 / 17	1,150
Endosulfan I	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Endosulfan II	4.00 - 25.0	25.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	25.0	-- / --	NSV
Endosulfan sulfate	4.00 - 25.0	25.0	85.0		MR04-SD09-06A	UG/KG	5 / 17	NSV	--	YES	NSL	85.0	-- / --	NSV
Endrin	4.00 - 25.0	25.0	4.10	J	MR04-SD10-06A	UG/KG	1 / 17	0.02	USEPA Region 4	YES	ASL	4.10	1 / 17	205
Endrin aldehyde	4.00 - 25.0	25.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	25.0	-- / --	NSV
Endrin ketone	4.00 - 25.0	25.0	24.0		MR04-SD09-06A	UG/KG	6 / 17	NSV	--	YES	NSL	24.0	-- / --	NSV
Heptachlor	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Heptachlor epoxide	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Methoxychlor	21.0 - 130	130	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	130	-- / --	NSV

TABLE 6-11
Selection of Chemicals of Potential Concern in Sediment - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentr-ation	Units	Frequency of Detection	Screening Value	Source of Screening Value[1]	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Toxaphene	210 - 1,300	1,300	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	1,300	-- / --	NSV
alpha-BHC	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
alpha-Chlordane	2.10 - 13.0	13.0	12.0		MR04-SD08-07C	UG/KG	2 / 17	0.50	USEPA Region 4	YES	ASL	12.0	2 / 17	24.0
beta-BHC	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
delta-BHC	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	13.0	-- / --	NSV
gamma-BHC (Lindane)	2.10 - 13.0	13.0	--		--	UG/KG	0 / 17	0.32	USEPA Region 4	YES	DL	13.0	-- / --	40.6
gamma-Chlordane	2.10 - 13.0	13.0	12.0		MR04-SD08-07C	UG/KG	2 / 17	0.50	USEPA Region 4	YES	ASL	12.0	2 / 17	24.0
Semivolatile Organic Compounds (UG/KG)														
1,1-Biphenyl	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2,4,5-Trichlorophenol	590 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
2,4,6-Trichlorophenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2,4-Dichlorophenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2,4-Dimethylphenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2,4-Dinitrophenol	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
2,4-Dinitrotoluene	400 - 2,100	2,100	--		--	UG/KG	0 / 7	NSV	--	YES	NDNSL	2,100	-- / --	NSV
2,6-Dinitrotoluene	400 - 2,100	2,100	--		--	UG/KG	0 / 7	NSV	--	YES	NDNSL	2,100	-- / --	NSV
2-Chloronaphthalene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2-Chlorophenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2-Methylnaphthalene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	20.2	USEPA Region 4	YES	DL	2,500	-- / --	124
2-Methylphenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
2-Nitroaniline	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
2-Nitrophenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
3,3'-Dichlorobenzidine	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
3-Nitroaniline	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
4,6-Dinitro-2-methylphenol	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
4-Bromophenyl-phenylether	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
4-Chloro-3-methylphenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
4-Chloroaniline	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
4-Chlorophenyl-phenylether	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
4-Methylphenol	400 - 2,500	2,500	54.0	J	MR04-SD08-06A	UG/KG	1 / 17	NSV	--	YES	NSL	54.0	-- / --	NSV
4-Nitroaniline	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
4-Nitrophenol	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
Acenaphthene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	6.71	USEPA Region 4	YES	DL	2,500	-- / --	373
Acenaphthylene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	5.87	USEPA Region 4	YES	DL	2,500	-- / --	426
Acetophenone	400 - 2,500	2,500	130	J	MR04-SD08-07C	UG/KG	5 / 17	NSV	--	YES	NSL	130	-- / --	NSV
Anthracene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	46.9	USEPA Region 4	YES	DL	2,500	-- / --	53.3
Atrazine	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Benzaldehyde	400 - 2,500	2,500	460	J	MR04-SD08-07C	UG/KG	3 / 17	NSV	--	YES	NSL	460	-- / --	NSV
Benzo(a)anthracene	410 - 2,500	2,500	25.0	J	MR04-SD03-07C	UG/KG	1 / 17	74.8	USEPA Region 4	NO	BSL	25.0	0 / 17	0.33
Benzo(a)pyrene	410 - 2,500	2,500	300	J	MR04-SD08-07C	UG/KG	3 / 17	88.8	USEPA Region 4	YES	ASL	300	2 / 17	3.38
Benzo(b)fluoranthene	410 - 2,500	2,500	530	J	MR04-SD08-07C	UG/KG	3 / 17	NSV	--	YES	NSL	530	-- / --	NSV
Benzo(g,h,i)perylene	400 - 2,500	2,500	190	J	MR04-SD08-07C	UG/KG	1 / 17	NSV	--	YES	NSL	190	-- / --	NSV
Benzo(k)fluoranthene	410 - 2,500	2,500	490	J	MR04-SD08-07C	UG/KG	2 / 17	NSV	--	YES	NSL	490	-- / --	NSV
Butylbenzylphthalate	410 - 2,500	2,500	140	J	MR04-SD06-07C	UG/KG	2 / 17	NSV	--	YES	NSL	140	-- / --	NSV
Caprolactam	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Carbazole	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV

TABLE 6-11
Selection of Chemicals of Potential Concern in Sediment - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentr-ation	Units	Frequency of Detection	Screening Value	Source of Screening Value[1]	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Chrysene	410 - 2,500	2,500	370	J	MR04-SD08-07C	UG/KG	2 / 17	108	USEPA Region 4	YES	ASL	370	1 / 17	3.43
Di-n-butylphthalate	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Di-n-octylphthalate	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Dibenz(a,h)anthracene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	6.22	USEPA Region 4	YES	DL	2,500	-- / --	402
Dibenzofuran	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Diethylphthalate	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Dimethyl phthalate	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Fluoranthene	430 - 2,500	2,500	610	J	MR04-SD08-07C	UG/KG	4 / 17	113	USEPA Region 4	YES	ASL	610	2 / 17	5.40
Fluorene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	21.2	USEPA Region 4	YES	DL	2,500	-- / --	118
Hexachlorobenzene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Hexachlorobutadiene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Hexachlorocyclopentadiene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Hexachloroethane	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Indeno(1,2,3-cd)pyrene	400 - 2,500	2,500	170	J	MR04-SD08-07C	UG/KG	1 / 17	NSV	--	YES	NSL	170	-- / --	NSV
Isophorone	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Naphthalene	400 - 2,500	2,500	--		--	UG/KG	0 / 17	34.6	USEPA Region 4	YES	DL	2,500	-- / --	72.3
Nitrobenzene	400 - 2,100	2,100	--		--	UG/KG	0 / 7	NSV	--	YES	NDNSL	2,100	-- / --	NSV
Pentachlorophenol	1,000 - 6,400	6,400	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	6,400	-- / --	NSV
Phenanthrene	410 - 2,500	2,500	37.0	J	MR04-SD03-07C	UG/KG	1 / 17	86.7	USEPA Region 4	NO	BSL	37.0	0 / 17	0.43
Phenol	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Pyrene	410 - 2,500	2,500	650	J	MR04-SD08-07C	UG/KG	2 / 17	153	USEPA Region 4	YES	ASL	650	1 / 17	4.25
bis(2-Chloroethoxy)methane	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
bis(2-Chloroethyl)ether	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
bis(2-Ethylhexyl)phthalate	410 - 1,200	1,200	1,400	J	MR04-SD10-06A	UG/KG	11 / 17	182	USEPA Region 4	YES	ASL	1,400	6 / 17	7.69
n-Nitroso-di-n-propylamine	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
n-Nitrosodiphenylamine	400 - 2,500	2,500	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	2,500	-- / --	NSV
Explosives (UG/KG)														
1,3,5-Trinitrobenzene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
1,3-Dinitrobenzene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
2,4,6-Trinitrotoluene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
2,4-Dinitrotoluene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
2,6-Dinitrotoluene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
2-Amino-4,6-dinitrotoluene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
2-Nitrotoluene	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
3-Nitrotoluene	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
4-Amino-2,6-dinitrotoluene	98.0 - 120	120	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	120	-- / --	NSV
4-Nitrotoluene	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
HMX	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
Nitrobenzene	99.0 - 120	120	30.0	J	MR04-SD04-06A	UG/KG	1 / 17	NSV	--	YES	NSL	30.0	-- / --	NSV
Perchlorate	31.0 - 180	180	--		--	UG/KG	0 / 10	NSV	--	YES	NDNSL	180	-- / --	NSV
RDX	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
Tetryl	120 - 200	200	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	200	-- / --	NSV
Volatile Organic Compounds (UG/KG)														
1,1,1-Trichloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,1,2,2-Tetrachloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,1,2-Trichloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV

TABLE 6-11
Selection of Chemicals of Potential Concern in Sediment - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentr-ation	Units	Frequency of Detection	Screening Value	Source of Screening Value[1]	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
1,1-Dichloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,1-Dichloroethene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2,4-Trichlorobenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2-Dibromo-3-chloropropane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2-Dibromoethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2-Dichlorobenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2-Dichloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,2-Dichloropropane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,3-Dichlorobenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
1,4-Dichlorobenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
2-Butanone	12.0 - 76.0	76.0	56.0	J	MR04-SD08-07C	UG/KG	3 / 17	NSV	--	YES	NSL	56.0	-- / --	NSV
2-Hexanone	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
4-Methyl-2-pentanone	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Acetone	12.0 - 76.0	76.0	270		MR04-SD08-07C	UG/KG	6 / 17	NSV	--	YES	NSL	270	-- / --	NSV
Benzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Bromodichloromethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Bromoform	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Bromomethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Carbon disulfide	12.0 - 76.0	76.0	3.70	J	MR04-SD06-07C	UG/KG	2 / 17	NSV	--	YES	NSL	3.70	-- / --	NSV
Carbon tetrachloride	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Chlorobenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Chloroethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Chloroform	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Chloromethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Cyclohexane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Dibromochloromethane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Dichlorodifluoromethane (Freon-12)	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Ethylbenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Isopropylbenzene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Methyl acetate	12.0 - 76.0	76.0	31.0	J	MR04-SD08-07C	UG/KG	2 / 17	NSV	--	YES	NSL	31.0	-- / --	NSV
Methyl-tert-butyl ether (MTBE)	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Methylcyclohexane	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Methylene chloride	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Styrene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Tetrachloroethene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Toluene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Trichloroethene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Trichlorofluoromethane(Freon-11)	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Vinyl chloride	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Xylene, total	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
cis-1,2-Dichloroethene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
cis-1,3-Dichloropropene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
trans-1,2-Dichloroethene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
trans-1,3-Dichloropropene	12.0 - 76.0	76.0	--		--	UG/KG	0 / 17	NSV	--	YES	NDNSL	76.0	-- / --	NSV
Total Petroleum Hydrocarbons (MG/KG)														
Oil and Grease	300 - 1,900	1,900	1,800		MR04-SD09-06A	MG/KG	1 / 10	NSV	--	YES	NSL	1,800	-- / --	NSV
TPH-diesel range	9.80 - 120	120	290		MR04-SD07-06A	MG/KG	3 / 10	NSV	--	YES	NSL	290	-- / --	NSV

TABLE 6-11
Selection of Chemicals of Potential Concern in Sediment - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concent-ration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentr-ation	Units	Frequency of Detection	Screening Value	Source of Screening Value[1]	COPC Flag	Rational for Elimination or Selection	Concent-ration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
TPH-gas range	0.12 - 0.76	0.76	--		--	MG/KG	0 / 10	NSV	--	YES	NDNSL	0.70	-- / --	NSV

1 - Based on US EPA's Region 4 Water Management Division, Water Quality Standards Unit's Screening List (2001)

Rationale for Elimination/Selection:
ASL: Above Screening Levels (Category 1)
BSL: Below Screening Level (detections)
ND: Not Detected and Not above Screening Level
NDNSL: Not Detected and No Screening Level (Category 4)
NSL: No Screening Level (Category 3)
DL: Detection Limit is Above Screening Level (Category 2)
EN - Essential Nutrient

Qualifier:
J: Estimated Value

mg/kg: milligrams per kilogram
ug/kg: microgram per kilogram

TABLE 6-12
Selection of Chemicals of Potential Concern in Groundwater - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concentration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concentration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Inorganics (UG/L)																		
Aluminum	200 - 200	200	2,730		MR04-GW06-07C	UG/L	21 / 30	--	NA	--	NA	NSV	--	YES	NSL	2,730	-- / --	NSV
Antimony	2.00 - 3.20	3.20	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	3.20	-- / --	NSV
Arsenic	1.00 - 2.90	2.90	0.79	J	MR04-GW02-07C	UG/L	4 / 30	50.0	No	36.0	No	36.0	USEPA Region 4	NO	BSL	0.79	0 / 30	0.02
Barium	10.0 - 200	200	269		MR04-GW06-07C	UG/L	15 / 30	--	NA	--	NA	NSV	--	YES	NSL	269	-- / --	NSV
Beryllium	0.20 - 5.00	5.00	0.65	J	MR04-MW05-06A	UG/L	8 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.65	-- / --	NSV
Cadmium	0.40 - 5.00	5.00	0.36	J	MR04-GW09-07C	UG/L	3 / 30	5.00	No	9.30	No	5.00	NCDENR	NO	BSL	0.36	0 / 30	0.07
Calcium	5,000 - 52,000	52,000	44,400		MR04-MW15-06A	UG/L	18 / 30	--	NA	--	NA	NSV	--	NO	EN	44,400	-- / --	NSV
Chromium	1.00 - 2.00	2.00	446		MR04-MW12-06A	UG/L	7 / 30	20.0	Yes	50.0	Yes	20.0	NCDENR	YES	NCSWQS; ASL	446	3 / 30	22.3
Cobalt	0.90 - 50.0	50.0	3.60		MR04-GW05-07C	UG/L	14 / 30	--	NA	--	NA	NSV	--	YES	NSL	3.60	-- / --	NSV
Copper	0.70 - 25.0	25.0	1.70	J	MR04-GW09-07C	UG/L	2 / 30	3.00	No	2.90	No	2.90	USEPA Region 4	NO	BSL	1.70	0 / 30	0.59
Cyanide	5.00 - 10.0	10.0	--		--	UG/L	0 / 30	1.00	Yes	1.00	Yes	1.00	NCDENR	YES	DL	10.0	-- / --	10.0
Iron	25.0 - 100	100	3,360		MR04-GW06-07C	UG/L	20 / 30	--	NA	--	NA	NSV	--	YES	NSL	3,360	-- / --	NSV
Lead	1.00 - 2.00	2.00	2.20	J	MR04-MW03-06A	UG/L	6 / 30	25.0	No	8.50	No	8.50	USEPA Region 4	NO	BSL	2.20	0 / 30	0.26
Magnesium	5,000 - 5,000	5,000	13,400		MR04-GW01-07C	UG/L	20 / 30	--	NA	--	NA	NSV	--	NO	EN	13,400	-- / --	NSV
Manganese	15.0 - 15.0	15.0	160		MR04-MW06-06A	UG/L	28 / 30	--	NA	--	NA	NSV	--	YES	NSL	160	-- / --	NSV
Mercury	0.10 - 0.20	0.20	0.054	J	MR04-GW08-07C	UG/L	1 / 30	0.025	Yes	0.025	Yes	0.025	NCDENR	YES	NCSWQS; ASL	0.054	1 / 30	2.16
Nickel	1.00 - 1.40	1.40	12.8		MR04-GW02-07C	UG/L	23 / 30	8.30	Yes	8.30	Yes	8.30	NCDENR	YES	NCSWQS; ASL	12.8	3 / 30	1.54
Potassium	941 - 5,000	5,000	121,000		MR04-MW12-06A	UG/L	21 / 30	--	NA	--	NA	NSV	--	NO	EN	121,000	-- / --	NSV
Selenium	3.10 - 5.00	5.00	6.90	J	MR04-GW01-07C	UG/L	11 / 30	71.0	No	71.0	No	71.0	NCDENR	NO	BSL	6.90	0 / 30	0.10
Silver	0.70 - 1.00	1.00	4.70	J	MR04-MW04-06A	UG/L	2 / 30	0.10	Yes	0.23	Yes	0.10	NCDENR	YES	NCSWQS; ASL	4.70	2 / 30	47.0
Sodium	6,910 - 10,500	10,500	69,300		MR04-MW06-06A	UG/L	28 / 30	--	NA	--	NA	NSV	--	NO	EN	69,300	-- / --	NSV
Thallium	1.00 - 2.20	2.20	5.20		MR04-MW02-06A	UG/L	1 / 30	--	NA	21.3	No	21.3	USEPA Region 4	NO	BSL	5.20	0 / 30	0.24
Vanadium	0.90 - 5.00	5.00	15.1	J	MR04-MW15-06A	UG/L	9 / 30	--	NA	--	NA	NSV	--	YES	NSL	15.1	-- / --	NSV
Zinc	10.0 - 20.0	20.0	57.3	J	MR04-MW07-06A	UG/L	10 / 24	86.0	No	86.0	No	86.0	NCDENR	NO	BSL	57.3	0 / 24	0.67
Dissolved Metals (UG/L)																		
Aluminum	200 - 200	200	2,360		MR04-GW01-07C	UG/L	17 / 30	--	NA	--	NA	NSV	--	YES	NSL	2,360	-- / --	NSV
Antimony	2.00 - 3.20	3.20	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	3.20	-- / --	NSV
Arsenic	1.00 - 2.90	2.90	0.89	J	MR04-GW12-07C	UG/L	3 / 30	50.0	No	36.0	No	36.0	USEPA Region 4	NO	BSL	0.89	0 / 30	0.02
Barium	10.0 - 200	200	224		MR04-MW03-06A	UG/L	14 / 30	--	NA	--	NA	NSV	--	YES	NSL	224	-- / --	NSV
Beryllium	0.20 - 5.00	5.00	0.73	J	MR04-MW05-06A	UG/L	9 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.73	-- / --	NSV
Cadmium	0.40 - 5.00	5.00	0.37	J	MR04-GW09-07C	UG/L	2 / 30	5.00	No	9.30	No	5.00	NCDENR	NO	BSL	0.37	0 / 30	0.07
Calcium	5,000 - 5,000	5,000	44,600		MR04-MW15-06A	UG/L	18 / 30	--	NA	--	NA	NSV	--	NO	EN	44,600	-- / --	NSV
Chromium	1.00 - 2.00	2.00	393		MR04-MW12-06A	UG/L	3 / 30	20.0	Yes	50.0	Yes	20.0	NCDENR	YES	NCSWQS; ASL	393	2 / 30	19.7
Cobalt	0.90 - 50.0	50.0	3.60		MR04-GW05-07C	UG/L	16 / 30	--	NA	--	NA	NSV	--	YES	NSL	3.60	-- / --	NSV
Copper	0.70 - 25.0	25.0	1.30	J	MR04-GW09-07C	UG/L	2 / 30	3.00	No	2.90	No	2.90	USEPA Region 4	NO	BSL	1.30	0 / 30	0.45
Iron	17.9 - 100	100	867		MR04-MW05-06A	UG/L	14 / 30	--	NA	--	NA	NSV	--	YES	NSL	867	-- / --	NSV
Lead	1.00 - 2.00	2.00	1.40		MR04-GW10-07C	UG/L	4 / 30	25.0	No	8.50	No	8.50	USEPA Region 4	NO	BSL	1.40	0 / 30	0.16
Magnesium	5,000 - 5,000	5,000	13,200		MR04-GW01-07C	UG/L	20 / 30	--	NA	--	NA	NSV	--	NO	EN	13,200	-- / --	NSV
Manganese	0.20 - 15.0	15.0	140		MR04-MW06-06A	UG/L	27 / 30	--	NA	--	NA	NSV	--	YES	NSL	140	-- / --	NSV
Mercury	0.10 - 0.20	0.20	--		--	UG/L	0 / 30	0.025	Yes	0.025	Yes	0.025	NCDENR	YES	NCSWQS; DL	0.20	-- / --	8.00
Nickel	1.00 - 2.60	2.60	13.6	J	MR04-MW07-06A	UG/L	22 / 30	8.30	Yes	8.30	Yes	8.30	NCDENR	YES	NCSWQS; ASL	13.6	3 / 30	1.64
Potassium	5,000 - 5,000	5,000	111,000		MR04-MW12-06A	UG/L	21 / 30	--	NA	--	NA	NSV	--	NO	EN	111,000	-- / --	NSV
Selenium	3.10 - 5.00	5.00	6.90	J	MR04-GW01-07C	UG/L	13 / 30	71.0	No	71.0	No	71.0	NCDENR	NO	BSL	6.90	0 / 30	0.10
Silver	0.70 - 10.0	10.0	1.10	J	MR04-MW08-06A	UG/L	1 / 30	0.10	Yes	0.23	Yes	0.10	NCDENR	YES	NCSWQS; ASL	1.10	1 / 30	11.0
Sodium	6,860 - 11,000	11,000	66,100		MR04-MW06-06A	UG/L	28 / 30	--	NA	--	NA	NSV	--	NO	EN	66,100	-- / --	NSV
Thallium	1.00 - 10.0	10.0	0.051	J	MR04-GW02-07C	UG/L	1 / 30	--	NA	21.3	No	21.3	USEPA Region 4	NO	BSL	0.051	0 / 30	0.002
Vanadium	0.90 - 5.00	5.00	14.6	J	MR04-MW15-06A	UG/L	9 / 30	--	NA	--	NA	NSV	--	YES	NSL	14.6	-- / --	NSV
Zinc	10.0 - 20.0	20.0	67.0		MR04-MW07-06A	UG/L	9 / 24	86.0	No	86.0	No	86.0	NCDENR	NO	BSL	67.0	0 / 24	0.78
Pesticide/Polychlorinated Biphenyls (UG/L)																		
4,4'-DDD	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	0.025	Yes	0.025	USEPA Region 4	YES	DL	0.25	-- / --	10.0
4,4'-DDE	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	0.14	Yes	0.14	USEPA Region 4	YES	DL	0.25	-- / --	1.79
4,4'-DDT	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	0.001	Yes	0.001	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.25	-- / --	250

TABLE 6-12
Selection of Chemicals of Potential Concern in Groundwater - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concentration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concentration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
Aldrin	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.003	Yes	0.13	Yes	0.003	NCDENR	YES	NCSWQS; DL	0.13	-- / --	43.3
Aroclor-1016	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1221	0.19 - 5.00	5.00	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	5.00	-- / --	5,000
Aroclor-1232	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1242	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1248	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1254	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1260	0.19 - 2.50	2.50	--		--	UG/L	0 / 30	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	2.50	-- / --	2,500
Aroclor-1262	0.19 - 0.22	0.22	--		--	UG/L	0 / 15	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.22	-- / --	220
Aroclor-1268	0.19 - 0.22	0.22	--		--	UG/L	0 / 15	0.001	Yes	0.03	Yes	0.001	NCDENR	YES	NCSWQS; DL	0.22	-- / --	220
Dieldrin	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	0.002	Yes	0.0019	Yes	0.0019	USEPA Region 4	YES	NCSWQS; DL	0.25	-- / --	132
Endosulfan I	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.009	Yes	0.0087	Yes	0.0087	USEPA Region 4	YES	NCSWQS; DL	0.13	-- / --	14.9
Endosulfan II	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	0.0087	Yes	0.0087	USEPA Region 4	YES	DL	0.25	-- / --	28.7
Endosulfan sulfate	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.25	-- / --	NSV
Endrin	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	0.002	Yes	0.0023	Yes	0.002	NCDENR	YES	NCSWQS; DL	0.25	-- / --	125
Endrin aldehyde	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.25	-- / --	NSV
Endrin ketone	0.019 - 0.25	0.25	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.25	-- / --	NSV
Heptachlor	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.004	Yes	0.0036	Yes	0.0036	USEPA Region 4	YES	NCSWQS; DL	0.13	-- / --	36.1
Heptachlor epoxide	0.0094 - 0.24	0.24	0.21		MR04-MW13-06A	UG/L	3 / 30	--	NA	0.0036	Yes	0.0036	USEPA Region 4	YES	ASL	0.21	3 / 30	58.3
Methoxychlor	0.094 - 1.30	1.30	--		--	UG/L	0 / 30	0.03	Yes	0.03	Yes	0.030	NCDENR	YES	NCSWQS; DL	1.3	-- / --	43.3
Toxaphene	0.94 - 13.0	13.0	--		--	UG/L	0 / 30	0.0002	Yes	0.0002	Yes	0.0002	NCDENR	YES	NCSWQS; DL	13.0	-- / --	65,000
alpha-BHC	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	--	NA	1,400	No	1,400	USEPA Region 4	NO	ND	0.13	-- / --	0.0001
alpha-Chlordane	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.004	Yes	0.004	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.13	-- / --	32.5
beta-BHC	0.0094 - 0.13	0.13	0.0048	J	MR04-GW11-07C	UG/L	1 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.0048	-- / --	NSV
delta-BHC	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.13	-- / --	NSV
gamma-BHC (Lindane)	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.004	Yes	0.016	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.13	-- / --	32.5
gamma-Chlordane	0.0094 - 0.13	0.13	--		--	UG/L	0 / 30	0.004	Yes	0.004	Yes	0.004	NCDENR	YES	NCSWQS; DL	0.13	-- / --	32.5
Semivolatile Organic Compounds (UG/L)																		
1,1-Biphenyl	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
1,2,4,5-Tetrachlorobenzene	4.80 - 6.90	6.90	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	6.90	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2,3,4,6-Tetrachlorophenol	4.80 - 6.90	6.90	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	6.90	-- / --	NSV
2,4,5-Trichlorophenol	4.80 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	33.0	-- / --	NSV
2,4,6-Trichlorophenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2,4-Dichlorophenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2,4-Dimethylphenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2,4-Dinitrophenol	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	48.5	No	48.5	USEPA Region 4	NO	ND	33.0	-- / --	0.68
2,4-Dinitrotoluene	4.80 - 6.90	6.90	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	6.90	-- / --	NSV
2,6-Dinitrotoluene	4.80 - 6.90	6.90	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	6.90	-- / --	NSV
2-Chloronaphthalene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2-Chlorophenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2-Methylnaphthalene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2-Methylphenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
2-Nitroaniline	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	33.0	-- / --	NSV
2-Nitrophenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
3,3'-Dichlorobenzidine	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
3-Nitroaniline	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	33.0	-- / --	NSV
4,6-Dinitro-2-methylphenol	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	33.0	-- / --	NSV
4-Bromophenyl-phenylether	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
4-Chloro-3-methylphenol	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
4-Chloroaniline	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
4-Chlorophenyl-phenylether	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
4-Methylphenol	4.80 - 13.0	13.0	1.20	J	MR04-MW10-06A	UG/L	1 / 30	--	NA	--	NA	NSV	--	YES	NSL	1.20	-- / --	NSV

TABLE 6-12
Selection of Chemicals of Potential Concern in Groundwater - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concentration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concentration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
4-Nitroaniline	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	33.0	-- / --	NSV
4-Nitrophenol	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	71.7	No	71.7	USEPA Region 4	NO	ND	33.0	-- / --	0.46
Acenaphthene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	9.70	Yes	9.70	USEPA Region 4	YES	DL	13.0	-- / --	1.34
Acenaphthylene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Acetophenone	4.80 - 13.0	13.0	1.10	J	MR04-MW07-06A	UG/L	1 / 30	--	NA	--	NA	NSV	--	YES	NSL	1.10	-- / --	NSV
Anthracene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Atrazine	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzaldehyde	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzo(a)anthracene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzo(a)pyrene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzo(b)fluoranthene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzo(g,h,i)perylene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Benzo(k)fluoranthene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Butylbenzylphthalate	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	29.4	No	29.4	USEPA Region 4	NO	ND	13.0	-- / --	0.44
Caprolactam	4.80 - 19.0	19.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	19.0	-- / --	NSV
Carbazole	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Chrysene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Di-n-butylphthalate	5.00 - 13.0	13.0	1.10	J	MR04-GW11-07C	UG/L	2 / 30	--	NA	3.40	No	3.40	USEPA Region 4	NO	BSL	1.10	0 / 30	0.32
Di-n-octylphthalate	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Dibenz(a,h)anthracene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Dibenzofuran	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Diethylphthalate	4.80 - 13.0	13.0	2.10	J	MR04-GW15-07C	UG/L	1 / 30	--	NA	75.9	No	75.9	USEPA Region 4	NO	BSL	2.10	0 / 30	0.03
Dimethyl phthalate	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	580	No	580	USEPA Region 4	NO	ND	13.0	-- / --	0.02
Fluoranthene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	1.60	Yes	1.60	USEPA Region 4	YES	DL	13.0	-- / --	8.13
Fluorene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Hexachlorobenzene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Hexachlorobutadiene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	0.32	Yes	0.32	USEPA Region 4	YES	DL	13.0	-- / --	40.6
Hexachlorocyclopentadiene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	0.07	Yes	0.07	USEPA Region 4	YES	DL	13.0	-- / --	186
Hexachloroethane	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	9.40	Yes	9.40	USEPA Region 4	YES	DL	13.0	-- / --	1.38
Indeno(1,2,3-cd)pyrene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Isophorone	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	129	No	129	USEPA Region 4	NO	ND	13.0	-- / --	0.10
Naphthalene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	23.5	No	23.5	USEPA Region 4	NO	ND	13.0	-- / --	0.55
Nitrobenzene	4.80 - 6.90	6.90	--		--	UG/L	0 / 15	--	NA	66.8	No	66.8	USEPA Region 4	NO	ND	6.90	-- / --	0.10
Pentachlorophenol	9.50 - 33.0	33.0	--		--	UG/L	0 / 30	--	NA	7.90	Yes	7.90	USEPA Region 4	YES	DL	33.0	-- / --	4.18
Phenanthrene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
Phenol	4.80 - 13.0	13.0	0.62	J	MR04-GW06-07C	UG/L	1 / 30	--	NA	58.0	No	58.0	USEPA Region 4	NO	BSL	0.62	0 / 30	0.01
Pyrene	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
bis(2-Chloroethoxy)methane	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
bis(2-Chloroethyl)ether	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
bis(2-Ethylhexyl)phthalate	4.80 - 85.0	85.0	8.10	J	MR04-MW08-06A	UG/L	8 / 30	--	NA	--	NA	NSV	--	YES	NSL	8.10	-- / --	NSV
n-Nitroso-di-n-propylamine	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	13.0	-- / --	NSV
n-Nitrosodiphenylamine	4.80 - 13.0	13.0	--		--	UG/L	0 / 30	--	NA	33,000	No	33,000	USEPA Region 4	NO	ND	13.0	-- / --	0.0004
Explosives (UG/L)																		
1,3,5-Trinitrobenzene	0.25 - 0.26	0.26	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
1,3-Dinitrobenzene	0.25 - 0.26	0.26	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2,4,6-Trinitrotoluene	0.25 - 0.26	0.26	0.065	J	MR04-MW06-06A	UG/L	1 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.065	-- / --	NSV
2,4-Dinitrotoluene	0.25 - 0.26	0.26	0.20	J	MR04-MW07-06A	UG/L	2 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.20	-- / --	NSV
2,6-Dinitrotoluene	0.25 - 0.26	0.26	0.32		MR04-MW12-06A	UG/L	1 / 30	--	NA	--	NA	NSV	--	YES	NSL	0.32	-- / --	NSV
2-Amino-4,6-dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
2-Nitrotoluene	0.25 - 0.52	0.52	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
3-Nitrotoluene	0.25 - 0.52	0.52	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
4-Amino-2,6-dinitrotoluene	0.25 - 0.26	0.26	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.26	-- / --	NSV
4-Nitrotoluene	0.25 - 0.52	0.52	1.60		MR04-MW07-06A	UG/L	7 / 30	--	NA	--	NA	NSV	--	YES	NSL	1.60	-- / --	NSV

TABLE 6-12
Selection of Chemicals of Potential Concern in Groundwater - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concentration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concentration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
HMX	0.25 - 0.52	0.52	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Nitrobenzene	0.25 - 0.26	0.26	0.10	J	MR04-MW09-06A	UG/L	2 / 30	--	NA	66.8	No	66.8	USEPA Region 4	NO	BSL	0.10	0 / 30	0.001
Perchlorate	1.00 - 2.00	2.00	1.30		MR04-MW15-06A	UG/L	1 / 15	--	NA	--	NA	NSV	--	YES	NSL	1.30	-- / --	NSV
RDX	0.25 - 0.52	0.52	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Tetryl	0.25 - 0.52	0.52	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	0.52	-- / --	NSV
Volatile Organic Compounds (UG/L)																		
1,1,1-Trichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	312	No	312	USEPA Region 4	NO	ND	10.0	-- / --	0.03
1,1,2,2-Tetrachloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	90.2	No	90.2	USEPA Region 4	NO	ND	10.0	-- / --	0.11
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1,2-Trichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1-Dichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,1-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	2,240	No	2,240	USEPA Region 4	NO	ND	10.0	-- / --	0.004
1,2,3-Trichlorobenzene	0.50 - 0.50	0.50	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
1,2,4-Trichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	4.50	Yes	4.50	USEPA Region 4	YES	DL	10.0	-- / --	2.22
1,2-Dibromo-3-chloropropane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,2-Dibromoethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
1,2-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	19.7	No	19.7	USEPA Region 4	NO	ND	10.0	-- / --	0.51
1,2-Dichloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	1,130	No	1,130	USEPA Region 4	NO	ND	10.0	-- / --	0.01
1,2-Dichloropropane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	2,400	No	2,400	USEPA Region 4	NO	ND	10.0	-- / --	0.004
1,3-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	28.5	No	28.5	USEPA Region 4	NO	ND	10.0	-- / --	0.35
1,4-Dichlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	19.9	No	19.9	USEPA Region 4	NO	ND	10.0	-- / --	0.50
2-Butanone	10.0 - 10.0	10.0	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
2-Hexanone	5.00 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
4-Methyl-2-pentanone	5.00 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Acetone	10.0 - 10.0	10.0	5.80	J	MR04-GW06-07C	UG/L	1 / 16	--	NA	--	NA	NSV	--	YES	NSL	5.80	-- / --	NSV
Benzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	109	No	109	USEPA Region 4	NO	ND	10.0	-- / --	0.09
Bromochloromethane	0.50 - 0.50	0.50	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
Bromodichloromethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Bromoform	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	640	No	640	USEPA Region 4	NO	ND	10.0	-- / --	0.02
Bromomethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	120	No	120	USEPA Region 4	NO	ND	10.0	-- / --	0.08
Carbon disulfide	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Carbon tetrachloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	1,500	No	1,500	USEPA Region 4	NO	ND	10.0	-- / --	0.01
Chlorobenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	105	No	105	USEPA Region 4	NO	ND	10.0	-- / --	0.10
Chloroethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Chloroform	0.50 - 10.0	10.0	5.10	J	MR04-MW02-06A	UG/L	2 / 30	--	NA	815	No	815	USEPA Region 4	NO	BSL	5.10	0 / 30	0.01
Chloromethane	0.50 - 10.0	10.0	0.28	J	MR04-GW03-07C	UG/L	4 / 30	--	NA	2,700	No	2,700	USEPA Region 4	NO	BSL	0.28	0 / 30	0.0001
Cyclohexane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Dibromochloromethane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Dichlorodifluoromethane (Freon-12)	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Ethylbenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	4.30	No	4.30	USEPA Region 4	YES	DL	10.0	-- / --	2.33
Isopropylbenzene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methyl acetate	10.0 - 10.0	10.0	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methyl-tert-butyl ether (MTBE)	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methylcyclohexane	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Methylene chloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	2,560	No	2,560	USEPA Region 4	NO	ND	10.0	-- / --	0.004
Styrene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Tetrachloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	45.0	No	45.0	USEPA Region 4	NO	ND	10.0	-- / --	0.22
Toluene	0.50 - 10.0	10.0	5.00	J	MR04-MW12-06A	UG/L	4 / 30	--	NA	37.0	No	37.0	USEPA Region 4	NO	BSL	5.00	0 / 30	0.14
Trichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Trichlorofluoromethane(Freon-11)	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Vinyl chloride	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
Xylene, total	10.0 - 10.0	10.0	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
cis-1,2-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV

TABLE 6-12
Selection of Chemicals of Potential Concern in Groundwater - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Maximum Concentration Detected	Maximum Qualifier	Sample ID of Maximum Detected Concentration	Units	Frequency of Detection	NC Water Quality Standard[1]	Exceed NCWQS?	USEPA Region 4 Screening Value[2]	Exceed USEPA Region 4?	Screening Value	Source of Screening Value	COPC Flag	Rational for Elimination or Selection	Concentration Used for Screening	Frequency of Exceedance	Maximum Hazard Quotient
cis-1,3-Dichloropropene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	7.90	Yes	7.90	USEPA Region 4	YES	DL	10.0	-- / --	1.27
m- and p-Xylene	0.50 - 0.50	0.50	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
o-Xylene	0.50 - 0.50	0.50	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	0.50	-- / --	NSV
trans-1,2-Dichloroethene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	--	NA	NSV	--	YES	NDNSL	10.0	-- / --	NSV
trans-1,3-Dichloropropene	0.50 - 10.0	10.0	--		--	UG/L	0 / 30	--	NA	7.90	Yes	7.90	USEPA Region 4	YES	DL	10.0	-- / --	1.27
Total Petroleum Hydrocarbons (UG/L)																		
Oil and Grease	1,100 - 5,900	5,900	7,200	J	MR04-MW14-06A	UG/L	1 / 15	--	NA	--	NA	NSV	--	YES	NSL	7,200	-- / --	NSV
TPH-diesel range	64.0 - 180	180	--		--	UG/L	0 / 15	--	NA	--	NA	NSV	--	YES	NDNSL	180	-- / --	NSV
TPH-gas range	100 - 100	100	47.0	J	MR04-MW02-06A	UG/L	3 / 15	--	NA	--	NA	NSV	--	YES	NSL	47.0	-- / --	NSV

1 - Based on US EPA's Region 4 Water Management Division, Water Quality Standards Unit's Screening List (2001)

2 - NC DENR, "North Carolina Surface Water Quality Standard for Aquatic Life." NC Administrative Code 15A NCAC 02B .0100 & .0200. April 2003

Rationale for Elimination/Selection:
ASL: Above Screening Levels (Category 1)
BSL: Below Screening Level (detections)
ND: Not Detected and Not above Screening Level
NDNSL: Not Detected and No Screening Level (Category 4)
NSL: No Screening Level (Category 3)
DL: Detection Limit is Above Screening Level (Category 2)
NCSWQS: Exceeds North Carolina Surface Water Quality Standard (Category 5)
EN - Essential Nutrient

Qualifier:
J: Estimated Value

ug/L: microgram per liter

TABLE 6-13
Summary of Hazard Quotients for Food Web Exposures - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Mink NOAEL	Great blue heron NOAEL
Inorganics		
Arsenic	0.02	<0.01
Cadmium	<0.01	<0.01
Chromium	0.01	0.05
Copper	0.08	0.03
Lead	0.05	0.13
Mercury	0.35	2.73
Nickel	0.01	<0.01
Selenium	0.96	0.14
Silver	0.02	<0.01
Zinc	0.03	0.06
Pesticides/PCBs		
4,4'-DDD	0.12	0.53
4,4'-DDE	0.66	2.93
4,4'-DDT	0.08	0.36
Aldrin	<0.01	<0.01
alpha-BHC	<0.01	<0.01
alpha-Chlordane	<0.01	<0.01
Aroclor-1016	0.11	0.14
Aroclor-1221	2.30	0.28
Aroclor-1232	1.13	0.14
Aroclor-1242	1.13	0.14
Aroclor-1248	1.11	0.14
Aroclor-1254	1.11	0.14
Aroclor-1260	1.11	0.14
beta-BHC	<0.01	<0.01
delta-BHC	<0.01	<0.01
Dieldrin	0.04	0.02
Endosulfan I	<0.01	<0.01
Endosulfan II	<0.01	<0.01
Endrin	<0.01	<0.01
gamma-BHC (Lindane)	<0.01	<0.01
gamma-Chlordane	<0.01	<0.01
Heptachlor	<0.01	<0.01
Heptachlor epoxide	<0.01	<0.01
Methoxychlor	<0.01	<0.01
Toxaphene	<0.01	0.08
Volatile and Semivolatile Organics		
1,1,2,2-Tetrachloroethane	<0.01	NA
1,2,4-Trichlorobenzene	<0.01	<0.01
1,2-Dichlorobenzene	<0.01	<0.01
1,3-Dichlorobenzene	<0.01	<0.01
1,4-Dichlorobenzene	<0.01	<0.01
4-Bromophenyl-phenylether	NA	NA
4-Chlorophenyl-phenylether	NA	NA
Acenaphthene	<0.01	0.02
Acenaphthylene	<0.01	0.02
Anthracene	<0.01	0.02

Shaded cells indicate HQ > 1

TABLE 6-13
Summary of Hazard Quotients for Food Web Exposures - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Mink	Great blue heron
	NOAEL	NOAEL
Benzo(a)anthracene	<0.01	<0.01
Benzo(a)pyrene	<0.01	<0.01
Benzo(b)fluoranthene	0.01	<0.01
Benzo(g,h,i)perylene	<0.01	<0.01
Benzo(k)fluoranthene	0.01	<0.01
Chrysene	<0.01	<0.01
Dibenz(a,h)anthracene	0.06	0.02
Fluoranthene	<0.01	<0.01
Fluorene	<0.01	0.02
Hexachlorobenzene	0.09	1.34
Hexachlorobutadiene	0.02	0.02
Hexachlorocyclopentadiene	<0.01	NA
Hexachloroethane	<0.01	NA
Indeno(1,2,3-cd)pyrene	<0.01	<0.01
Pentachlorophenol	0.06	0.10
Phenanthrene	<0.01	<0.01
Pyrene	0.02	<0.01

Shaded cells indicate HQ > 1

TABLE 6-14
Summary of Chemicals of Potential Concern - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Groundwater	Category	Surface Water	Category	Sediment	Category	Food Web
Inorganics							
Aluminum	X	3	X	3	X	3	
Antimony	X	4	X	3			
Barium	X	3	X	3	X	3	
Beryllium	X	3	X	3	X	3	
Cadmium			X	2,5			
Chromium	X	1,5					
Cobalt	X	3	X	3	X	3	
Copper			X	2,5	X	1	
Cyanide	X	2,5	X	2,5	X	4	
Iron	X	3	X	3	X	3	
Lead			X	1	X	1	
Manganese	X	3	X	3	X	3	
Mercury	X	1,5	X	2,5	X	1	X
Nickel	X	1,5	X	2,5			
Selenium					X	3	
Silver	X	1,5	X	1,5	X	2	
Thallium					X	4	
Vanadium	X	3	X	3	X	3	
Pesticide/Polychlorinated Biphenyls							
4,4'-DDD	X	2			X	1	
4,4'-DDE	X	2			X	1	X
4,4'-DDT	X	2,5	X	2,5	X	1	
Aldrin	X	2,5	X	2,5	X	3	
Aroclor-1016	X	2,5	X	2,5	X	2	
Aroclor-1221	X	2,5	X	2,5	X	2	X
Aroclor-1232	X	2,5	X	2,5	X	2	X
Aroclor-1242	X	2,5	X	2,5	X	2	X
Aroclor-1248	X	2,5	X	2,5	X	2	X
Aroclor-1254	X	2,5	X	2,5	X	2	X
Aroclor-1260	X	2,5	X	2,5	X	2	X
Aroclor-1262	X	2,5	X	2,5	NS	--	
Aroclor-1268	X	2,5	X	2,5	NS	--	
Dieldrin	X	2,5	X	1,5	X	1	
Endosulfan I	X	2,5	X	2,5	X	4	
Endosulfan II	X	2	X	2	X	4	
Endosulfan sulfate	X	4	X	4	X	3	
Endrin	X	2,5	X	2,5	X	1	
Endrin aldehyde	X	4	X	3	X	4	
Endrin ketone	X	4	X	4	X	3	
Heptachlor	X	2,5	X	1,5	X	4	
Heptachlor epoxide	X	1	X	2	X	4	
Methoxychlor	X	2,5	X	2,5	X	4	
Toxaphene	X	2,5	X	2,5	X	4	
alpha-BHC					X	4	
alpha-Chlordane	X	2,5	X	2,5	X	1	
beta-BHC	X	3	X	3	X	4	
delta-BHC	X	4	X	3	X	4	
gamma-BHC (Lindane)	X	2,5	X	2,5	X	2	
gamma-Chlordane	X	2,5	X	2,5	X	1	

TABLE 6-14
Summary of Chemicals of Potential Concern - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Groundwater	Category	Surface Water	Category	Sediment	Category	Food Web
Semivolatile Organic Compounds							
1,1-Biphenyl	X	4	X	4	X	4	
1,2,4,5-Tetrachlorobenzene	X	4	X	4	NS	--	
2,2'-Oxybis(1-chloropropane)	X	4	X	4	X	4	
2,3,4,6-Tetrachlorophenol	X	4	X	4	NS	--	
2,4,5-Trichlorophenol	X	4	X	4	X	4	
2,4,6-Trichlorophenol	X	4	X	4	X	4	
2,4-Dichlorophenol	X	4	X	4	X	4	
2,4-Dimethylphenol	X	4	X	4	X	4	
2,4-Dinitrophenol					X	4	
2,4-Dinitrotoluene	X	4	X	4	X	4	
2,6-Dinitrotoluene	X	4	X	4	X	4	
2-Chloronaphthalene	X	4	X	4	X	4	
2-Chlorophenol	X	4	X	4	X	4	
2-Methylnaphthalene	X	4	X	4	X	2	
2-Methylphenol	X	4	X	4	X	4	
2-Nitroaniline	X	4	X	4	X	4	
2-Nitrophenol	X	4	X	4	X	4	
3,3'-Dichlorobenzidine	X	4	X	4	X	4	
3-Nitroaniline	X	4	X	4	X	4	
4,6-Dinitro-2-methylphenol	X	4	X	4	X	4	
4-Bromophenyl-phenylether	X	4	X	4	X	4	
4-Chloro-3-methylphenol	X	4	X	4	X	4	
4-Chloroaniline	X	4	X	4	X	4	
4-Chlorophenyl-phenylether	X	4	X	4	X	4	
4-Methylphenol	X	3	X	4	X	3	
4-Nitroaniline	X	4	X	4	X	4	
4-Nitrophenol					X	4	
Acenaphthene	X	2	X	2	X	2	
Acenaphthylene	X	4	X	4	X	2	
Acetophenone	X	3	X	4	X	3	
Anthracene	X	4	X	4	X	2	
Atrazine	X	4	X	4	X	4	
Benzaldehyde	X	4	X	4	X	3	
Benzo(a)anthracene	X	4	X	4			
Benzo(a)pyrene	X	4	X	4	X	1	
Benzo(b)fluoranthene	X	4	X	4	X	3	
Benzo(g,h,i)perylene	X	4	X	4	X	3	
Benzo(k)fluoranthene	X	4	X	4	X	3	
Butylbenzylphthalate					X	3	
Caprolactam	X	4	X	4	X	4	
Carbazole	X	4	X	4	X	4	
Chrysene	X	4	X	4	X	1	
Di-n-butylphthalate			X	2	X	4	
Di-n-octylphthalate	X	4	X	4	X	4	
Dibenz(a,h)anthracene	X	4	X	4	X	2	
Dibenzofuran	X	4	X	4	X	4	
Diethylphthalate					X	4	
Dimethyl phthalate					X	4	
Fluoranthene	X	2	X	2	X	1	
Fluorene	X	4	X	4	X	2	
Hexachlorobenzene	X	4	X	4	X	4	X
Hexachlorobutadiene	X	2	X	2	X	4	
Hexachlorocyclopentadiene	X	2	X	2	X	4	
Hexachloroethane	X	2	X	2	X	4	

TABLE 6-14
Summary of Chemicals of Potential Concern - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Groundwater	Category	Surface Water	Category	Sediment	Category	Food Web
Indeno(1,2,3-cd)pyrene	X	4	X	4	X	3	
Isophorone					X	4	
Naphthalene					X	2	
Nitrobenzene					X	4	
Pentachlorophenol	X	2	X	2	X	4	
Phenanthrene	X	4	X	4			
Phenol					X	4	
Pyrene	X	4	X	4	X	1	
bis(2-Chloroethoxy)methane	X	4	X	4	X	4	
bis(2-Chloroethyl)ether	X	4	X	4	X	4	
bis(2-Ethylhexyl)phthalate	X	3	X	3	X	1	
n-Nitroso-di-n-propylamine	X	4	X	4	X	4	
n-Nitrosodiphenylamine					X	4	
Explosives							
1,3,5-Trinitrobenzene	X	4	X	4	X	4	
1,3-Dinitrobenzene	X	4	X	4	X	4	
2,4,6-Trinitrotoluene	X	3	X	4	X	4	
2,4-Dinitrotoluene	X	3	X	4	X	4	
2,6-Dinitrotoluene	X	3	X	4	X	4	
2-Amino-4,6-dinitrotoluene	X	4	X	4	X	4	
2-Nitrotoluene	X	4	X	4	X	4	
3-Nitrotoluene	X	4	X	4	X	4	
4-Amino-2,6-dinitrotoluene	X	4	X	4	X	4	
4-Nitrotoluene	X	3	X	4	X	4	
HMX	X	4	X	4	X	4	
Nitrobenzene					X	3	
Perchlorate	X	3	X	4	X	4	
RDX	X	4	X	4	X	4	
Tetryl	X	4	X	4	X	4	
Volatile Organic Compounds							
1,1,1-Trichloroethane					X	4	
1,1,2,2-Tetrachloroethane					X	4	
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	X	4	X	4	X	4	
1,1,2-Trichloroethane	X	4	X	4	X	4	
1,1-Dichloroethane	X	4	X	4	X	4	
1,1-Dichloroethene					X	4	
1,2,3-Trichlorobenzene	X	4	X	4	NS	--	
1,2,4-Trichlorobenzene	X	2	X	2	X	4	
1,2-Dibromo-3-chloropropane	X	4	X	4	X	4	
1,2-Dibromoethane	X	4	X	4	X	4	
1,2-Dichlorobenzene					X	4	
1,2-Dichloroethane					X	4	
1,2-Dichloropropane					X	4	
1,3-Dichlorobenzene					X	4	
1,4-Dichlorobenzene					X	4	
2-Butanone	X	4	X	4	X	3	
2-Hexanone	X	4	X	4	X	4	
4-Methyl-2-pentanone	X	4	X	4	X	4	
Acetone	X	3	X	4	X	3	
Benzene					X	4	
Bromochloromethane	X	4	X	4	NS	--	
Bromodichloromethane	X	4	X	4	X	4	
Bromoform					X	4	
Bromomethane					X	4	
Carbon disulfide	X	4	X	3	X	3	

TABLE 6-14
Summary of Chemicals of Potential Concern - Step 2
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Groundwater	Category	Surface Water	Category	Sediment	Category	Food Web
Carbon tetrachloride					X	4	
Chlorobenzene					X	4	
Chloroethane	X	4	X	4	X	4	
Chloroform					X	4	
Chloromethane					X	4	
Cyclohexane	X	4	X	4	X	4	
Dibromochloromethane	X	4	X	4	X	4	
Dichlorodifluoromethane (Freon-12)	X	4	X	4	X	4	
Ethylbenzene	X	2	X	3	X	4	
Isopropylbenzene	X	4	X	4	X	4	
Methyl acetate	X	4	X	4	X	3	
Methyl-tert-butyl ether (MTBE)	X	4	X	4	X	4	
Methylcyclohexane	X	4	X	4	X	4	
Methylene chloride					X	4	
Styrene	X	4	X	4	X	4	
Tetrachloroethene					X	4	
Toluene					X	4	
Trichloroethene	X	4	X	4	X	4	
Trichlorofluoromethane(Freon-11)	X	4	X	4	X	4	
Vinyl chloride	X	4	X	4	X	4	
Xylene, total	X	4	X	4	X	4	
cis-1,2-Dichloroethene	X	4	X	4	X	4	
cis-1,3-Dichloropropene	X	2	X	3	X	4	
m- and p-Xylene	X	4	X	4	NS	--	
o-Xylene	X	4	X	4	NS	--	
trans-1,2-Dichloroethene	X	4	X	4	X	4	
trans-1,3-Dichloropropene	X	2	X	3	X	4	
Total Petroleum Hydrocarbons							
Oil and Grease	X	3	X	3	X	3	
TPH-diesel range	X	4	X	4	X	3	
TPH-gas range	X	3	X	3	X	4	

NS - Not sampled

TABLE 6-15
Sediment Bioaccumulation Factors For Fish - Step 3A
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Sediment-Fish BAF (dry weight)	
	Value	Reference
Inorganics		
Mercury	3.25	Cope et al., 1990
Pesticides/PCBs		
4,4'-DDE	26.2	Oliver and Niimi, 1988
Aroclor-1221	12.9	Oliver and Niimi, 1988
Aroclor-1232	12.9	Oliver and Niimi, 1988
Aroclor-1242	12.9	Oliver and Niimi, 1988
Aroclor-1248	12.9	Oliver and Niimi, 1988
Aroclor-1254	12.9	Oliver and Niimi, 1988
Aroclor-1260	12.9	Oliver and Niimi, 1988
Semivolatile Organics		
Hexachlorobenzene	0.940	Oliver and Niimi, 1988

TABLE 6-16
Exposure Parameters for Upper Trophic Level Ecological Receptors - Step 3A
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Receptor	Body Weight (kg)		Food Ingestion Rate (kg/day - dry)		Dietary Composition (percent)				Sediment Ingestion (percent)	
	Value	Reference	Value	Reference	Fish	Aquatic Plants	Benthic Invertebrates	Reference	Value	Reference
Birds										
Great blue heron	2.23	Quinney, 1982	0.1254	allometric equation (Nagy, 2001 - all birds)	100	0	0	USEPA, 1993a; Quinney and Smith, 1980	0	Sample and Suter, 1994
Mammals										
Mink	0.777	Silva and Downing, 1995	0.0266	USEPA, 1993a	100	0	0	USEPA, 1993a	0	Sample and Suter, 1994

TABLE 6-17
Step 3A - Screening of Categories 3 and 4 Surface Water COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
Inorganics (UG/L)											
Aluminum	200 - 200	200	15 / 17	7,150	MR04-SW04-06A	271	USEPA, 1999	YES	AAV	13 / 17	26.4
Antimony	3.20 - 20.0	20	1 / 17	2.60	MR04-SW02-07C	500	Buchman, 1999	NO	BAV	0 / 17	0.01
Barium	50.0 - 200	200	6 / 17	76.6	MR04-SW02-07C	25,000	Derived using LC50[1]	NO	BAV	0 / 17	0.003
Beryllium	0.20 - 5.00	5	4 / 17	0.37	MR04-SW04-06A	0.66	USEPA, 1999	NO	BAV	0 / 17	0.56
Cobalt	0.90 - 10.0	10	3 / 17	4.40	MR04-SW06-07C	8.10	Derived using LC50*	NO	BAV	0 / 17	0.54
Iron	-- - --	--	17 / 17	4,970	MR04-SW04-06A	665	Derived using LC50	YES	AAV	9 / 17	7.47
Manganese	15.0 - 15.0	15	15 / 17	112	MR04-SW05-06A	120	Suter and Tsao, 1996*	NO	BAV	0 / 17	0.93
Vanadium	0.90 - 50.0	50	10 / 17	25.6	MR04-SW03-07C	62.0	Derived using LC50	NO	BAV	0 / 17	0.41
Dissolved Metals (UG/L)											
Aluminum	-- - --	--	7 / 7	1,500	MR04-SW06-07C	271	USEPA, 1999	YES	AAV	5 / 7	5.54
Antimony	10.0 - 20.0	20	0 / 7	--	--	500	Buchman, 1999	NO	ND	-- / --	0.04
Barium	50.0 - 50.0	50	5 / 7	51.4	MR04-SW02-07C	25,000	Derived using LC50	NO	BAV	0 / 7	0.002
Beryllium	5.00 - 5.00	5	0 / 7	--	--	0.66	USEPA, 1999	NO	see Uncertainties	-- / --	7.58
Cobalt	10.0 - 10.0	10	4 / 7	4.20	MR04-SW06-07C	8.10	Derived using LC50*	NO	BAV	0 / 7	0.52
Iron	-- - --	--	7 / 7	718	MR04-SW02-07C	665	Derived using LC50	YES	AAV	2 / 7	1.08
Manganese	-- - --	--	7 / 7	37.7	MR04-SW01-07C	120	Suter and Tsao, 1996*	NO	BAV	0 / 17	0.31
Vanadium	25.0 - 50.0	50	1 / 7	4.70	MR04-SW05-07C	62.0	Derived using LC50	NO	BAV	0 / 7	0.08
Pesticide/Polychlorinated Biphenyls (UG/L)											
Endosulfan sulfate	0.02 - 0.13	0.13	0 / 17	--	--	0.009	TCEQ, 2005 (endosulfan I)	NO	see Uncertainties	-- / --	14.4
Endrin aldehyde	0.02 - 0.13	0.13	1 / 17	0.040	MR04-SW01-06A	0.01	USEPA, 1996b (endrin)	YES	AAV	1 / 17	4.00
Endrin ketone	0.02 - 0.13	0.13	0 / 17	--	--	0.01	USEPA, 1996b (endrin)	NO	see Uncertainties	-- / --	NSV
beta-BHC	0.01 - 0.06	0.06	2 / 17	0.011	MR04-SW08-07C	25.0	TCEQ, 2005 (alpha-BHC)	NO	BAV	0 / 17	0.0004
delta-BHC	0.01 - 0.06	0.06	1 / 17	0.018	MR04-SW08-07C	25.0	TCEQ, 2005 (alpha-BHC)	NO	BAV	0 / 17	0.001
Semivolatile Organic Compounds (UG/L)											
1,1-Biphenyl	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,2,4,5-Tetrachlorobenzene	5.10 - 5.40	5.4	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,3,4,6-Tetrachlorophenol	5.10 - 5.40	5.4	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,5-Trichlorophenol	5.10 - 35.0	35	0 / 17	--	--	12.0	TCEQ, 2005	NO	see Uncertainties	-- / --	2.92
2,4,6-Trichlorophenol	5.10 - 14.0	14	0 / 17	--	--	61.0	TCEQ, 2005	NO	ND	-- / --	0.23
2,4-Dichlorophenol	5.10 - 14.0	14	0 / 17	--	--	257	Derived using LC50	NO	ND	-- / --	0.05
2,4-Dimethylphenol	5.10 - 14.0	14	0 / 17	--	--	132,000	Derived using LC50	NO	ND	-- / --	0.0001
2,4-Dinitrotoluene	5.10 - 5.40	5.4	0 / 7	--	--	2,430	Derived using LC50*	NO	ND	-- / --	0.002
2,6-Dinitrotoluene	5.10 - 5.40	5.4	0 / 7	--	--	1,850	Derived using LC50*	NO	ND	-- / --	0.003
2-Chloronaphthalene	5.10 - 14.0	14	0 / 17	--	--	233	Derived using LC50	NO	ND	-- / --	0.06
2-Chlorophenol	5.10 - 14.0	14	0 / 17	--	--	265	TCEQ, 2005	NO	ND	-- / --	0.05
2-Methylnaphthalene	5.10 - 14.0	14	0 / 17	--	--	30.0	TCEQ, 2005	NO	ND	-- / --	0.47
2-Methylphenol	5.10 - 14.0	14	0 / 17	--	--	510	TCEQ, 2005	NO	ND	-- / --	0.03
2-Nitroaniline	10.0 - 35.0	35	0 / 17	--	--	973	Derived using LC50*	NO	ND	-- / --	0.04
2-Nitrophenol	5.10 - 14.0	14	0 / 17	--	--	1,470	TCEQ, 2005	NO	ND	-- / --	0.01
3,3'-Dichlorobenzidine	5.10 - 14.0	14	0 / 17	--	--	37.0	TCEQ, 2005	NO	ND	-- / --	0.38
3-Nitroaniline	10.0 - 35.0	35	0 / 17	--	--	8,120	Derived using LC50*	NO	ND	-- / --	0.004
4,6-Dinitro-2-methylphenol	10.0 - 35.0	35	0 / 17	--	--	77.0	Derived using LC50*	NO	ND	-- / --	0.45
4-Bromophenyl-phenylether	5.10 - 14.0	14	0 / 17	--	--	590	Derived using LC50*	NO	ND	-- / --	0.02
4-Chloro-3-methylphenol	5.10 - 14.0	14	0 / 17	--	--	203	Derived using LC50*	NO	ND	-- / --	0.07

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-17
Step 3A - Screening of Categories 3 and 4 Surface Water COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
4-Chloroaniline	5.10 - 14.0	14	0 / 17	--	--	625	Derived using LC50	NO	ND	-- / --	0.02
4-Chlorophenyl-phenylether	5.10 - 14.0	14	0 / 17	--	--	36.5	TCEQ, 2005	NO	ND	-- / --	0.38
4-Methylphenol	5.10 - 14.0	14	0 / 17	--	--	510	TCEQ, 2005 (2-methylphenol)	NO	ND	-- / --	0.03
4-Nitroaniline	10.0 - 35.0	35	0 / 17	--	--	3,500	Derived using LC50*	NO	ND	-- / --	0.01
Acenaphthylene	5.10 - 14.0	14	0 / 17	--	--	307	USEPA, 2000	NO	ND	-- / --	0.05
Acetophenone	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Anthracene	5.10 - 14.0	14	0 / 17	--	--	0.18	TCEQ, 2005	NO	see Uncertainties	-- / --	77.8
Atrazine	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Benzaldehyde	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Benzo(a)anthracene	5.10 - 14.0	14	0 / 17	--	--	2.20	USEPA, 2000	NO	see Uncertainties	-- / --	6.36
Benzo(a)pyrene	5.10 - 14.0	14	0 / 17	--	--	0.96	USEPA, 2000	NO	see Uncertainties	-- / --	14.6
Benzo(b)fluoranthene	5.10 - 14.0	14	0 / 17	--	--	0.68	USEPA, 2000	NO	see Uncertainties	-- / --	20.6
Benzo(g,h,i)perylene	5.10 - 14.0	14	0 / 17	--	--	0.44	USEPA, 2000	NO	see Uncertainties	-- / --	31.8
Benzo(k)fluoranthene	5.10 - 14.0	14	0 / 17	--	--	0.64	USEPA, 2000	NO	see Uncertainties	-- / --	21.9
Caprolactam	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Carbazole	5.10 - 14.0	14	0 / 17	--	--	93.0	TCEQ, 2005	NO	ND	-- / --	0.15
Chrysene	5.10 - 14.0	14	0 / 17	--	--	2.00	USEPA, 2000	NO	see Uncertainties	-- / --	7.00
Di-n-octylphthalate	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibenz(a,h)anthracene	5.10 - 14.0	14	0 / 17	--	--	0.96	benzo(a)pyrene used as surrogate	NO	see Uncertainties	-- / --	14.6
Dibenzofuran	5.10 - 14.0	14	0 / 17	--	--	65.0	TCEQ, 2005	NO	ND	-- / --	0.22
Fluorene	5.10 - 14.0	14	0 / 17	--	--	50.0	TCEQ, 2005	NO	ND	-- / --	0.28
Hexachlorobenzene	5.10 - 14.0	14	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Indeno(1,2,3-cd)pyrene	5.10 - 14.0	14	0 / 17	--	--	0.28	USEPA, 2000	NO	see Uncertainties	-- / --	50.0
Phenanthrene	5.10 - 14.0	14	0 / 17	--	--	4.60	TCEQ, 2005	NO	see Uncertainties	-- / --	3.04
Pyrene	5.10 - 14.0	14	0 / 17	--	--	0.24	TCEQ, 2005	NO	see Uncertainties	-- / --	58.3
bis(2-Chloroethoxy)methane	5.10 - 14.0	14	0 / 17	--	--	1,840	Derived using LC50*	NO	ND	-- / --	0.01
bis(2-Chloroethyl)ether	5.10 - 14.0	14	0 / 17	--	--	30,000	Derived using LC50*	NO	ND	-- / --	0.0005
bis(2-Ethylhexyl)phthalate	5.10 - 12.0	12	9 / 17	16.0	MR04-SW07-06A	360	Buchman, 1999	NO	BAV	0 / 17	0.04
n-Nitroso-di-n-propylamine	5.10 - 14.0	14	0 / 17	--	--	120	TCEQ, 2005	NO	ND	-- / --	0.12
Explosives (UG/L)											
1,3,5-Trinitrobenzene	0.25 - 0.26	0.26	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,3-Dinitrobenzene	0.25 - 0.26	0.26	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,6-Trinitrotoluene	0.25 - 0.26	0.26	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4-Dinitrotoluene	0.25 - 0.26	0.26	0 / 17	--	--	2,430	Derived using LC50*	NO	ND	-- / --	0.0001
2,6-Dinitrotoluene	0.25 - 0.26	0.26	0 / 17	--	--	1,850	Derived using LC50*	NO	ND	-- / --	0.0001
2-Amino-4,6-dinitrotoluene	0.25 - 0.26	0.26	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2-Nitrotoluene	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
3-Nitrotoluene	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Amino-2,6-dinitrotoluene	0.25 - 0.26	0.26	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Nitrotoluene	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
HMX	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Perchlorate	1.00 - 50.0	50	0 / 10	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
RDX	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Tetryl	0.25 - 0.52	0.52	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Volatile Organic Compounds (UG/L)											
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-17
Step 3A - Screening of Categories 3 and 4 Surface Water COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
1,1,2-Trichloroethane	0.50 - 10.0	10	0 / 17	--	--	275	TCEQ, 2005	NO	ND	-- / --	0.04
1,1-Dichloroethane	0.50 - 10.0	10	0 / 17	--	--	5,650	TCEQ, 2005 (1,2-dichloroethane)	NO	ND	-- / --	0.002
1,2,3-Trichlorobenzene	0.50 - 0.50	0.5	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,2-Dibromo-3-chloropropane	0.50 - 10.0	10	0 / 17	--	--	78.0	Derived using LC50	NO	ND	-- / --	0.13
1,2-Dibromoethane	0.50 - 10.0	10	0 / 17	--	--	5,800	Benville et al., 1985	NO	ND	-- / --	0.002
2-Butanone	10.0 - 10.0	10	0 / 10	--	--	40,000	Derived using LC50	NO	ND	-- / --	0.0003
2-Hexanone	5.00 - 10.0	10	0 / 17	--	--	42,800	Derived using LC50*	NO	ND	-- / --	0.0002
4-Methyl-2-pentanone	5.00 - 10.0	10	0 / 17	--	--	61,500	TCEQ, 2005	NO	ND	-- / --	0.0002
Acetone	10.0 - 10.0	10	0 / 10	--	--	282,000	TCEQ, 2005	NO	ND	-- / --	0.00004
Bromochloromethane	0.50 - 0.50	0.5	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Bromodichloromethane	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Carbon disulfide	0.50 - 10.0	10	4 / 17	1.40	MR04-SW08-07C	6,500	Derived using LC50	NO	BAV	0 / 17	0.0002
Chloroethane	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Cyclohexane	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibromochloromethane	0.50 - 10.0	10	0 / 17	--	--	3,400	Derived using LC50*	NO	ND	-- / --	0.003
Dichlorodifluoromethane (Freon-12)	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Ethylbenzene	0.50 - 10.0	10	0 / 17	--	--	249	TCEQ, 2005	NO	ND	-- / --	0.04
Isopropylbenzene	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Methyl acetate	10.0 - 10.0	10	0 / 10	--	--	32,000	Derived using LC50*	NO	ND	-- / --	0.0003
Methyl-tert-butyl ether (MTBE)	0.50 - 10.0	10	0 / 17	--	--	67,200	Derived using LC50*	NO	ND	-- / --	0.0001
Methylcyclohexane	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Styrene	0.50 - 10.0	10	0 / 17	--	--	455	TCEQ, 2005	NO	ND	-- / --	0.02
Trichloroethene	0.50 - 10.0	10	0 / 17	--	--	970	TCEQ, 2005	NO	ND	-- / --	0.01
Trichlorofluoromethane(Freon-11)	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Vinyl chloride	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Xylene, total	10.0 - 10.0	10	0 / 10	--	--	850	TCEQ, 2005	NO	ND	-- / --	0.01
cis-1,2-Dichloroethene	0.50 - 10.0	10	0 / 17	--	--	680	TCEQ, 2005 (mixed isomers)	NO	ND	-- / --	0.01
cis-1,3-Dichloropropene	0.50 - 10.0	10	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
m-Xylene	0.50 - 0.50	0.5	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
p-Xylene	0.50 - 0.50	0.5	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
o-Xylene	0.50 - 0.50	0.5	0 / 7	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
trans-1,2-Dichloroethene	0.50 - 10.0	10	0 / 17	--	--	680	TCEQ, 2005 (mixed isomers)	NO	ND	-- / --	0.01
trans-1,3-Dichloropropene	0.50 - 10.0	10	0 / 17	--	--	40.0	TCEQ, 2005	NO	ND	-- / --	0.25
Total Petroleum Hydrocarbons (UG/L)											
Oil and Grease	5,400 - 5,900	5900	1 / 10	11,000	MR04-SW02-06A	NSV	--	YES	NAV	-- / --	NSV
TPH-diesel range	92.0 - 180	180	0 / 10	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
TPH-gas range	34.0 - 100	100	2 / 10	29.0	MR04-SW08-06A	NSV	--	YES	NAV	-- / --	NSV

COPC: Chemical of Potential Concern
µg/L: micrograms per liter
[1] LC50: lethal concentration to 50% of tested organisms (see Appendix I-2)
* Saltwater value not available; freshwater value is used

Rationale for Elimination/Selection:
BAV: Below Alternate Value (detections)
AAV: Above Alternate Value
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-18
Step 3A - Refined Screening of Surface Water COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL_Range	Maximum DL	Maximum Concentration Detected	Supplmental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Groundwater?	COPC in Sediment?	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Inorganics (UG/L)																
Aluminum	15 / 17	200 - 200	200	7,150	271	USEPA, 1999	13 / 17	26.4	1,401	5.17	No	Yes	No	YES	No	See text
Cadmium	0 / 17	0.40 - 10.0	10	--	8.85	USEPA, 2006a	-- / --	1.13	1.88	0.21	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Copper	0 / 17	0.70 - 125	125	--	3.70	USEPA, 2006a	-- / --	33.8	20.6	5.58	Yes	No	No	NO	--	see Uncertainties
Cyanide	0 / 17	5.00 - 10.0	10	--	1.00	USEPA, 2006a	-- / --	10.0	3.53	3.53	No	No	No	NO	--	see Uncertainties
Iron	17 / 17	-- - --	--	4,970	665	Derived using LC50[1]	9 / 17	7.47	1,281	1.93	No	No	No	NO	--	See dissolved iron
Lead	8 / 17	2.00 - 10.0	10	12.6	8.50	USEPA, 2006a	1 / 17	1.48	3.09	0.36	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
Mercury	0 / 17	0.10 - 0.20	0.20	--	1.10	USEPA, 2006a	-- / --	0.18	0.071	0.06	Yes	No	No	NO	--	Max HQ<1, FOD=0%
Nickel	2 / 17	1.40 - 25.0	25	2.70	8.30	USEPA, 2006a	0 / 17	0.33	--	--	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Silver	2 / 17	0.70 - 10.0	10	0.25	0.23	USEPA, 2001	2 / 17	1.09	--	--	Yes	Yes	No	NO	--	See dissolved silver
Dissolved Metals (UG/L)																
Aluminum	7 / 7	-- - --	--	1,500	271	USEPA, 1999	5 / 7	5.54	761	2.81	No	Yes	No	YES	No	See text
Cadmium	0 / 7	5.00 - 10.0	10	--	8.80	USEPA, 2006a	-- / --	1.14	4.29	0.49	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Copper	0 / 7	50.0 - 125	125	--	3.10	USEPA, 2006a	-- / --	40.3	35.7	11.5	Yes	No	No	NO	--	see Uncertainties
Iron	7 / 7	-- - --	--	718	665	Derived using LC50	2 / 7	1.08	418	0.63	No	No	No	NO	--	Mean HQ<1, Not COPC in other media
Lead	3 / 7	5.00 - 10.0	10	2.10	8.10	USEPA, 2006a	0 / 7	0.26	--	--	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Mercury	0 / 7	0.20 - 0.20	0.2	--	0.94	USEPA, 2006a	-- / --	0.21	0.10	0.11	Yes	No	No	NO	--	Max HQ<1, FOD=0%, Not COPC in other media
Nickel	0 / 7	10.0 - 25.0	25	--	8.20	USEPA, 2006a	-- / --	3.05	7.14	0.87	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Silver	2 / 7	10.0 - 10.0	10	0.20	0.23	USEPA, 2001	0 / 7	0.87	--	--	Yes	Yes	No	NO	--	Max HQ<1, Not COPC in other media
Pesticide/Polychlorinated Biphenyls (UG/L)																
4,4'-DDT	0 / 17	0.02 - 0.13	0.13	--	0.001	USEPA, 2006a	-- / --	130	0.04	40.0	Yes	No	Yes	NO	--	see Uncertainties
Aldrin	0 / 17	0.01 - 0.06	0.06	--	0.13	USEPA, 2001	-- / --	0.46	0.02	0.15	Yes	No	No	NO	--	Max HQ<1, FOD=0%, Not COPC in other media
Aroclor-1016	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1221	0 / 17	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.75	25.0	Yes	No	No	NO	--	see Uncertainties
Aroclor-1232	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1242	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1248	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1254	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1260	0 / 17	0.19 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.40	13.3	Yes	No	No	NO	--	see Uncertainties
Aroclor-1262	0 / 7	0.19 - 0.24	0.24	--	0.03	USEPA, 2006a	-- / --	8.00	0.11	3.52	Yes	No	No	NO	--	see Uncertainties
Aroclor-1268	0 / 7	0.19 - 0.24	0.24	--	0.03	USEPA, 2006a	-- / --	8.00	0.11	3.52	Yes	No	No	NO	--	see Uncertainties
Dieldrin	3 / 17	0.02 - 0.13	0.13	0.040	0.11	USEPA, 1996b (FCV)	0 / 17	0.36	0.037	0.34	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Endosulfan I	0 / 17	0.01 - 0.06	0.06	--	0.0087	USEPA, 2006a	-- / --	6.90	0.02	2.28	Yes	No	No	NO	--	see Uncertainties
Endosulfan II	0 / 17	0.02 - 0.13	0.13	--	0.0087	USEPA, 2006a	-- / --	14.9	0.04	4.60	Yes	No	No	NO	--	see Uncertainties
Endrin	0 / 17	0.02 - 0.13	0.13	--	0.01	USEPA, 1996b (FCV)	-- / --	13.0	0.04	4.00	Yes	No	No	NO	--	see Uncertainties
Endrin aldehyde	1 / 17	0.02 - 0.13	0.13	0.040	0.01	USEPA, 1996b (endrin)	1 / 17	4.00	0.039	3.88	Yes	No	No	YES	No	see text
Heptachlor	2 / 17	0.01 - 0.06	0.06	0.014	0.0036	USEPA, 2006a	2 / 17	3.89	--	--	Yes	No	No	YES	No	see text
Heptachlor epoxide	0 / 17	0.01 - 0.20	0.2	--	0.0036	USEPA, 2006a	-- / --	55.6	0.034	9.44	Yes	Yes	No	NO	--	see Uncertainties
Methoxychlor	0 / 17	0.10 - 0.63	0.63	--	0.03	USEPA, 2006a	-- / --	21.0	0.20	6.62	Yes	No	No	NO	--	see Uncertainties
Toxaphene	0 / 17	1.00 - 6.30	6.3	--	0.21	USEPA, 1996b (FCV)	-- / --	30.0	1.99	9.45	Yes	No	No	NO	--	see Uncertainties
alpha-Chlordane	0 / 17	0.01 - 0.06	0.06	--	0.004	USEPA, 2006a	-- / --	15.0	0.02	4.96	Yes	No	No	NO	--	see Uncertainties
gamma-BHC (Lindane)	0 / 17	0.01 - 0.06	0.06	--	0.016	USEPA, 2001	-- / --	3.75	0.02	1.24	Yes	No	No	NO	--	see Uncertainties
gamma-Chlordane	0 / 17	0.01 - 0.06	0.06	--	0.004	USEPA, 2006a	-- / --	15.0	0.02	4.96	Yes	No	No	NO	--	see Uncertainties

TABLE 6-18
Step 3A - Refined Screening of Surface Water COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL_Range	Maximum DL	Maximum Concentration Detected	Supplmental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Groundwater?	COPC in Sediment?	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Semivolatile Organic Compounds (UG/L)																
Acenaphthene	0 / 17	5.10 - 14.0	14	--	9.70	USEPA, 2001	-- / --	1.44	4.71	0.49	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Di-n-butylphthalate	0 / 17	5.10 - 14.0	14	--	3.40	USEPA, 2001	-- / --	4.12	4.71	1.39	No	No	No	NO	--	see Uncertainties
Fluoranthene	0 / 17	5.10 - 14.0	14	--	1.60	USEPA, 2001	-- / --	8.75	4.71	2.95	Yes	No	No	NO	--	see Uncertainties
Hexachlorobutadiene	0 / 17	5.10 - 14.0	14	--	0.32	USEPA, 2001	-- / --	43.8	4.71	14.7	Yes	No	No	NO	--	see Uncertainties
Hexachlorocyclopentadiene	0 / 17	5.10 - 14.0	14	--	0.07	USEPA, 2001	-- / --	200	4.71	67.4	Yes	No	No	NO	--	see Uncertainties
Hexachloroethane	0 / 17	5.10 - 14.0	14	--	9.40	USEPA, 2001	-- / --	1.49	4.71	0.50	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Pentachlorophenol	0 / 17	10.0 - 35.0	35	--	7.90	USEPA, 2006a	-- / --	4.43	11.2	1.42	Yes	No	No	NO	--	see Uncertainties
Volatile Organic Compounds (UG/L)																
1,2,4-Trichlorobenzene	0 / 17	0.50 - 10.0	10	--	4.50	USEPA, 2001	-- / --	2.22	3.04	0.68	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Total Petroleum Hydrocarbons (UG/L)																
Oil and Grease	1 / 10	5,400 - 5,900	5900	11,000	NSV	--	-- / --	NSV	3,665	NSV	No	No	No	YES	No	see text
TPH-gas range	2 / 10	34.0 - 100	100	29.0	NSV	--	-- / --	NSV	42.1	NSV	No	No	No	YES	No	see text

COPC: Chemical of Potential Concern
µg/L: micrograms per liter
[1] LC50: lethal concentration to 50% of tested organisms (see Appendix I-2)
* Saltwater value not available; freshwater value is used

Rationale for Elimination/Selection:
BAV: Below Alternate Value (detections)
AAV: Above Alternate Value
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

TABLE 6-19
Step 3A - Screening of Categories 3 and 4 Sediment COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
Inorganics (MG/KG)											
Aluminum	-- - --	--	17 / 17	17,500	MR04-SD02-07C	18,000	Buchman, 1999	NO	BAV	0 / 17	0.97
Barium	34.7 - 208	208	10 / 17	60.3	MR04-SD02-06A	48.0	Buchman, 1999	YES	AAV	1 / 17	1.26
Beryllium	0.50 - 5.20	5.20	8 / 17	0.48	MR04-SD02-07C	NSV	--	YES	NAV	-- / --	NSV
Cobalt	0.14 - 5.00	5.00	8 / 17	1.60	MR04-SD08-07C	10.0	Buchman, 1999	NO	BAV	0 / 17	0.16
Cyanide	0.18 - 15.3	15.3	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Iron	-- - --	--	17 / 17	11,800	MR04-SD01-06A	220,000	Buchman, 1999	NO	BAV	0 / 17	0.05
Manganese	1.50 - 1.50	1.50	16 / 17	20.7	MR04-SD06-06A	260	Buchman, 1999	NO	BAV	0 / 17	0.08
Selenium	0.42 - 16.2	16.2	6 / 17	4.00	MR04-SD06-06A	1.00	Buchman, 1999	YES	AAV	3 / 17	4.00
Thallium	0.34 - 11.5	11.5	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Vanadium	-- - --	--	17 / 17	44.5	MR04-SD06-06A	57.0	Buchman, 1999	NO	BAV	0 / 17	0.78
Pesticide/Polychlorinated Biphenyls (UG/KG)											
Aldrin	2.10 - 13.0	13.0	1 / 17	5.40	MR04-SD08-07C	9.50	Buchman, 1999	NO	BAV	0 / 17	0.57
Endosulfan I	2.10 - 13.0	13.0	0 / 17	--	--	7.52	Appendix I-2*	NO	see Uncertainties	-- / --	1.73
Endosulfan II	4.00 - 25.0	25.0	0 / 17	--	--	7.52	Appendix I-2*	NO	see Uncertainties	-- / --	3.32
Endosulfan sulfate	4.00 - 25.0	25.0	5 / 17	85.0	MR04-SD09-06A	393	Appendix I-2*	NO	BAV	0 / 17	0.22
Endrin aldehyde	4.00 - 25.0	25.0	0 / 17	--	--	1,176	Appendix I-2*	NO	ND	-- / --	0.02
Endrin ketone	4.00 - 25.0	25.0	6 / 17	24.0	MR04-SD09-06A	19.3	USEPA, 1996b*	YES	AAV	1 / 17	1.25
Heptachlor	2.10 - 13.0	13.0	0 / 17	--	--	2.33	Appendix I-2*	NO	see Uncertainties	-- / --	5.59
Heptachlor epoxide	2.10 - 13.0	13.0	0 / 17	--	--	1.43	Appendix I-2*	NO	see Uncertainties	-- / --	9.07
Methoxychlor	21.0 - 130	130	0 / 17	--	--	128	Appendix I-2*	NO	see Uncertainties	-- / --	1.01
Toxaphene	210 - 1,300	1,300	0 / 17	--	--	1,107	Appendix I-2*	NO	see Uncertainties	-- / --	1.17
alpha-BHC	2.10 - 13.0	13.0	0 / 17	--	--	101,506	Appendix I-2*	NO	ND	-- / --	0.0001
beta-BHC	2.10 - 13.0	13.0	0 / 17	--	--	1,898	Appendix I-2*	NO	ND	-- / --	0.01
delta-BHC	2.10 - 13.0	13.0	0 / 17	--	--	11,703	Appendix I-2*	NO	ND	-- / --	0.001
Semivolatile Organic Compounds (UG/KG)											
1,1-Biphenyl	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,5-Trichlorophenol	590 - 6,400	6,400	0 / 17	--	--	197	Appendix I-2*	NO	see Uncertainties	-- / --	32.5
2,4,6-Trichlorophenol	400 - 2,500	2,500	0 / 17	--	--	440	Appendix I-2*	NO	see Uncertainties	-- / --	5.69
2,4-Dichlorophenol	400 - 2,500	2,500	0 / 17	--	--	1,016	Appendix I-2*	NO	see Uncertainties	-- / --	2.46
2,4-Dimethylphenol	400 - 2,500	2,500	0 / 17	--	--	852,976	Appendix I-2*	NO	ND	-- / --	0.003
2,4-Dinitrophenol	1,000 - 6,400	6,400	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4-Dinitrotoluene	400 - 2,100	2,100	0 / 7	--	--	6,854	Appendix I-2*	NO	ND	-- / --	0.31
2,6-Dinitrotoluene	400 - 2,100	2,100	0 / 7	--	--	4,242	Appendix I-2*	NO	ND	-- / --	0.50
2-Chloronaphthalene	400 - 2,500	2,500	0 / 17	--	--	108,848	Appendix I-2*	NO	ND	-- / --	0.02
2-Chlorophenol	400 - 2,500	2,500	0 / 17	--	--	4,168	Appendix I-2*	NO	ND	-- / --	0.60
2-Methylphenol	400 - 2,500	2,500	0 / 17	--	--	2,741	Appendix I-2*	NO	ND	-- / --	0.91
2-Nitroaniline	1,000 - 6,400	6,400	0 / 17	--	--	1,440	Appendix I-2*	NO	see Uncertainties	-- / --	4.44
2-Nitrophenol	400 - 2,500	2,500	0 / 17	--	--	1,689	Appendix I-2*	NO	see Uncertainties	-- / --	1.48
3,3'-Dichlorobenzidine	400 - 2,500	2,500	0 / 17	--	--	1,474	Appendix I-2*	NO	see Uncertainties	-- / --	1.70
3-Nitroaniline	1,000 - 6,400	6,400	0 / 17	--	--	17,603	Appendix I-2*	NO	ND	-- / --	0.36
4,6-Dinitro-2-methylphenol	1,000 - 6,400	6,400	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Bromophenyl-phenylether	400 - 2,500	2,500	0 / 17	--	--	4,709,666	Appendix I-2*	NO	ND	-- / --	0.0005
4-Chloro-3-methylphenol	400 - 2,500	2,500	0 / 17	--	--	9,784	Appendix I-2*	NO	ND	-- / --	0.26
4-Chloroaniline	400 - 2,500	2,500	0 / 17	--	--	2,271	Appendix I-2*	NO	see Uncertainties	-- / --	1.10

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-19
Step 3A - Screening of Categories 3 and 4 Sediment COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
4-Chlorophenyl-phenylether	400 - 2,500	2,500	0 / 17	--	--	26,301	Appendix I-2*	NO	ND	-- / --	0.10
4-Methylphenol	400 - 2,500	2,500	1 / 17	54.0	MR04-SD08-06A	2,280	Appendix I-2*	NO	BAV	0 / 17	0.02
4-Nitroaniline	1,000 - 6,400	6,400	0 / 17	--	--	2,165	Appendix I-2*	NO	see Uncertainties	-- / --	2.96
4-Nitrophenol	1,000 - 6,400	6,400	0 / 17	--	--	12.5	Appendix I-2*	NO	see Uncertainties	-- / --	513
Acetophenone	400 - 2,500	2,500	5 / 17	130	MR04-SD08-07C	NSV	--	YES	NAV	-- / --	NSV
Atrazine	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Benzaldehyde	400 - 2,500	2,500	3 / 17	460	MR04-SD08-07C	NSV	--	YES	NAV	-- / --	NSV
Benzo(b)fluoranthene	410 - 2,500	2,500	3 / 17	530	MR04-SD08-07C	1,800	Buchman, 1999	NO	BAV	0 / 17	0.29
Benzo(g,h,i)perylene	400 - 2,500	2,500	1 / 17	190	MR04-SD08-07C	670	Buchman, 1999	NO	BAV	0 / 17	0.28
Benzo(k)fluoranthene	410 - 2,500	2,500	2 / 17	490	MR04-SD08-07C	1,800	Buchman, 1999	NO	BAV	0 / 17	0.27
Butylbenzylphthalate	410 - 2,500	2,500	2 / 17	140	MR04-SD06-07C	22,227	Appendix I-2*	NO	BAV	0 / 17	0.01
Caprolactam	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Carbazole	400 - 2,500	2,500	0 / 17	--	--	12,556	Appendix I-2*	NO	ND	-- / --	0.20
Di-n-butylphthalate	400 - 2,500	2,500	0 / 17	--	--	6,336	Appendix I-2*	NO	ND	-- / --	0.39
Di-n-octylphthalate	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibenzofuran	400 - 2,500	2,500	0 / 17	--	--	3,920	Appendix I-2*	NO	ND	-- / --	0.64
Diethylphthalate	400 - 2,500	2,500	0 / 17	--	--	632	Appendix I-2*	NO	see Uncertainties	-- / --	3.96
Dimethyl phthalate	400 - 2,500	2,500	0 / 17	--	--	1,009	Appendix I-2*	NO	see Uncertainties	-- / --	2.48
Hexachlorobenzene	400 - 2,500	2,500	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Hexachlorobutadiene	400 - 2,500	2,500	0 / 17	--	--	122	Appendix I-2*	NO	see Uncertainties	-- / --	20.5
Hexachlorocyclopentadiene	400 - 2,500	2,500	0 / 17	--	--	765	USEPA, 2006b*	NO	see Uncertainties	-- / --	3.27
Hexachloroethane	400 - 2,500	2,500	0 / 17	--	--	4,422	USEPA, 2006b*	NO	ND	-- / --	0.57
Indeno(1,2,3-cd)pyrene	400 - 2,500	2,500	1 / 17	170	MR04-SD08-07C	600	Buchman, 1999	NO	BAV	0 / 17	0.28
Isophorone	400 - 2,500	2,500	0 / 17	--	--	214	Appendix I-2*	NO	see Uncertainties	-- / --	11.7
Nitrobenzene	400 - 2,100	2,100	0 / 7	--	--	484	Appendix I-2*	NO	see Uncertainties	-- / --	4.34
Pentachlorophenol	1,000 - 6,400	6,400	0 / 17	--	--	43,835	USEPA, 2006b*	NO	ND	-- / --	0.15
Phenol	400 - 2,500	2,500	0 / 17	--	--	55.4	Appendix I-2*	NO	see Uncertainties	-- / --	45.1
bis(2-Chloroethoxy)methane	400 - 2,500	2,500	0 / 17	--	--	31,035	Appendix I-2*	NO	ND	-- / --	0.08
bis(2-Chloroethyl)ether	400 - 2,500	2,500	0 / 17	--	--	25,555	Appendix I-2*	NO	ND	-- / --	0.10
n-Nitroso-di-n-propylamine	400 - 2,500	2,500	0 / 17	--	--	130	Appendix I-2*	NO	see Uncertainties	-- / --	19.2
n-Nitrosodiphenylamine	400 - 2,500	2,500	0 / 17	--	--	2,321	USEPA, 2006b*	NO	see Uncertainties	-- / --	1.08
Explosives (UG/KG)											
1,3,5-Trinitrobenzene	98.0 - 120	120	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,3-Dinitrobenzene	98.0 - 120	120	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,6-Trinitrotoluene	98.0 - 120	120	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4-Dinitrotoluene	98.0 - 120	120	0 / 17	--	--	6,854	Appendix I-2*	NO	ND	-- / --	0.02
2,6-Dinitrotoluene	98.0 - 120	120	0 / 17	--	--	4,242	Appendix I-2*	NO	ND	-- / --	0.03
2-Amino-4,6-dinitrotoluene	98.0 - 120	120	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2-Nitrotoluene	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
3-Nitrotoluene	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Amino-2,6-dinitrotoluene	98.0 - 120	120	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Nitrotoluene	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
HMX	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Nitrobenzene	99.0 - 120	120	1 / 17	30.0	MR04-SD04-06A	484	Appendix I-2*	NO	BAV	0 / 17	0.06
Perchlorate	31.0 - 180	180	0 / 10	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
RDX	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-19
Step 3A - Screening of Categories 3 and 4 Sediment COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
Tetryl	120 - 200	200	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Volatile Organic Compounds (UG/KG)											
1,1,1-Trichloroethane	12.0 - 76.0	76	0 / 17	--	--	4,708	USEPA, 2006b*	NO	ND	-- / --	0.02
1,1,2,2-Tetrachloroethane	12.0 - 76.0	76	0 / 17	--	--	1,111	USEPA, 2006b*	NO	ND	-- / --	0.07
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,1,2-Trichloroethane	12.0 - 76.0	76	0 / 17	--	--	3,135	USEPA, 2006b*	NO	ND	-- / --	0.02
1,1-Dichloroethane	12.0 - 76.0	76	0 / 17	--	--	9,827	Appendix I-2*	NO	ND	-- / --	0.01
1,1-Dichloroethene	12.0 - 76.0	76	0 / 17	--	--	15,290	USEPA, 2006b*	NO	ND	-- / --	0.005
1,2,4-Trichlorobenzene	12.0 - 76.0	76	0 / 17	--	--	2,602	USEPA, 2006b*	NO	ND	-- / --	0.03
1,2-Dibromo-3-chloropropane	12.0 - 76.0	76	0 / 17	--	--	729	Appendix I-2*	NO	ND	-- / --	0.10
1,2-Dibromoethane	12.0 - 76.0	76	0 / 17	--	--	17,131	Appendix I-2*	NO	ND	-- / --	0.004
1,2-Dichlorobenzene	12.0 - 76.0	76	0 / 17	--	--	4,939	USEPA, 2006b*	NO	ND	-- / --	0.02
1,2-Dichloroethane	12.0 - 76.0	76	0 / 17	--	--	1,080	Appendix I-2*	NO	ND	-- / --	0.07
1,2-Dichloropropane	12.0 - 76.0	76	0 / 17	--	--	7,773	Appendix I-2*	NO	ND	-- / --	0.01
1,3-Dichlorobenzene	12.0 - 76.0	76	0 / 17	--	--	4,631	USEPA, 2006b*	NO	ND	-- / --	0.02
1,4-Dichlorobenzene	12.0 - 76.0	76	0 / 17	--	--	2,530	USEPA, 2006b*	NO	ND	-- / --	0.03
2-Butanone	12.0 - 76.0	76	3 / 17	56.0	MR04-SD08-07C	4,180	Appendix I-2*	NO	BAV	0 / 17	0.01
2-Hexanone	12.0 - 76.0	76	0 / 17	--	--	42,143	Appendix I-2*	NO	ND	-- / --	0.002
4-Methyl-2-pentanone	12.0 - 76.0	76	0 / 17	--	--	50,738	Appendix I-2*	NO	ND	-- / --	0.001
Acetone	12.0 - 76.0	76	6 / 17	270	MR04-SD08-07C	8,841	Appendix I-2*	NO	BAV	0 / 17	0.03
Benzene	12.0 - 76.0	76	0 / 17	--	--	754	USEPA, 2006b*	NO	ND	-- / --	0.10
Bromodichloromethane	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Bromoform	12.0 - 76.0	76	0 / 17	--	--	7,205	USEPA, 2006b*	NO	ND	-- / --	0.01
Bromomethane	12.0 - 76.0	76	0 / 17	--	--	69.1	Appendix I-2*	NO	see Uncertainties	-- / --	1.10
Carbon disulfide	12.0 - 76.0	76	2 / 17	3.70	MR04-SD06-07C	18,762	Appendix I-2*	NO	BAV	0 / 17	0.0002
Carbon tetrachloride	12.0 - 76.0	76	0 / 17	--	--	39,820	USEPA, 2006b*	NO	ND	-- / --	0.002
Chlorobenzene	12.0 - 76.0	76	0 / 17	--	--	891	USEPA, 2006b*	NO	ND	-- / --	0.09
Chloroethane	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Chloroform	12.0 - 76.0	76	0 / 17	--	--	2,097	Appendix I-2*	NO	ND	-- / --	0.04
Chloromethane	12.0 - 76.0	76	0 / 17	--	--	891	Appendix I-2*	NO	ND	-- / --	0.09
Cyclohexane	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibromochloromethane	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dichlorodifluoromethane (Freon-12)	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Ethylbenzene	12.0 - 76.0	76	0 / 17	--	--	1,678	USEPA, 2006b*	NO	ND	-- / --	0.05
Isopropylbenzene	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Methyl acetate	12.0 - 76.0	76	2 / 17	31.0	MR04-SD08-07C	2,640	Appendix I-2*	NO	BAV	0 / 17	0.01
Methyl-tert-butyl ether (MTBE)	12.0 - 76.0	76	0 / 17	--	--	52,207	Appendix I-2*	NO	ND	-- / --	0.001
Methylcyclohexane	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Methylene chloride	12.0 - 76.0	76	0 / 17	--	--	1,654	Appendix I-2*	NO	ND	-- / --	0.05
Styrene	12.0 - 76.0	76	0 / 17	--	--	38,885	USEPA, 2006b*	NO	ND	-- / --	0.002
Tetrachloroethene	12.0 - 76.0	76	0 / 17	--	--	1,045	USEPA, 2006b*	NO	ND	-- / --	0.07
Toluene	12.0 - 76.0	76	0 / 17	--	--	5,995	USEPA, 2006b*	NO	ND	-- / --	0.01
Trichloroethene	12.0 - 76.0	76	0 / 17	--	--	49,225	USEPA, 2006b*	NO	ND	-- / --	0.002
Trichlorofluoromethane(Freon-11)	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Vinyl chloride	12.0 - 76.0	76	0 / 17	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Xylene, total	12.0 - 76.0	76	0 / 17	--	--	11,220	Appendix I-2*	NO	ND	-- / --	0.01

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-19
Step 3A - Screening of Categories 3 and 4 Sediment COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
cis-1,2-Dichloroethene	12.0 - 76.0	76	0 / 17	--	--	1,085	Appendix I-2*	NO	ND	-- / --	0.07
cis-1,3-Dichloropropene	12.0 - 76.0	76	0 / 17	--	--	19.4	Appendix I-2*	NO	see Uncertainties	-- / --	3.92
trans-1,2-Dichloroethene	12.0 - 76.0	76	0 / 17	--	--	1,874	Appendix I-2*	NO	ND	-- / --	0.04
trans-1,3-Dichloropropene	12.0 - 76.0	76	0 / 17	--	--	19.4	Appendix I-2*	NO	see Uncertainties	-- / --	3.92
Total Petroleum Hydrocarbons (MG/KG)											
Oil and Grease	300 - 1,900	1900	1 / 10	1,800	MR04-SD09-06A	1,500	MOE, 1993 (Fresh)	YES	AAV	1 / 10	1.27
TPH-diesel range	9.80 - 120	120	3 / 10	290	MR04-SD07-06A	NSV	--	YES	NAV	-- / --	NSV
TPH-gas range	0.12 - 0.76	0.76	0 / 10	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV

Notes:
* Derived sediment benchmarks from water benchmarks based on principles of equilibrium partitioning (5.5% TOC)
COPC: Chemical of Potential Concern
mg/kg: milligrams per kilogram
µg/kg: micrograms per kilogram

Rationale for Elimination/Selection:
AAV: Above Alternate Value
BAV: Below Alternate Value (detections)
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-20
Step 3A - Refined Screening of Sediment COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL Range	Maximum DL	Maximum Concentration Detected	Supplemental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Groundwater?	COPC in Surface Water?	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Inorganics (MG/KG)																
Barium	10 / 17	34.7 - 208	208	60.3	48.0	Buchman, 1999	1 / 17	1.26	33.1	0.69	No	No	No	NO	--	Mean HQ<1, Not COPC in other media
Beryllium	8 / 17	0.50 - 5.20	5.20	0.48	NSV	--	-- / --	NSV	0.76	NSV	No	No	No	YES	No	See text
Copper	8 / 17	2.20 - 26.0	26	199	34.0	Long et al., 1995	1 / 17	5.85	17.9	0.53	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
Lead	17 / 17	-- - --	--	112	46.7	Long et al., 1995	5 / 17	2.40	33.0	0.71	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
Mercury	12 / 17	0.019 - 0.12	0.12	0.24	0.15	Long et al., 1995	2 / 17	1.60	0.083	0.55	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
Selenium	6 / 17	0.42 - 16.2	16.2	4.00	1.00	Buchman, 1999	3 / 17	4.00	2.32	2.32	Yes	No	No	YES	No	See text
Silver	0 / 17	0.11 - 4.60	4.60	--	1.00	Long et al., 1995	-- / --	4.60	0.52	0.52	Yes	Yes	No	NO		Mean HQ<1, FOD=0%
Pesticide/Polychlorinated Biphenyls (UG/KG)																
4,4'-DDD	14 / 17	4.40 - 25.0	25.0	1,100	117	Appendix I-2*	2 / 17	9.40	112	0.96	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
4,4'-DDE	15 / 17	4.40 - 5.80	5.8	520	844	Appendix I-2*	0 / 17	0.62	42.9	0.05	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
4,4'-DDT	10 / 17	4.00 - 25.0	25.0	190	7.55	Appendix I-2*	3 / 17	25.2	15.4	2.04	Yes	No	No	YES	No	see text
Aroclor-1016	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Aroclor-1221	0 / 17	82.0 - 510	510	--	63.3	USEPA, 2006b	-- / --	8.06	108	1.71	Yes	No	No	NO	--	see Uncertainties
Aroclor-1232	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Aroclor-1242	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Aroclor-1248	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Aroclor-1254	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Aroclor-1260	0 / 17	40.0 - 250	250	--	63.3	USEPA, 2006b	-- / --	3.95	53.6	0.85	Yes	No	No	NO	--	Mean HQ<1, FOD=0%
Dieldrin	5 / 17	4.00 - 25.0	25.0	23.0	523	USEPA, 1996b*	0 / 17	0.04	5.01	0.01	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Endrin	1 / 17	4.00 - 25.0	25.0	4.10	19.3	USEPA, 1996b*	0 / 17	0.21	--	--	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Endrin ketone	6 / 17	4.00 - 25.0	25.0	24.0	19.3	USEPA, 1996b*	1 / 17	1.25	5.71	0.30	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
alpha-Chlordane	2 / 17	2.10 - 13.0	13.0	12.0	26.4	Appendix I-2*	0 / 17	0.45	2.94	0.11	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
gamma-BHC (Lindane)	0 / 17	2.10 - 13.0	13.0	--	0.24	Appendix I-2*	-- / --	53.9	2.74	11.4	Yes	No	No	NO	--	see Uncertainties
gamma-Chlordane	2 / 17	2.10 - 13.0	13.0	12.0	26.4	Appendix I-2*	0 / 17	0.45	3.08	0.12	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Semivolatile Organic Compounds (UG/KG)																
2-Methylnaphthalene	0 / 17	400 - 2,500	2,500	--	7,120	Appendix I-2*	-- / --	0.35	536	0.08	No	No	No	NO	--	Max HQ<1, FOD=0%
Acenaphthene	0 / 17	400 - 2,500	2,500	--	6,050	USEPA, 1996b*	-- / --	0.41	536	0.09	Yes	No	No	NO	--	Max HQ<1, FOD=0%
Acenaphthylene	0 / 17	400 - 2,500	2,500	--	116,816	Appendix I-2*	-- / --	0.02	536	0.005	Yes	No	No	NO	--	Max HQ<1, FOD=0%
Acetophenone	5 / 17	400 - 2,500	2,500	130	NSV	--	-- / --	NSV	424	NSV	No	No	No	YES	--	see text
Anthracene	0 / 17	400 - 2,500	2,500	--	232	Appendix I-2*	-- / --	10.8	536	2.31	Yes	No	No	NO	--	see Uncertainties
Benzaldehyde	3 / 17	400 - 2,500	2,500	460	NSV	--	-- / --	NSV	463	NSV	No	No	No	YES	--	see text
Benzo(a)pyrene	3 / 17	410 - 2,500	2,500	300	430	Long et al., 1995	0 / 17	0.70	--	--	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Chrysene	2 / 17	410 - 2,500	2,500	370	384	Long et al., 1995	0 / 17	0.96	--	--	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
Dibenz(a,h)anthracene	0 / 17	400 - 2,500	2,500	--	100,608	Appendix I-2*	-- / --	0.02	536	0.005	Yes	No	No	NO	--	Max HQ<1, FOD=0%

TABLE 6-20
Step 3A - Refined Screening of Sediment COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL Range	Maximum DL	Maximum Concentration Detected	Supplemental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Groundwater?	COPC in Surface Water?	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Fluoranthene	4 / 17	430 - 2,500	2,500	610	600	Long et al., 1995	1 / 17	1.02	447	0.75	Yes	No	No	NO	--	Mean HQ<1, Not COPC in other media
Fluorene	0 / 17	400 - 2,500	2,500	--	20,861	Appendix I-2*	-- / --	0.12	536	0.03	Yes	No	No	NO	--	Max HQ<1, FOD=0%
Naphthalene	0 / 17	400 - 2,500	2,500	--	2,002	Appendix I-2*	-- / --	1.25	536	0.27	No	No	No	NO	--	MeanHQ<1, FOD=0%
Pyrene	2 / 17	410 - 2,500	2,500	650	665	Long et al., 1995	0 / 17	0.98	506	0.76	Yes	No	No	NO	--	Max HQ<1, Not COPC in other media
bis(2-Ethylhexyl)phthalate	11 / 17	410 - 1,200	1,200	1,400	1,300	Buchman, 1999	1 / 17	1.08	374	0.29	No	No	No	NO	--	Mean HQ<1, Not BAC, Not COPC in other media
Total Petroleum Hydrocarbons (MG/KG)																
Oil and Grease	1 / 10	300 - 1,900	1900	1,800	1,500	MOE, 1993 (Fresh)	1 / 10	1.27	535	0.36	No	No	No	NO	--	Mean HQ<1, Not BAC, Not COPC in other media
TPH-diesel range	3 / 10	9.80 - 120	120	290	NSV	--	-- / --	NSV	76.2	NSV	No	No	No	YES	No	see text

Notes:
* Derived sediment benchmarks from water benchmarks based on principles of equilibrium partitioning (5.5% TOC)
COPC: Chemical of Potential Concern
mg/kg: milligrams per kilogram
µg/kg: micrograms per kilogram

Rationale for Elimination/Selection:
AAV: Above Alternate Value
BAV: Below Alternate Value (detections)
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

TABLE 6-21
Step 3A - Screening of Categories 3 and 4 Groundwater COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
Inorganics (UG/L)											
Aluminum	200 - 200	200	21 / 30	2,730	MR04-GW06-07C	271	USEPA, 1999	YES	AAV	15 / 30	10.1
Antimony	2.00 - 3.20	3.2	0 / 30	--	--	500	Buchman, 1999	NO	ND	-- / --	0.01
Barium	10.0 - 200	200	15 / 30	269	MR04-GW06-07C	25,000	Derived using LC50[1]	NO	BAV	0 / 30	0.01
Beryllium	0.20 - 5.00	5.0	8 / 30	0.65	MR04-MW05-06A	0.66	USEPA, 1999	NO	BAV	0 / 30	0.98
Cobalt	0.90 - 50.0	50	14 / 30	3.60	MR04-GW05-07C	8.10	Derived using LC50*	NO	BAV	0 / 30	0.44
Iron	25.0 - 100	100	20 / 30	3,360	MR04-GW06-07C	665	Derived using LC50	YES	AAV	3 / 30	5.05
Manganese	15.0 - 15.0	15	28 / 30	160	MR04-MW06-06A	120	Suter and Tsao, 1996*	YES	AAV	1 / 30	1.33
Vanadium	0.90 - 5.00	5.0	9 / 30	15.1	MR04-MW15-06A	62.0	Derived using LC50	NO	BAV	0 / 30	0.24
Dissolved Metals (UG/L)											
Aluminum	200 - 200	200	17 / 30	2,360	MR04-GW01-07C	271	USEPA, 1999	YES	AAV	10 / 30	8.71
Antimony	2.00 - 3.20	3.2	0 / 30	--	--	500	Buchman, 1999	NO	ND	-- / --	0.01
Barium	10.0 - 200	200	14 / 30	224	MR04-MW03-06A	25,000	Derived using LC50	NO	BAV	0 / 30	0.01
Beryllium	0.20 - 5.00	5.0	9 / 30	0.73	MR04-MW05-06A	0.66	USEPA, 1999	YES	AAV	1 / 30	1.11
Cobalt	0.90 - 50.0	50	16 / 30	3.60	MR04-GW05-07C	8.10	Derived using LC50*	NO	BAV	0 / 30	0.44
Iron	17.9 - 100	100	14 / 30	867	MR04-MW05-06A	665	Derived using LC50	YES	AAV	2 / 30	1.30
Manganese	0.20 - 15.0	15	27 / 30	140	MR04-MW06-06A	120	Suter and Tsao, 1996*	YES	AAV	1 / 30	1.17
Vanadium	0.90 - 5.00	5.0	9 / 30	14.6	MR04-MW15-06A	62.0	Derived using LC50	NO	BAV	0 / 30	0.24
Pesticide/Polychlorinated Biphenyls (UG/L)											
Endosulfan sulfate	0.019 - 0.25	0.25	0 / 30	--	--	0.009	TCEQ, 2005 (endosulfan I)	NO	see Uncertainties	-- / --	27.8
Endrin aldehyde	0.019 - 0.25	0.25	0 / 30	--	--	0.01	USEPA, 1996b (endrin)	NO	see Uncertainties	-- / --	25.0
Endrin ketone	0.019 - 0.25	0.25	0 / 30	--	--	0.01	USEPA, 1996b (endrin)	NO	see Uncertainties	-- / --	25.0
beta-BHC	0.0094 - 0.13	0.13	1 / 30	0.0048	MR04-GW11-07C	25.0	TCEQ, 2005 (alpha-BHC)	NO	BAV	0 / 30	0.0002
delta-BHC	0.0094 - 0.13	0.13	0 / 30	--	--	25.0	TCEQ, 2005 (alpha-BHC)	NO	ND	-- / --	0.01
Semivolatile Organic Compounds (UG/L)											
1,1-Biphenyl	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,2,4,5-Tetrachlorobenzene	4.80 - 6.90	6.9	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,2'-Oxybis(1-chloropropane)	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,3,4,6-Tetrachlorophenol	4.80 - 6.90	6.9	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,5-Trichlorophenol	4.80 - 33.0	33	0 / 30	--	--	12.0	TCEQ, 2005	NO	see Uncertainties	-- / --	2.75
2,4,6-Trichlorophenol	4.80 - 13.0	13	0 / 30	--	--	61.0	TCEQ, 2005	NO	ND	-- / --	0.21
2,4-Dichlorophenol	4.80 - 13.0	13	0 / 30	--	--	257	Derived using LC50	NO	ND	-- / --	0.05
2,4-Dimethylphenol	4.80 - 13.0	13	0 / 30	--	--	132,000	Derived using LC50	NO	ND	-- / --	0.0001
2,4-Dinitrotoluene	4.80 - 6.90	6.9	0 / 15	--	--	2,430	Derived using LC50*	NO	ND	-- / --	0.003
2,6-Dinitrotoluene	4.80 - 6.90	6.9	0 / 15	--	--	1,850	Derived using LC50*	NO	ND	-- / --	0.004
2-Chloronaphthalene	4.80 - 13.0	13	0 / 30	--	--	233	Derived using LC50	NO	ND	-- / --	0.06
2-Chlorophenol	4.80 - 13.0	13	0 / 30	--	--	265	TCEQ, 2005	NO	ND	-- / --	0.05
2-Methylnaphthalene	4.80 - 13.0	13	0 / 30	--	--	30.0	TCEQ, 2005	NO	ND	-- / --	0.43
2-Methylphenol	4.80 - 13.0	13	0 / 30	--	--	510	TCEQ, 2005	NO	ND	-- / --	0.03
2-Nitroaniline	9.50 - 33.0	33	0 / 30	--	--	973	Derived using LC50*	NO	ND	-- / --	0.03
2-Nitrophenol	4.80 - 13.0	13	0 / 30	--	--	1,470	TCEQ, 2005	NO	ND	-- / --	0.01
3,3'-Dichlorobenzidine	4.80 - 13.0	13	0 / 30	--	--	37.0	TCEQ, 2005	NO	ND	-- / --	0.35
3-Nitroaniline	9.50 - 33.0	33	0 / 30	--	--	8,120	Derived using LC50*	NO	ND	-- / --	0.004
4,6-Dinitro-2-methylphenol	9.50 - 33.0	33	0 / 30	--	--	77.0	Derived using LC50*	NO	ND	-- / --	0.43
4-Bromophenyl-phenylether	4.80 - 13.0	13	0 / 30	--	--	590	Derived using LC50*	NO	ND	-- / --	0.02
4-Chloro-3-methylphenol	4.80 - 13.0	13	0 / 30	--	--	203	Derived using LC50*	NO	ND	-- / --	0.06

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-21
Step 3A - Screening of Categories 3 and 4 Groundwater COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
4-Chloroaniline	4.80 - 13.0	13	0 / 30	--	--	625	Derived using LC50	NO	ND	-- / --	0.02
4-Chlorophenyl-phenylether	4.80 - 13.0	13	0 / 30	--	--	36.5	TCEQ, 2005	NO	ND	-- / --	0.36
4-Methylphenol	4.80 - 13.0	13	1 / 30	1.20	MR04-MW10-06A	510	TCEQ, 2005(2-methylphenol)	NO	BAV	0 / 30	0.002
4-Nitroaniline	9.50 - 33.0	33	0 / 30	--	--	3,500	Derived using LC50*	NO	ND	-- / --	0.01
Acenaphthylene	4.80 - 13.0	13	0 / 30	--	--	307	USEPA, 2000	NO	ND	-- / --	0.04
Acetophenone	4.80 - 13.0	13	1 / 30	1.10	MR04-MW07-06A	NSV	--	YES	NAV	-- / --	NSV
Anthracene	4.80 - 13.0	13	0 / 30	--	--	0.18	TCEQ, 2005	NO	see Uncertainties	-- / --	72.2
Atrazine	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Benzaldehyde	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Benzo(a)anthracene	4.80 - 13.0	13	0 / 30	--	--	2.20	USEPA, 2000	NO	see Uncertainties	-- / --	5.91
Benzo(a)pyrene	4.80 - 13.0	13	0 / 30	--	--	0.96	USEPA, 2000	NO	see Uncertainties	-- / --	13.5
Benzo(b)fluoranthene	4.80 - 13.0	13	0 / 30	--	--	0.68	USEPA, 2000	NO	see Uncertainties	-- / --	19.1
Benzo(g,h,i)perylene	4.80 - 13.0	13	0 / 30	--	--	0.44	USEPA, 2000	NO	see Uncertainties	-- / --	29.5
Benzo(k)fluoranthene	4.80 - 13.0	13	0 / 30	--	--	0.64	USEPA, 2000	NO	see Uncertainties	-- / --	20.3
Caprolactam	4.80 - 19.0	19	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Carbazole	4.80 - 13.0	13	0 / 30	--	--	93.0	TCEQ, 2005	NO	ND	-- / --	0.14
Chrysene	4.80 - 13.0	13	0 / 30	--	--	2.00	USEPA, 2000	NO	see Uncertainties	-- / --	6.50
Di-n-octylphthalate	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibenz(a,h)anthracene	4.80 - 13.0	13	0 / 30	--	--	0.96	benzo(a)pyrene as surrogate	NO	see Uncertainties	-- / --	13.5
Dibenzofuran	4.80 - 13.0	13	0 / 30	--	--	65.0	TCEQ, 2005	NO	ND	-- / --	0.20
Fluorene	4.80 - 13.0	13	0 / 30	--	--	50.0	TCEQ, 2005	NO	ND	-- / --	0.26
Hexachlorobenzene	4.80 - 13.0	13	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Indeno(1,2,3-cd)pyrene	4.80 - 13.0	13	0 / 30	--	--	0.28	USEPA, 2000	NO	see Uncertainties	-- / --	46.4
Phenanthrene	4.80 - 13.0	13	0 / 30	--	--	4.60	TCEQ, 2005	NO	see Uncertainties	-- / --	2.83
Pyrene	4.80 - 13.0	13	0 / 30	--	--	0.24	TCEQ, 2005	NO	see Uncertainties	-- / --	54.2
bis(2-Chloroethoxy)methane	4.80 - 13.0	13	0 / 30	--	--	1,840	Derived using LC50*	NO	ND	-- / --	0.01
bis(2-Chloroethyl)ether	4.80 - 13.0	13	0 / 30	--	--	30,000	Derived using LC50*	NO	ND	-- / --	0.0004
bis(2-Ethylhexyl)phthalate	4.80 - 85.0	85	8 / 30	8.10	MR04-MW08-06A	360	Buchman, 1999	NO	BAV	0 / 30	0.02
n-Nitroso-di-n-propylamine	4.80 - 13.0	13	0 / 30	--	--	120	TCEQ, 2005	NO	ND	-- / --	0.11
Explosives (UG/L)											
1,3,5-Trinitrobenzene	0.25 - 0.26	0.26	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,3-Dinitrobenzene	0.25 - 0.26	0.26	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2,4,6-Trinitrotoluene	0.25 - 0.26	0.26	1 / 30	0.065	MR04-MW06-06A	100	USEPA, 2006b*	NO	BAV	0 / 30	0.001
2,4-Dinitrotoluene	0.25 - 0.26	0.26	2 / 30	0.20	MR04-MW07-06A	2,430	Derived using LC50*	NO	BAV	0 / 30	0.0001
2,6-Dinitrotoluene	0.25 - 0.26	0.26	1 / 30	0.32	MR04-MW12-06A	1,850	Derived using LC50*	NO	BAV	0 / 30	0.0002
2-Amino-4,6-dinitrotoluene	0.25 - 0.26	0.26	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
2-Nitrotoluene	0.25 - 0.52	0.52	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
3-Nitrotoluene	0.25 - 0.52	0.52	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Amino-2,6-dinitrotoluene	0.25 - 0.26	0.26	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
4-Nitrotoluene	0.25 - 0.52	0.52	7 / 30	1.60	MR04-MW07-06A	1,900	USEPA, 2006b*	NO	BAV	0 / 30	0.001
HMX	0.25 - 0.52	0.52	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Perchlorate	1.00 - 2.00	2.0	1 / 15	1.30	MR04-MW15-06A	600	USEPA, 2002*	NO	BAV	0 / 30	0.002
RDX	0.25 - 0.52	0.52	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Tetryl	0.25 - 0.52	0.52	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Volatile Organic Compounds (UG/L)											
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-21
Step 3A - Screening of Categories 3 and 4 Groundwater COPCs with Alternate Screening Values
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	DL_Range	Maximum DL	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Alternate Value	Source of Alternate Value	COPC Flag	Rational for Elimination or Selection	Frequency of Exceedance	Maximum Hazard Quotient[1]
1,1,2-Trichloroethane	0.50 - 10.0	10	0 / 30	--	--	275	TCEQ, 2005	NO	ND	-- / --	0.04
1,1-Dichloroethane	0.50 - 10.0	10	0 / 30	--	--	5,650	TCEQ, 2005 (1-2-dichloroethane)	NO	ND	-- / --	0.002
1,2,3-Trichlorobenzene	0.50 - 0.50	0.50	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
1,2-Dibromo-3-chloropropane	0.50 - 10.0	10	0 / 30	--	--	78.0	Derived using LC50	NO	ND	-- / --	0.13
1,2-Dibromoethane	0.50 - 10.0	10	0 / 30	--	--	5,800	Benville et al., 1985	NO	ND	-- / --	0.002
2-Butanone	10.0 - 10.0	10	0 / 15	--	--	40,000	Derived using LC50	NO	ND	-- / --	0.0003
2-Hexanone	5.00 - 10.0	10	0 / 30	--	--	42,800	Derived using LC50*	NO	ND	-- / --	0.0002
4-Methyl-2-pentanone	5.00 - 10.0	10	0 / 30	--	--	61,500	TCEQ, 2005	NO	ND	-- / --	0.0002
Acetone	10.0 - 10.0	10	1 / 16	5.80	MR04-GW06-07C	282,000	TCEQ, 2005	NO	BAV	0 / 16	0.00002
Bromochloromethane	0.50 - 0.50	0.50	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Bromodichloromethane	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Carbon disulfide	0.50 - 10.0	10	0 / 30	--	--	6,500	Derived using LC50	NO	ND	-- / --	0.002
Chloroethane	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Cyclohexane	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Dibromochloromethane	0.50 - 10.0	10	0 / 30	--	--	3,400	Derived using LC50*	NO	ND	-- / --	0.003
Dichlorodifluoromethane (Freon-12)	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Isopropylbenzene	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Methyl acetate	10.0 - 10.0	10	0 / 15	--	--	32,000	Derived using LC50*	NO	ND	-- / --	0.0003
Methyl-tert-butyl ether (MTBE)	0.50 - 10.0	10	0 / 30	--	--	67,200	Derived using LC50*	NO	ND	-- / --	0.0001
Methylcyclohexane	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Styrene	0.50 - 10.0	10	0 / 30	--	--	455	TCEQ, 2005	NO	ND	-- / --	0.02
Trichloroethene	0.50 - 10.0	10	0 / 30	--	--	970	TCEQ, 2005	NO	ND	-- / --	0.01
Trichlorofluoromethane(Freon-11)	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Vinyl chloride	0.50 - 10.0	10	0 / 30	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
Xylene, total	10.0 - 10.0	10	0 / 15	--	--	850	TCEQ, 2005	NO	ND	-- / --	0.01
cis-1,2-Dichloroethene	0.50 - 10.0	10	0 / 30	--	--	680	TCEQ, 2005 (mixed isomers)	NO	ND	-- / --	0.01
m- and p-Xylene	0.50 - 0.50	0.50	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
o-Xylene	0.50 - 0.50	0.50	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
trans-1,2-Dichloroethene	0.50 - 10.0	10	0 / 30	--	--	680	TCEQ, 2005 (mixed isomers)	NO	ND	-- / --	0.01
Total Petroleum Hydrocarbons (UG/L)											
Oil and Grease	1,100 - 5,900	5,900	1 / 15	7,200	MR04-MW14-06A	NSV	--	YES	NAV	-- / --	NSV
TPH-diesel range	64.0 - 180	180	0 / 15	--	--	NSV	--	NO	see Uncertainties	-- / --	NSV
TPH-gas range	100 - 100	100	3 / 15	47.0	MR04-MW02-06A	NSV	--	YES	NAV	-- / --	NSV

COPC: Chemical of Potential Concern
µg/L: micrograms per liter
[1] LC50: lethal concentration to 50% of tested organisms (see Appendix I-2)
* Saltwater value not available; freshwater value is used

Rationale for Elimination/Selection:
BAV: Below Alternate Value (detections)
AAV: Above Alternate Value
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

1 - Shaded cells indicate HQ based upon detection limits

TABLE 6-22
Step 3A - Refined Screening of Groundwater COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL_Range	Maximum DL	Maximum Concentration Detected	Supplemental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Surface Water?	COPC in Sediment?	Maximum HQ (DF=10)	Mean HQ (DF = 10)	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Inorganics (UG/L)																		
Aluminum	21 / 30	200 - 200	200	2,730	271	USEPA, 1999	15 / 30	10.1	645	2.38	No	Yes	No	1.01	0.24	YES	No	see text
Beryllium	8 / 30	0.20 - 5.00	5.0	0.65	0.66	USEPA, 1999	0 / 30	0.98	--	--	No	No	Yes	0.10	--	NO	--	Max HQ<1
Chromium	7 / 30	1.00 - 2.00	2.0	446	50.4	USEPA, 2006a	1 / 30	8.85	17.9	0.36	Yes	No	No	0.88	0.04	NO	--	Mean HQ<1; Not COPC in other media
Cyanide	0 / 30	5.00 - 10.0	10	--	1.00	USEPA, 2006a	-- / --	10.0	3.75	3.75	No	No	No	1.00	0.38	NO	--	see Uncertainties
Iron	20 / 30	25.0 - 100	100	3,360	665	Derived using LC50[1]	3 / 30	5.05	280	0.42	No	No	No	0.51	0.04	NO	--	Mean HQ<1; Not COPC in other media
Manganese	28 / 30	15.0 - 15.0	15	160	120	Suter and Tsao, 1996*	1 / 30	1.33	27.3	0.23	No	No	No	0.13	0.02	NO	--	Mean HQ<1; Not COPC in other media
Mercury	1 / 30	0.10 - 0.20	0.20	0.054	1.10	USEPA, 2006a	0 / 30	0.05	--	--	Yes	No	No	0.005	--	NO	--	Max HQ<1, Not COPC in other media
Nickel	23 / 30	1.00 - 1.40	1.4	12.8	8.30	USEPA, 2006a	3 / 30	1.54	3.43	0.41	Yes	No	No	0.15	0.04	NO	--	Mean HQ<1; Not COPC in other media
Silver	2 / 30	0.70 - 1.00	1.0	4.70	0.23	USEPA, 2001	2 / 30	20.4	0.58	2.53	Yes	No	No	2.04	0.25	YES	No	see text
Dissolved Metals (UG/L)																		
Aluminum	17 / 30	200 - 200	200	2,360	271	USEPA, 1999	10 / 30	8.71	480	1.77	No	Yes	No	0.87	0.18	YES	No	see text
Beryllium	9 / 30	0.20 - 5.00	5.0	0.73	0.66	USEPA, 1999	1 / 30	1.11	--	--	No	No	Yes	0.11	--	NO	--	Max HQ(dilution)<1, Not BAC, Total
Chromium	3 / 30	1.00 - 2.00	2.0	393	50.0	USEPA, 2006a	1 / 30	7.86	15.0	0.30	Yes	No	No	0.79	0.03	NO	--	Mean HQ<1; Not COPC in other media
Iron	14 / 30	17.9 - 100	100	867	665	Derived using LC50	2 / 30	1.30	133	0.20	No	No	No	0.13	0.02	NO	--	Mean HQ<1; Not COPC in other media
Manganese	27 / 30	0.20 - 15.0	15	140	120	Suter and Tsao, 1996*	1 / 30	1.17	24.6	0.21	No	No	No	0.12	0.02	NO	--	Mean HQ<1; Not COPC in other media
Mercury	0 / 30	0.10 - 0.20	0.20	--	0.94	USEPA, 2006a	-- / --	0.21	0.075	0.08	Yes	No	No	0.02	0.01	NO	--	Max HQ<1, FOD=0%, Not COPC in other media
Nickel	22 / 30	1.00 - 2.60	2.6	13.6	8.20	USEPA, 2006a	3 / 30	1.66	3.15	0.38	Yes	No	No	0.17	0.04	NO	--	Mean HQ<1; Not COPC in other media
Silver	1 / 30	0.70 - 10.0	10	1.10	0.23	USEPA, 2001	1 / 30	4.78	0.61	2.63	Yes	No	No	0.48	0.26	YES	No	see text
Pesticide/Polychlorinated Biphenyls (UG/L)																		
4,4'-DDD	0 / 30	0.019 - 0.25	0.25	--	0.025	USEPA, 2001	-- / --	10.0	0.038	1.50	Yes	No	No	1.00	0.15	NO	--	see Uncertainties
4,4'-DDE	0 / 30	0.019 - 0.25	0.25	--	0.14	USEPA, 2001	-- / --	1.79	0.038	0.27	Yes	No	No	0.18	0.03	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
4,4'-DDT	0 / 30	0.019 - 0.25	0.25	--	0.001	USEPA, 2006a	-- / --	250	0.038	37.5	Yes	No	Yes	25.0	3.75	NO	--	see Uncertainties
Aldrin	0 / 30	0.009 - 0.13	0.13	--	0.13	USEPA, 2001	-- / --	1.00	0.019	0.14	Yes	No	No	0.10	0.01	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Aroclor-1016	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1221	0 / 30	0.19 - 5.00	5.0	--	0.03	USEPA, 2006a	-- / --	167	0.70	23.3	Yes	No	No	16.7	2.33	NO	--	see Uncertainties
Aroclor-1232	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1242	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1248	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1254	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1260	0 / 30	0.19 - 2.50	2.5	--	0.03	USEPA, 2006a	-- / --	83.3	0.38	12.5	Yes	No	No	8.33	1.25	NO	--	see Uncertainties
Aroclor-1262	0 / 15	0.19 - 0.22	0.22	--	0.03	USEPA, 2006a	-- / --	7.33	0.10	3.41	Yes	No	No	0.73	0.34	NO	--	see Uncertainties
Aroclor-1268	0 / 15	0.19 - 0.22	0.22	--	0.03	USEPA, 2006a	-- / --	7.33	0.10	3.41	Yes	No	No	0.73	0.34	NO	--	see Uncertainties
Dieldrin	0 / 30	0.019 - 0.25	0.25	--	0.11	USEPA, 1996b (FCV)	-- / --	2.27	0.038	0.34	Yes	No	No	0.23	0.03	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Endosulfan I	0 / 30	0.009 - 0.13	0.13	--	0.0087	USEPA, 2006a	-- / --	14.9	0.019	2.16	Yes	No	No	1.49	0.22	NO	--	see Uncertainties
Endosulfan II	0 / 30	0.019 - 0.25	0.25	--	0.0087	USEPA, 2006a	-- / --	28.7	0.038	4.31	Yes	No	No	2.87	0.43	NO	--	see Uncertainties

TABLE 6-22
Step 3A - Refined Screening of Groundwater COPCs
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Frequency of Detection (FOD)	DL_Range	Maximum DL	Maximum Concentration Detected	Supplemental Value (SSV)	Source of SSV	Frequency of Exceedance (FOE)	Maximum Hazard Quotient[1]	Arithmetic Mean	Mean Hazard Quotient[1]	Bioaccum-ulation Potential (BAC)	COPC in Surface Water?	COPC in Sediment?	Maximum HQ (DF=10)	Mean HQ (DF = 10)	COPC Flag	Site-Related Gradient?	Rational for Elimination or Selection
Endrin	0 / 30	0.019 - 0.25	0.25	--	0.01	USEPA, 1996b (FCV)	-- / --	25.0	0.038	3.75	Yes	No	No	2.50	0.38	NO	--	see Uncertainties
Heptachlor	0 / 30	0.009 - 0.13	0.13	--	0.0036	USEPA, 2006a	-- / --	36.1	0.019	5.23	Yes	Yes	No	3.61	0.52	NO	--	see Uncertainties
Heptachlor epoxide	3 / 30	0.009 - 0.24	0.24	0.21	0.0036	USEPA, 2006a	3 / 30	58.3	0.038	10.5	Yes	No	No	5.83	1.05	YES	No	see text
Methoxychlor	0 / 30	0.094 - 1.30	1.3	--	0.03	USEPA, 2006a	-- / --	43.3	0.19	6.23	Yes	No	No	4.33	0.62	NO	--	see Uncertainties
Toxaphene	0 / 30	0.94 - 13.0	13	--	0.21	USEPA, 1996b (FCV)	-- / --	61.9	1.87	8.90	Yes	No	No	6.19	0.89	NO	--	see Uncertainties
alpha-Chlordane	0 / 30	0.009 - 0.13	0.13	--	0.004	USEPA, 2006a	-- / --	32.5	0.019	4.71	Yes	No	No	3.25	0.47	NO	--	see Uncertainties
gamma-BHC (Lindane)	0 / 30	0.009 - 0.13	0.13	--	0.016	USEPA, 2001	-- / --	8.13	0.019	1.18	Yes	No	No	0.81	0.12	NO	--	see Uncertainties
gamma-Chlordane	0 / 30	0.009 - 0.13	0.13	--	0.004	USEPA, 2006a	-- / --	32.5	0.019	4.71	Yes	No	No	3.25	0.47	NO	--	see Uncertainties
Semivolatile Organic Compounds (UG/L)																		
Acenaphthene	0 / 30	4.80 - 13.0	13	--	9.70	USEPA, 2001	-- / --	1.34	4.42	0.46	Yes	No	No	0.13	0.05	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Acetophenone	1 / 30	4.80 - 13.0	13	1.10	NSV	--	-- / --	NSV	--	NSV	No	No	No	NSV	NSV	YES	--	see text
Fluoranthene	0 / 30	4.80 - 13.0	13	--	1.60	USEPA, 2001	-- / --	8.13	4.42	2.76	Yes	No	No	0.81	0.28	NO	--	see Uncertainties
Hexachlorobutadiene	0 / 30	4.80 - 13.0	13	--	0.32	USEPA, 2001	-- / --	40.6	4.42	13.8	Yes	No	No	4.06	1.38	NO	--	see Uncertainties
Hexachlorocyclopentadiene	0 / 30	4.80 - 13.0	13	--	0.07	USEPA, 2001	-- / --	186	4.42	63.1	Yes	No	No	18.6	6.31	NO	--	see Uncertainties
Hexachloroethane	0 / 30	4.80 - 13.0	13	--	9.40	USEPA, 2001	-- / --	1.38	4.42	0.47	Yes	No	No	0.14	0.05	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Pentachlorophenol	0 / 30	9.50 - 33.0	33	--	7.90	USEPA, 2001	-- / --	4.18	10.2	1.29	Yes	No	No	0.42	0.13	NO	--	see Uncertainties
Volatile Organic Compounds (UG/L)																		
1,2,4-Trichlorobenzene	0 / 30	0.50 - 10.0	10	--	4.50	USEPA, 2001	-- / --	2.22	2.63	0.58	Yes	No	No	0.22	0.06	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Ethylbenzene	0 / 30	0.50 - 10.0	10	--	4.30	USEPA, 2001	-- / --	2.33	2.63	0.61	No	No	No	0.23	0.06	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
cis-1,3-Dichloropropene	0 / 30	0.50 - 10.0	10	--	7.90	USEPA, 2001	-- / --	1.27	2.63	0.33	No	No	No	0.13	0.03	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
trans-1,3-Dichloropropene	0 / 30	0.50 - 10.0	10	--	7.90	USEPA, 2001	-- / --	1.27	2.63	0.33	No	No	No	0.13	0.03	NO	--	Mean HQ<1, FOD=0%, Not COPC in other media
Total Petroleum Hydrocarbons (UG/L)																		
Oil and Grease	1 / 15	1,100 - 5,900	5,900	7,200	NSV	--	-- / --	NSV	2,050	NSV	No	No	No	NSV	NSV	YES	--	see text
TPH-gas range	3 / 15	100 - 100	100	47.0	NSV	--	-- / --	NSV	47.2	NSV	No	No	No	NSV	NSV	YES	--	see text

COPC: Chemical of Potential Concern
µg/L: micrograms per liter
[1] LC50: lethal concentration to 50% of tested organisms (see Appendix I-2)
* Saltwater value not available; freshwater value is used

Rationale for Elimination/Selection:
BAV: Below Alternate Value (detections)
AAV: Above Alternate Value
ND: Not Detected and Not Above Alternate Value
NAV: No Alternate Value

TABLE 6-23
Summary of Hazard Quotients for Food Web Exposures - Step 3A
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Arithmetic Mean				95% UCL (Normal Distribution)			
	Mink		Great blue heron		Mink		Great blue heron	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Inorganics								
Mercury	0.06	0.04	0.59	0.20	0.08	0.05	0.78	0.26
Pesticides/PCBs								
4,4'-DDE	0.04	<0.01	0.21	0.02	0.09	0.02	0.47	0.05
Aroclor-1221	0.35	0.07	0.05	0.01	0.45	0.09	0.07	0.01
Aroclor-1232	0.17	0.03	0.03	<0.01	0.22	0.04	0.03	<0.01
Aroclor-1242	0.17	0.03	0.03	<0.01	0.22	0.04	0.03	<0.01
Aroclor-1248	0.17	0.03	0.03	<0.01	0.22	0.04	0.03	<0.01
Aroclor-1254	0.17	0.03	0.03	<0.01	0.22	0.04	0.03	<0.01
Aroclor-1260	0.17	0.03	0.03	<0.01	0.22	0.04	0.03	<0.01
Semivolatile Organics								
Hexachlorobenzene	0.01	<0.01	0.25	0.05	0.02	<0.01	0.33	0.07

TABLE 6-24
Sample Detection Limit to Screening Value Comparison
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Units	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Mean Concentration	Screening Value	Minimum Ratio	Maximum Ratio	Mean Ratio
Surface Water									
Beryllium (dissolved)	UG/L	0 / 7	5.00	5.00	2.50	0.66	7.58	7.58	3.79
Cadmium (dissolved)	UG/L	0 / 7	5.00	10.0	4.29	8.80	0.57	1.14	0.49
Cadmium (total)	UG/L	0 / 17	0.40	10.0	1.88	8.85	0.05	1.13	0.21
Copper (dissolved)	UG/L	0 / 7	50.0	125	35.7	3.10	16.1	40.3	11.5
Copper (total)	UG/L	0 / 17	0.70	125	20.6	3.70	0.19	33.8	5.58
Cyanide	UG/L	0 / 17	5.00	10.0	3.53	1.00	5.00	10.0	3.53
Nickel (dissolved)	UG/L	0 / 7	10.0	25.0	7.14	8.20	1.22	3.05	0.87
4,4'-DDT	UG/L	0 / 17	0.02	0.13	0.040	0.001	20.0	130	40.0
Aroclor-1016	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1221	UG/L	0 / 17	0.19	2.50	0.749	0.03	6.33	83.3	25.0
Aroclor-1232	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1242	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1248	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1254	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1260	UG/L	0 / 17	0.19	1.30	0.399	0.03	6.33	43.3	13.3
Aroclor-1262	UG/L	0 / 7	0.19	0.24	0.106	0.03	6.33	8.00	3.52
Aroclor-1268	UG/L	0 / 7	0.19	0.24	0.106	0.03	6.33	8.00	3.52
Endosulfan I	UG/L	0 / 17	0.01	0.06	0.020	0.0087	1.15	6.90	2.28
Endosulfan II	UG/L	0 / 17	0.02	0.13	0.040	0.0087	2.30	14.9	4.60
Endosulfan sulfate	UG/L	0 / 17	0.02	0.13	0.040	0.009	2.22	14.4	4.44
Endrin	UG/L	0 / 17	0.02	0.13	0.040	0.01	2.00	13.0	4.00
Heptachlor epoxide	UG/L	0 / 17	0.01	0.20	0.034	0.0036	2.78	55.6	9.44
Methoxychlor	UG/L	0 / 17	0.10	0.63	0.199	0.03	3.33	21.0	6.62
Toxaphene	UG/L	0 / 17	1.00	6.30	1.985	0.21	4.76	30.0	9.45
alpha-Chlordane	UG/L	0 / 17	0.01	0.06	0.020	0.004	2.50	15.0	4.96
gamma-BHC (Lindane)	UG/L	0 / 17	0.01	0.06	0.020	0.016	0.63	3.75	1.24
gamma-Chlordane	UG/L	0 / 17	0.01	0.06	0.020	0.004	2.50	15.0	4.96
2,4,5-Trichlorophenol	UG/L	0 / 17	5.10	35.0	10.2	12.0	0.43	2.92	0.85

Shaded cells indicate ratios > 1

TABLE 6-24
Sample Detection Limit to Screening Value Comparison
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Units	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Mean Concentration	Screening Value	Minimum Ratio	Maximum Ratio	Mean Ratio
Acenaphthene	UG/L	0 / 17	5.10	14.0	4.71	9.70	0.53	1.44	0.49
Anthracene	UG/L	0 / 17	5.10	14.0	4.71	0.18	28.3	77.8	26.2
Benzo(a)anthracene	UG/L	0 / 17	5.10	14.0	4.71	2.20	2.32	6.36	2.14
Benzo(a)pyrene	UG/L	0 / 17	5.10	14.0	4.71	0.96	5.31	14.6	4.91
Benzo(b)fluoranthene	UG/L	0 / 17	5.10	14.0	4.71	0.68	7.50	20.6	6.93
Benzo(g,h,i)perylene	UG/L	0 / 17	5.10	14.0	4.71	0.44	11.6	31.8	10.7
Benzo(k)fluoranthene	UG/L	0 / 17	5.10	14.0	4.71	0.64	7.97	21.9	7.37
Chrysene	UG/L	0 / 17	5.10	14.0	4.71	2.00	2.55	7.00	2.36
Di-n-butylphthalate	UG/L	0 / 17	5.10	14.0	4.71	3.40	1.50	4.12	1.39
Dibenz(a,h)anthracene	UG/L	0 / 17	5.10	14.0	4.71	0.96	5.31	14.6	4.91
Fluoranthene	UG/L	0 / 17	5.10	14.0	4.71	1.60	3.19	8.75	2.95
Hexachlorobutadiene	UG/L	0 / 17	5.10	14.0	4.71	0.32	15.9	43.8	14.7
Hexachlorocyclopentadiene	UG/L	0 / 17	5.10	14.0	4.71	0.07	72.9	200	67.4
Hexachloroethane	UG/L	0 / 17	5.10	14.0	4.71	9.40	0.54	1.49	0.50
Indeno(1,2,3-cd)pyrene	UG/L	0 / 17	5.10	14.0	4.71	0.28	18.2	50.0	16.8
Pentachlorophenol	UG/L	0 / 17	10.0	35.0	11.2	7.90	1.27	4.43	1.42
Phenanthrene	UG/L	0 / 17	5.10	14.0	4.71	4.60	1.11	3.04	1.02
Pyrene	UG/L	0 / 17	5.10	14.0	4.71	0.24	21.3	58.3	19.6
1,2,4-Trichlorobenzene	UG/L	0 / 17	0.50	10.0	3.04	4.50	0.11	2.22	0.68
Sediment									
Silver	MG/KG	0 / 17	0.11	4.6	0.52	1.00	0.11	4.60	0.52
Aroclor-1016	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Aroclor-1221	UG/KG	0 / 17	82.0	510	108	63.3	1.30	8.06	1.71
Aroclor-1232	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Aroclor-1242	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Aroclor-1248	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Aroclor-1254	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Aroclor-1260	UG/KG	0 / 17	40.0	250	53.6	63.3	0.63	3.95	0.85
Endosulfan I	UG/KG	0 / 17	2.10	13	2.74	7.52	0.28	1.73	0.36

Shaded cells indicate ratios > 1

TABLE 6-24
Sample Detection Limit to Screening Value Comparison
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Units	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Mean Concentration	Screening Value	Minimum Ratio	Maximum Ratio	Mean Ratio
Endosulfan II	UG/KG	0 / 17	4.00	25	5.36	7.52	0.53	3.32	0.71
Heptachlor	UG/KG	0 / 17	2.10	13	2.74	2.33	0.90	5.58	1.18
Heptachlor epoxide	UG/KG	0 / 17	2.10	13	2.74	1.43	1.47	9.09	1.91
Methoxychlor	UG/KG	0 / 17	21.0	130	27.4	128	0.16	1.02	0.21
Toxaphene	UG/KG	0 / 17	210	1,300	274	1,107	0.19	1.17	0.25
gamma-BHC (Lindane)	UG/KG	0 / 17	2.10	13	2.74	0.24	8.75	54.2	11.4
2,4,5-Trichlorophenol	UG/KG	0 / 17	590	6,400	1,267	197	2.99	32.5	6.43
2,4,6-Trichlorophenol	UG/KG	0 / 17	400	2,500	536	440	0.91	5.68	1.22
2,4-Dichlorophenol	UG/KG	0 / 17	400	2,500	536	1,016	0.39	2.46	0.53
2-Nitroaniline	UG/KG	0 / 17	1,000	6,400	1,488	1,440	0.69	4.44	1.03
2-Nitrophenol	UG/KG	0 / 17	400	2,500	536	1,689	0.24	1.48	0.32
3,3'-Dichlorobenzidine	UG/KG	0 / 17	400	2,500	536	1,474	0.27	1.70	0.36
4-Chloroaniline	UG/KG	0 / 17	400	2,500	593	2,271	0.18	1.10	0.26
4-Nitroaniline	UG/KG	0 / 17	1,000	6,400	1,488	2,165	0.46	2.96	0.69
4-Nitrophenol	UG/KG	0 / 17	1,000	6,400	1,488	12.5	80.2	513	119
Anthracene	UG/KG	0 / 17	400	2,500	536	232	1.72	10.8	2.31
Diethylphthalate	UG/KG	0 / 17	400	2,500	536	632	0.63	3.95	0.85
Dimethyl phthalate	UG/KG	0 / 17	400	2,500	536	1,009	0.40	2.48	0.53
Hexachlorobutadiene	UG/KG	0 / 17	400	2,500	536	122	3.28	20.5	4.40
Hexachlorocyclopentadiene	UG/KG	0 / 17	400	2,500	536	765	0.52	3.27	0.70
Isophorone	UG/KG	0 / 17	400	2,500	536	214	1.87	11.7	2.51
Naphthalene	UG/KG	0 / 17	400	2,500	536	2,002	0.20	1.25	0.27
Nitrobenzene	UG/KG	0 / 7	400	2,100	467	484	0.83	4.34	0.97
Phenol	UG/KG	0 / 17	400	2,500	536	55.4	7.22	45.1	9.68
n-Nitroso-di-n-propylamine	UG/KG	0 / 17	400	2,500	536	130	3.08	19.2	4.13
n-Nitrosodiphenylamine	UG/KG	0 / 17	400	2,500	536	2,321	0.17	1.08	0.23
Bromomethane	UG/KG	0 / 17	12.0	76.0	16.0	69.1	0.17	1.10	0.23
cis-1,3-Dichloropropene	UG/KG	0 / 17	12.0	76.0	16.0	19.4	0.62	3.92	0.82
trans-1,3-Dichloropropene	UG/KG	0 / 17	12.0	76.0	16.0	19.4	0.62	3.92	0.82

Shaded cells indicate ratios > 1

TABLE 6-24
Sample Detection Limit to Screening Value Comparison
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Units	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Mean Concentration	Screening Value	Minimum Ratio	Maximum Ratio	Mean Ratio
Groundwater									
Cyanide	UG/L	0 / 30	5.00	10.0	3.75	1.00	5.00	10.0	3.75
4,4'-DDD	UG/L	0 / 30	0.019	0.25	0.038	0.025	0.76	10.0	1.50
4,4'-DDE	UG/L	0 / 30	0.019	0.25	0.038	0.14	0.14	1.79	0.27
4,4'-DDT	UG/L	0 / 30	0.019	0.25	0.038	0.001	19.0	250	37.5
Aroclor-1016	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1221	UG/L	0 / 30	0.190	5.00	0.700	0.03	6.33	167	23.3
Aroclor-1232	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1242	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1248	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1254	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1260	UG/L	0 / 30	0.190	2.50	0.376	0.03	6.33	83.3	12.5
Aroclor-1262	UG/L	0 / 15	0.190	0.22	0.102	0.03	6.33	7.33	3.41
Aroclor-1268	UG/L	0 / 15	0.190	0.22	0.102	0.03	6.33	7.33	3.41
Dieldrin	UG/L	0 / 30	0.019	0.25	0.038	0.11	0.17	2.27	0.34
Endosulfan I	UG/L	0 / 30	0.009	0.13	0.019	0.0087	1.08	14.9	2.16
Endosulfan II	UG/L	0 / 30	0.019	0.25	0.038	0.0087	2.18	28.7	4.31
Endosulfan sulfate	UG/L	0 / 30	0.019	0.25	0.038	0.009	2.11	27.8	4.17
Endrin	UG/L	0 / 30	0.019	0.25	0.038	0.01	1.90	25.0	3.75
Endrin aldehyde	UG/L	0 / 30	0.019	0.25	0.038	0.01	1.90	25.0	3.75
Endrin ketone	UG/L	0 / 30	0.019	0.25	0.038	0.01	1.90	25.0	3.75
Heptachlor	UG/L	0 / 30	0.009	0.13	0.019	0.0036	2.61	36.1	5.23
Methoxychlor	UG/L	0 / 30	0.094	1.30	0.187	0.03	3.13	43.3	6.23
Toxaphene	UG/L	0 / 30	0.940	13.0	1.87	0.21	4.48	61.9	8.90
alpha-Chlordane	UG/L	0 / 30	0.009	0.13	0.019	0.004	2.35	32.5	4.71
gamma-BHC (Lindane)	UG/L	0 / 30	0.009	0.13	0.019	0.016	0.59	8.13	1.18
gamma-Chlordane	UG/L	0 / 30	0.009	0.13	0.019	0.004	2.35	32.5	4.71
2,4,5-Trichlorophenol	UG/L	0 / 30	4.80	33.0	8.85	12.0	0.40	2.75	0.74
Acenaphthene	UG/L	0 / 30	4.80	13.0	4.42	9.70	0.49	1.34	0.46

Shaded cells indicate ratios > 1

TABLE 6-24
Sample Detection Limit to Screening Value Comparison
Site UXO-04 Expanded Site Inspection
MCB Camp Lejeune
North Carolina

Chemical	Units	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Mean Concentration	Screening Value	Minimum Ratio	Maximum Ratio	Mean Ratio
Anthracene	UG/L	0 / 30	4.80	13.0	4.42	0.18	26.7	72.2	24.5
Benzo(a)anthracene	UG/L	0 / 30	4.80	13.0	4.42	2.20	2.18	5.91	2.01
Benzo(a)pyrene	UG/L	0 / 30	4.80	13.0	4.42	0.96	5.00	13.5	4.60
Benzo(b)fluoranthene	UG/L	0 / 30	4.80	13.0	4.42	0.68	7.06	19.1	6.50
Benzo(g,h,i)perylene	UG/L	0 / 30	4.80	13.0	4.42	0.44	10.9	29.5	10.0
Benzo(k)fluoranthene	UG/L	0 / 30	4.80	13.0	4.42	0.64	7.50	20.3	6.90
Chrysene	UG/L	0 / 30	4.80	13.0	4.42	2.00	2.40	6.50	2.21
Dibenz(a,h)anthracene	UG/L	0 / 30	4.80	13.0	4.42	0.96	5.00	13.5	4.60
Fluoranthene	UG/L	0 / 30	4.80	13.0	4.42	1.60	3.00	8.13	2.76
Hexachlorobutadiene	UG/L	0 / 30	4.80	13.0	4.42	0.32	15.0	40.6	13.8
Hexachlorocyclopentadiene	UG/L	0 / 30	4.80	13.0	4.42	0.07	68.6	186	63.1
Hexachloroethane	UG/L	0 / 30	4.80	13.0	4.42	9.40	0.51	1.38	0.47
Indeno(1,2,3-cd)pyrene	UG/L	0 / 30	4.80	13.0	4.42	0.28	17.1	46.4	15.8
Pentachlorophenol	UG/L	0 / 30	9.50	33.0	10.2	7.90	1.20	4.18	1.29
Phenanthrene	UG/L	0 / 30	4.80	13.0	4.42	4.60	1.04	2.83	0.96
Pyrene	UG/L	0 / 30	4.80	13.0	4.42	0.24	20.0	54.2	18.4
1,2,4-Trichlorobenzene	UG/L	0 / 30	0.50	10.0	2.63	4.50	0.11	2.22	0.58
Ethylbenzene	UG/L	0 / 30	0.50	10.0	2.63	4.30	0.12	2.33	0.61
cis-1,3-Dichloropropene	UG/L	0 / 30	0.50	10.0	2.63	7.90	0.06	1.27	0.33
trans-1,3-Dichloropropene	UG/L	0 / 30	0.50	10.0	2.63	7.90	0.06	1.27	0.33

Shaded cells indicate ratios > 1

Figures

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Legend

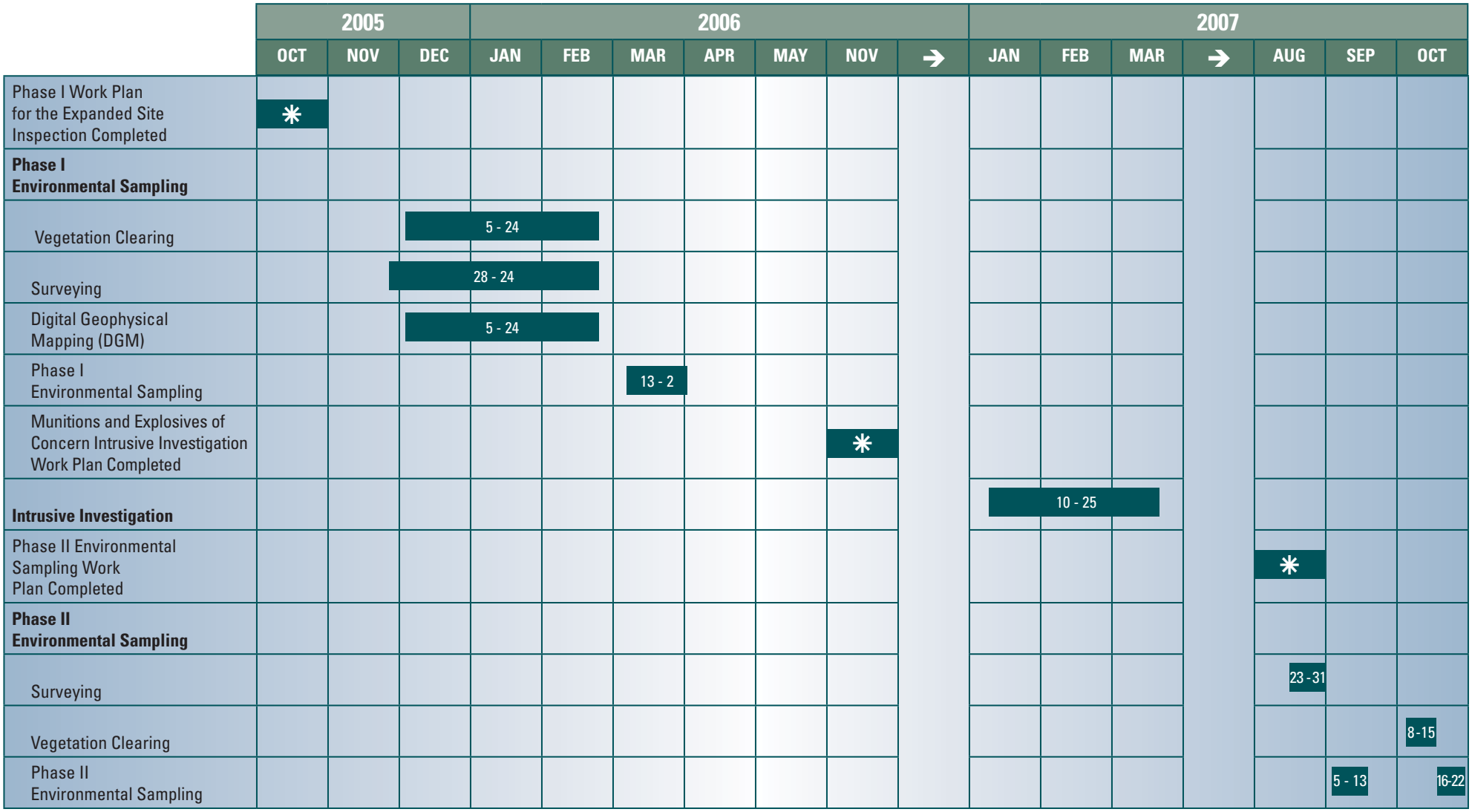
- Highways
- UXO-04 Boundary
- Installation Boundary

N

0 7,500 15,000 30,000 Feet

Figure 1-1
Base Location Map
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



Work Plan Completed

October 2005 - *Phase I Work Plan for the Expanded Site Inspection*
November 2006 - *Munitions and Explosives of Concern Intrusive Investigation*
August 2006 - *Phase II Environmental Sampling*

Note:
Not to Scale

Figure 1-2
ESI Activities Timeline
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

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Legend

UXO-04 Boundary

Former Knox Mobile Home Park

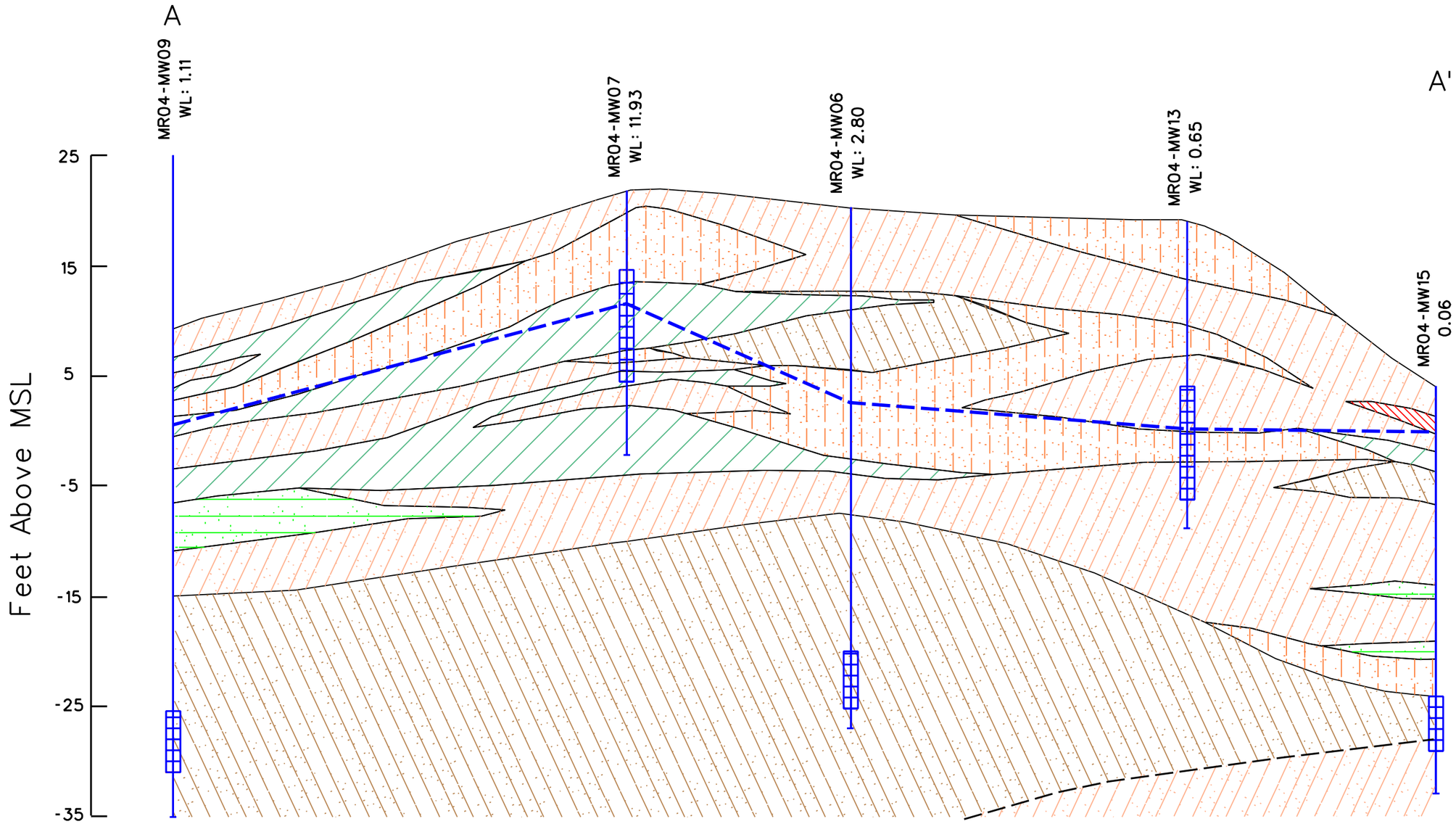
(all structures were removed subsequent to the arial photo used)

N

0 200 400 800 Feet

Figure 2-1
Site Map
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



WELL SCREENED INTERVAL

GROUNDWATER ELEVATION

CLAY (CL)

INORGANIC SLIT (ML)

SILTY SAND (SM)

CLAYEY SAND (SC)

POORLY GRADED SAND WITH OCCASIONAL SILT (SP;SP-SM)

WELL GRADED SAND WITH OCCASIONAL SILT (SW;SW-SM)

HORIZONTAL SCALE: 1"=300'

VERTICAL SCALE: 1"=10'

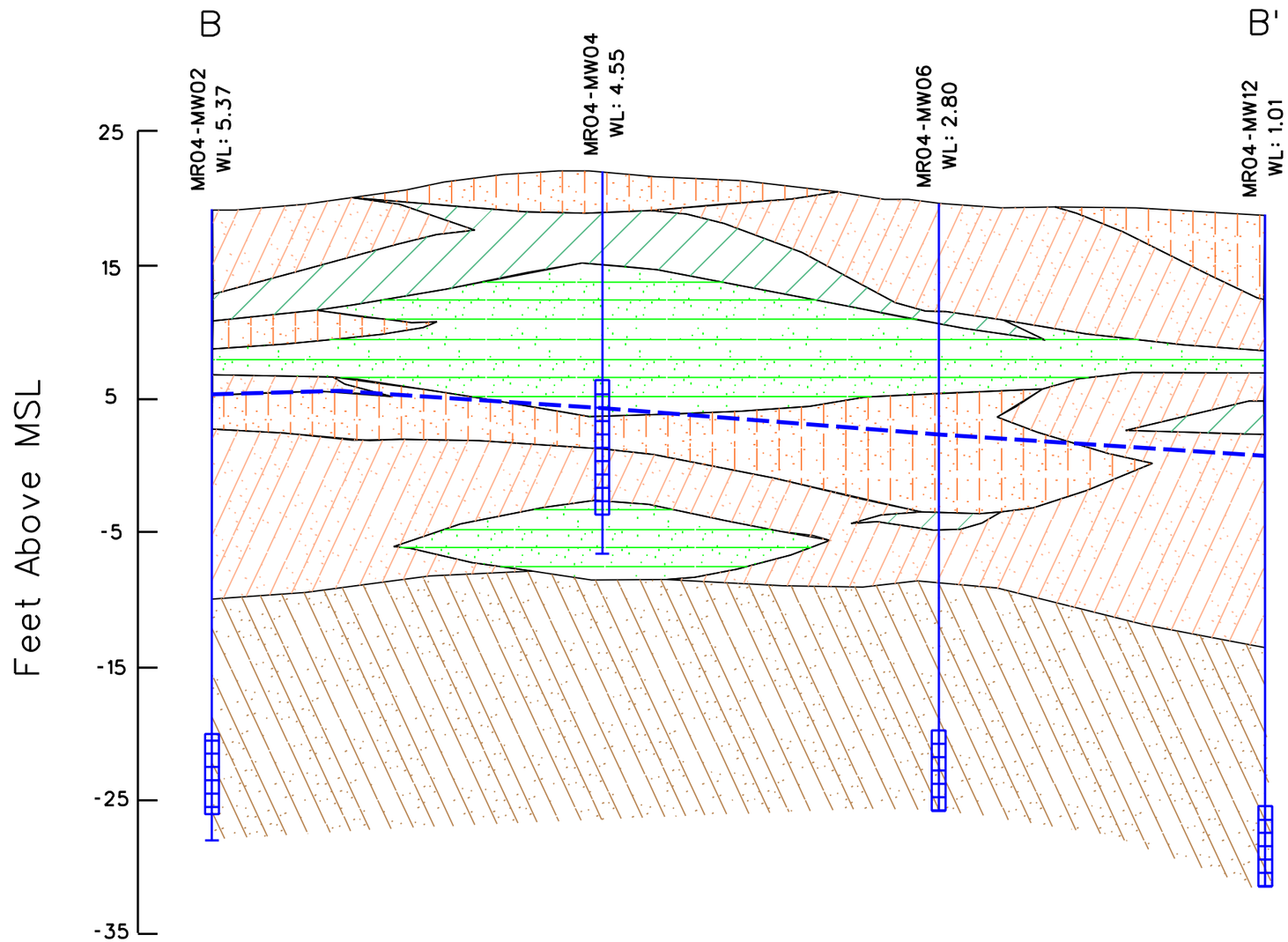
CROSS-SECTION VIEWED TO THE NORTH

WATER LEVEL COLLECTED: MARCH 2006

NOTE:
The depth and thickness of the subsurface lithology indicated on this cross-section were generalized from and interplotated between monitoring well locations. Information on actual conditions applies only to the specific locations.

Figure 2-2
Generalized Geologic Cross-Section A-A'
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



HORIZONTAL SCALE: 1"=300'

VERTICAL SCALE: 1"=10'

CROSS-SECTION VIEWED TO THE EAST

WATER LEVEL COLLECTED: MARCH 2006

NOTE:
The depth and thickness of the subsurface lithology indicated on this cross-section were generalized from and interplotated between monitoring well locations. Information on actual conditions applies only to the specific locations.

CLAY (CC)

INORGANIC SLIT (ML)

SILTY SAND (SM)

POORLY GRADED SAND WITH OCCASIONAL SILT (SP; SP-SM)

WELL GRADED SAND WITH OCCASIONAL SILT (SW; SW-SM)

WELL SCREEN INTERVAL

GROUNDWATER ELEVATION

Figure 2-3
Generalized Geologic Cross-Section B-B'
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

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Legend

- Shallow Monitoring Wells
- Former Knox Mobile Home Park
- UXO-04 Boundary
- Shallow Water Table Contour (feet above mean sea level) - Dashed where inferred
- Estimated Groundwater Flow Direction
- 3.11 Groundwater Elevation (ft amsl)

Note: Water levels were measured April 3, 2006

N

0 200 400 800 Feet

Figure 2-4
Shallow Water Table Contour Map (April 2006)
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

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Legend

- Shallow Monitoring Wells
- Former Knox Mobile Home Park
- UXO-04 Boundary
- Shallow Water Table Contour (feet above mean sea level) - Dashed where inferred
- Estimated Groundwater Flow Direction
- 1.80 Groundwater Elevation (ft amsl)

Note: Water levels were measured September 5, 2007

N

0 200 400 800 Feet

Figure 2-5
Shallow Water Table Contour Map (September 2007)
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

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Legend

- Subsurface Soil Sample Location
- Surface Water/Sediment Sample Location
- Shallow Monitoring Wells
- Deep Monitoring Wells
- UXO-04 Boundary
- Former Knox Mobile Home Park

(all structures were removed subsequent to the arial photo used)

Note: Sample locations shown exclude Phase II surface soil sample locations

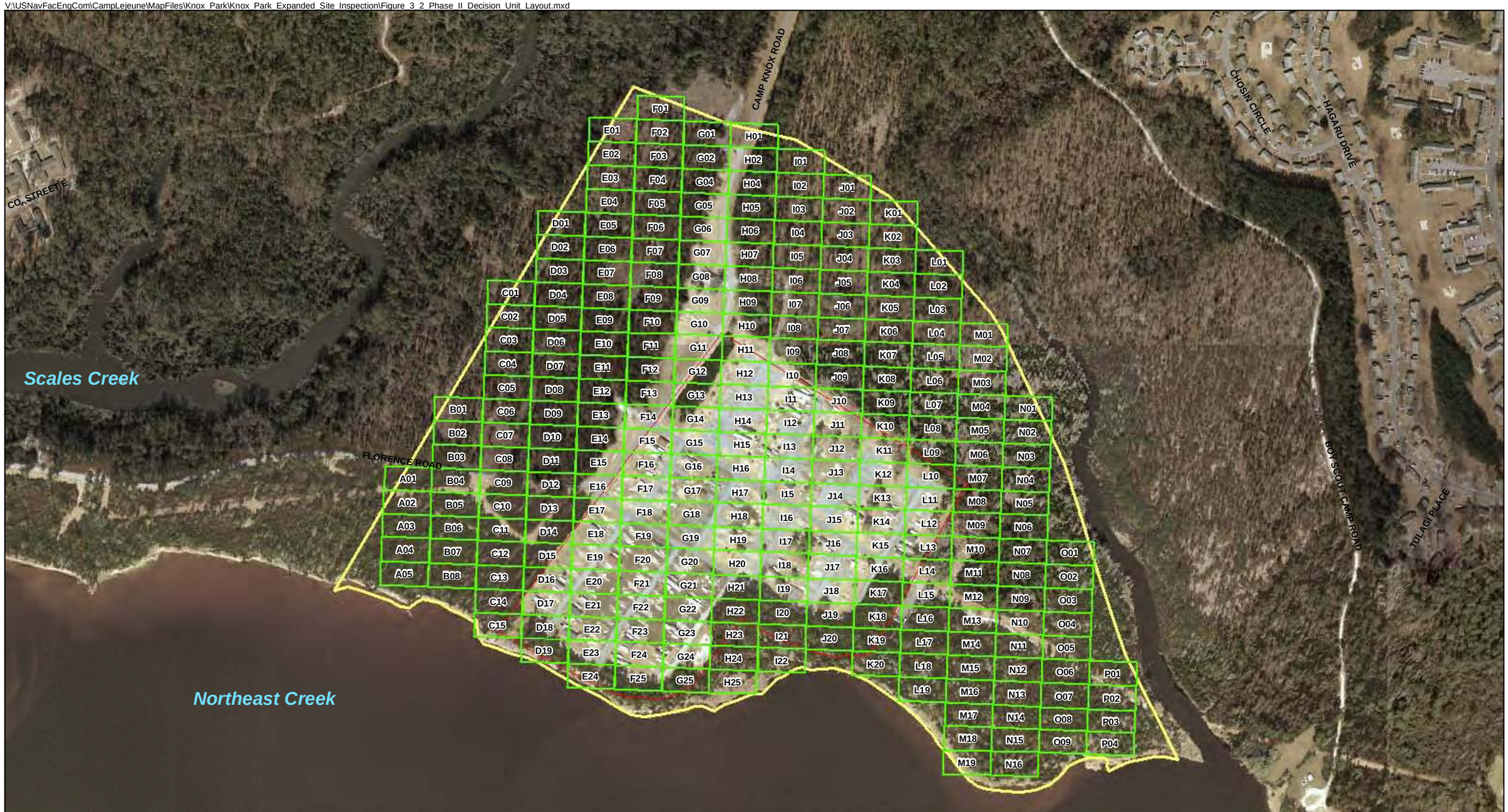
N

0 200 400 800 Feet

Figure 3-1
Phase I and II Environmental Sampling Locations
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

V:\USNavFacEngCom\CampLejeune\MapFiles\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure_3_2_Phase_II_Decision_Unit_Layout.mxd



Legend

- Decision Units - 100 ft X 200 ft
- Former Knox Mobile Home Park
- UXO-04 Boundary

N

0 200 400 800 Feet

Figure 3-2
Phase II Surface Soil Sampling Decision Unit Layout
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

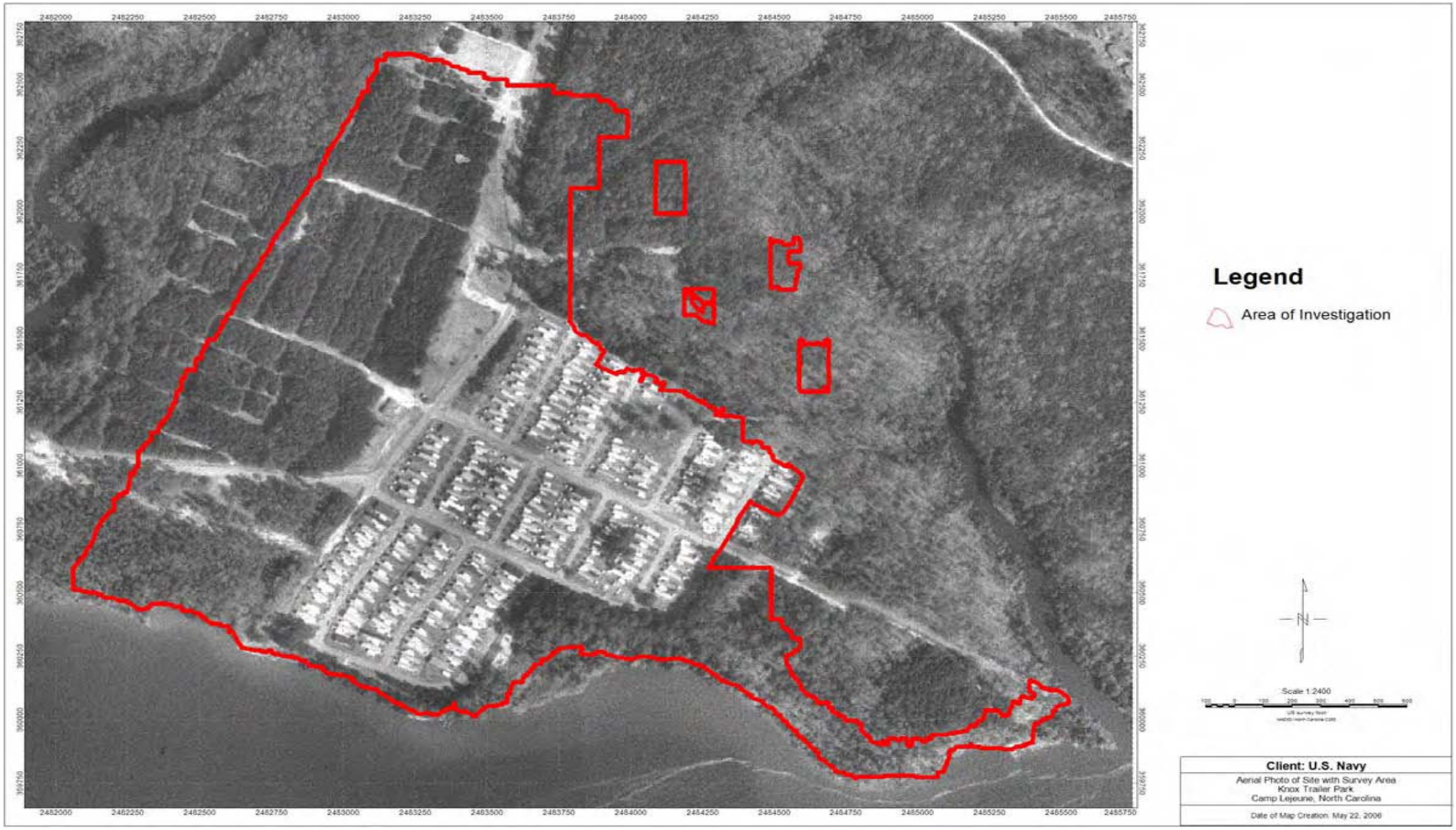


Figure 3-3
DGM Survey Area
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

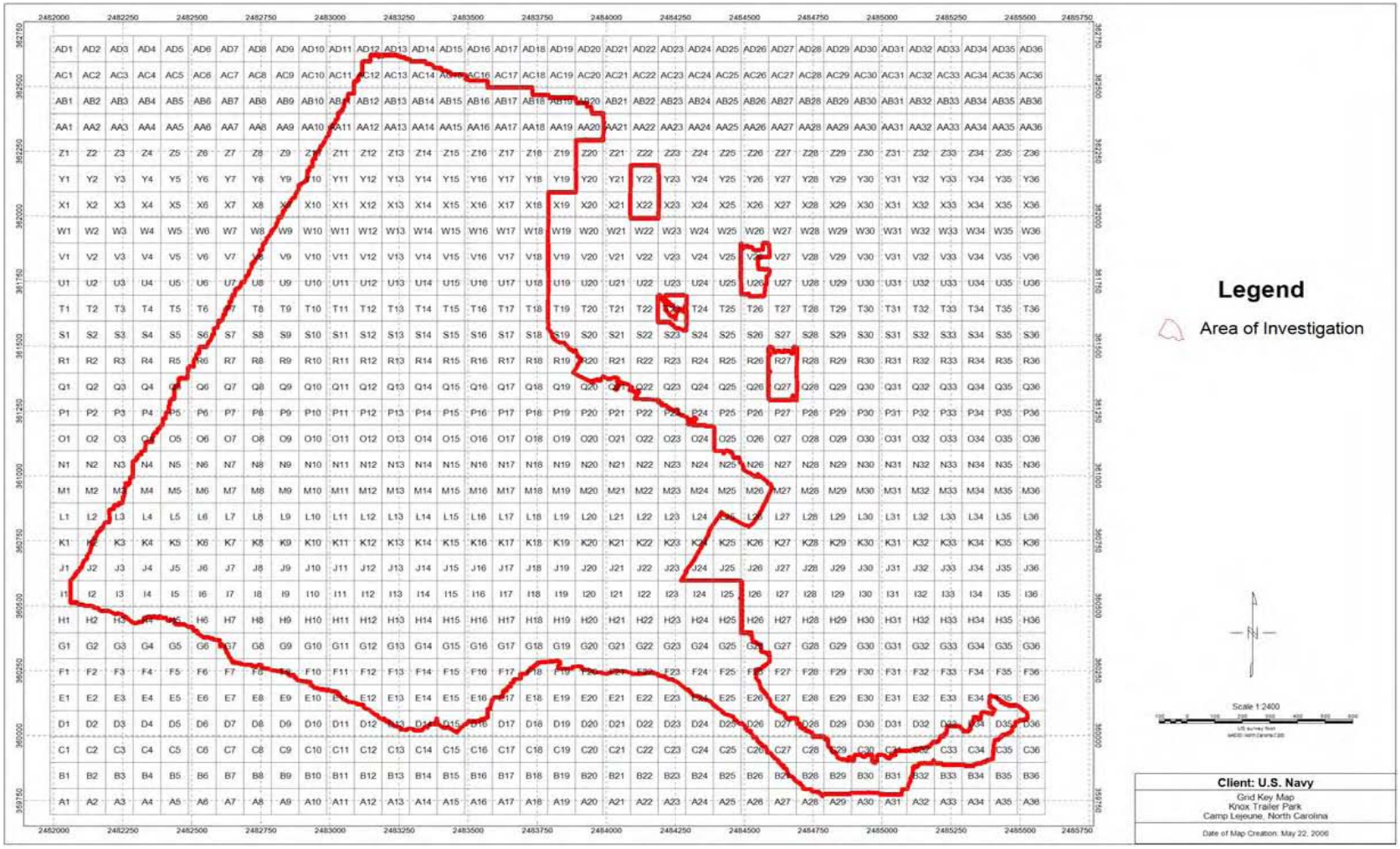


Figure 3-4
DGM Grid Key Map
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

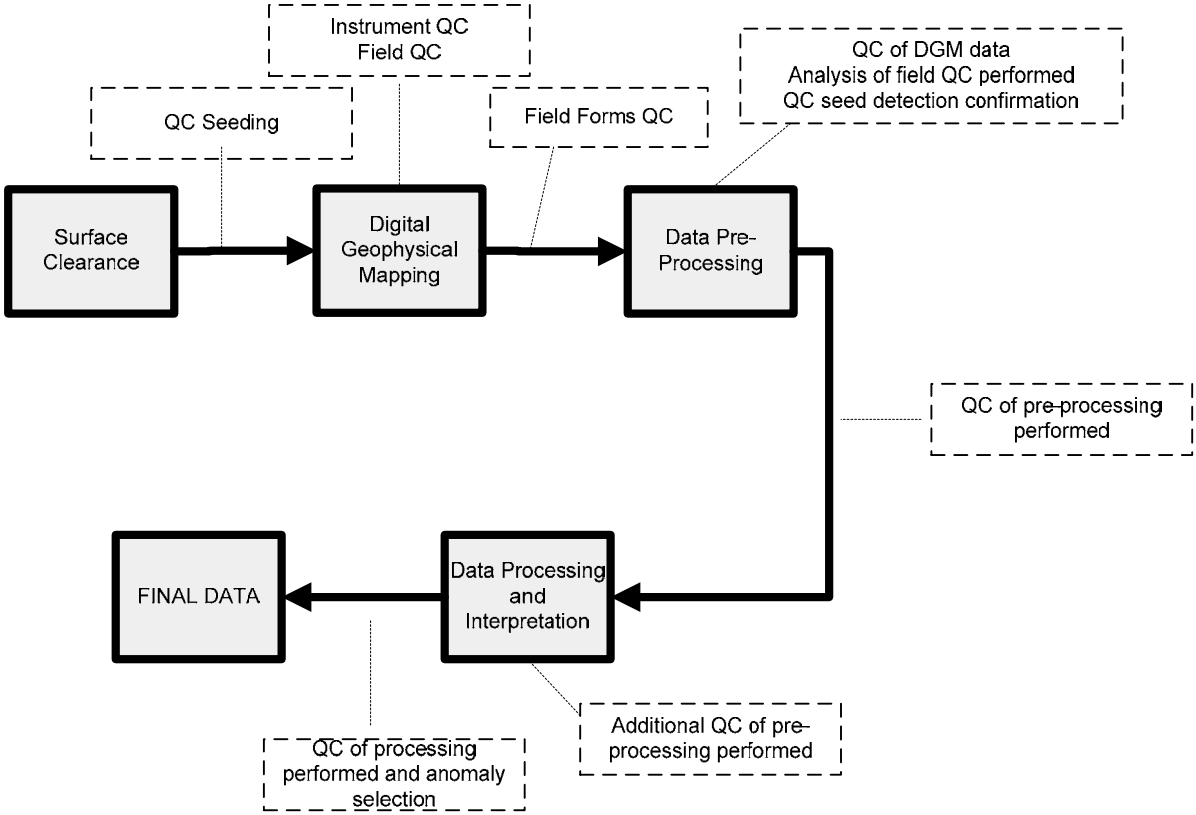


Figure 3-5
Overview of DGM Process QC
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

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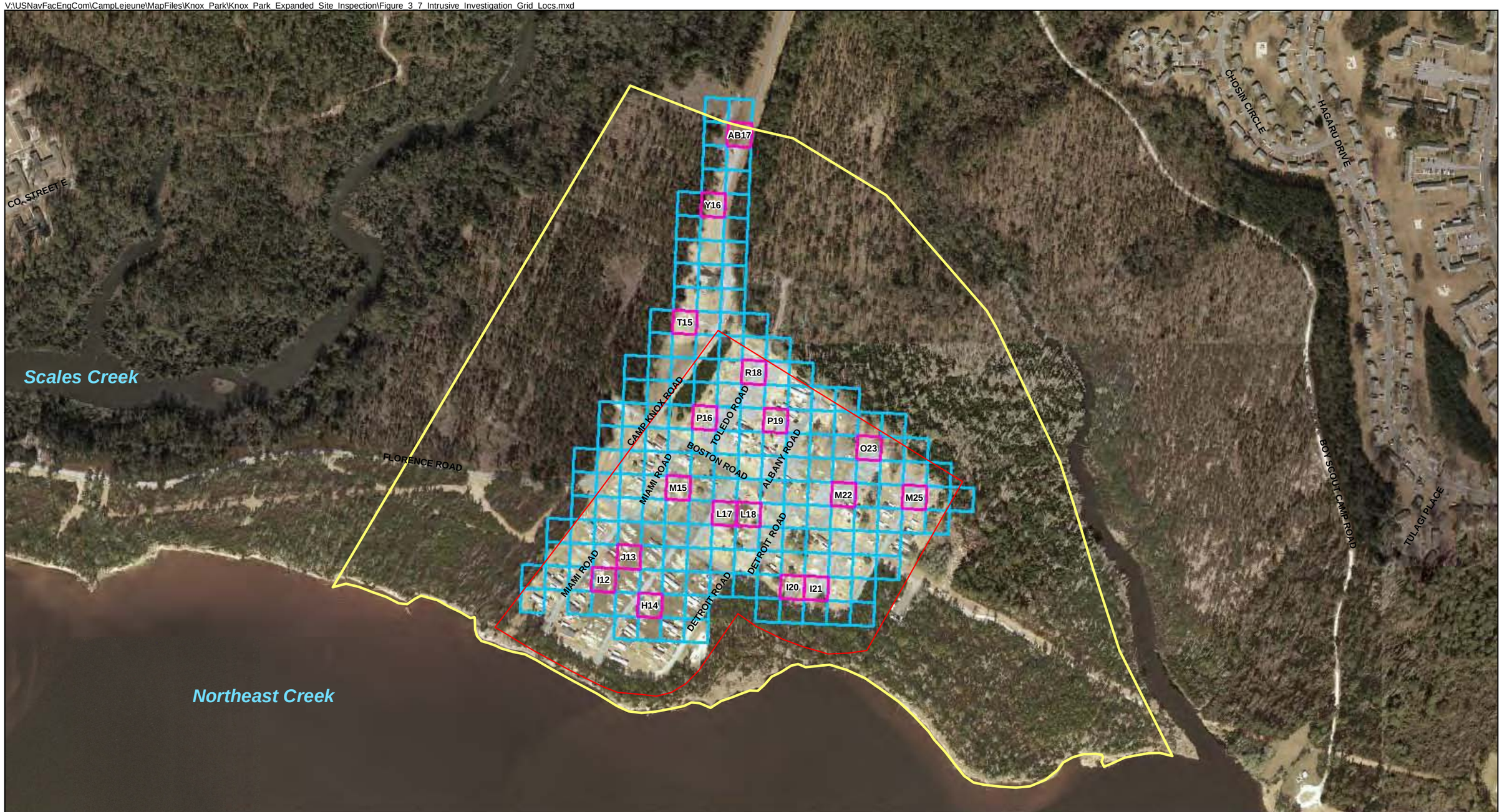


Legend

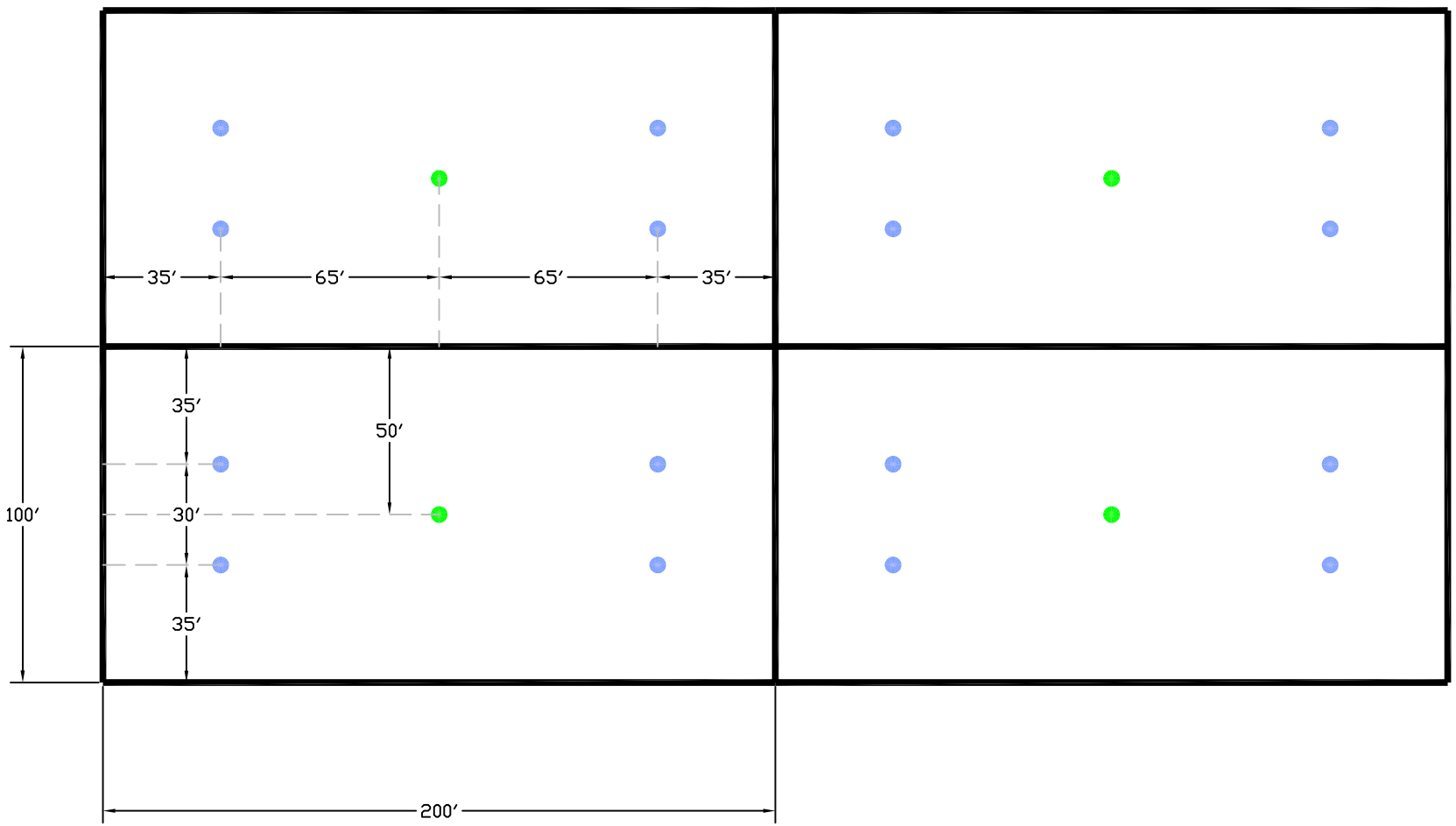
- Towed Array Grids
- Intrusive Investigation Grids
- Former Knox Mobile Home Park
- UXO-04 Boundary

N

0 200 400 800 Feet

Figure 3-6
Intrusive Investigation Grid Locations
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



LEGEND

100 ft x 200 ft DECISION UNIT

SURFACE SOIL SAMPLE INCREMENTS

SURFACE SOIL SAMPLE FOR VOC's AND SURFACE SOIL SAMPLE INCREMENT

NOTES:

1. 5 SAMPLE LOCATIONS PER DECISION UNIT

2. VOC AND ONE SAMPLE INCREMENT WILL BE COLLECTED FROM CENTER LOCATION.

3. REMAINING FOUR SAMPLES INCREMENT WILL BE COLLECTED FROM SURROUNDING LOCATIONS WITHIN DECISION UNIT ACCORDING TO DIMENSIONS SHOWN ABOVE.

N
W E
S

0 50 100
1"=50'

Figure 3-7
Surface Soil Samples in Decision Units
Site UXO-04 Expanded Site Inspection Report
Knox Trailer Park, Site UXO-04
Camp Lejeune, North Carolina

CH2MHILL

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Figure 4-1
Mosaic of Digital Geophysical Mapping Results
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

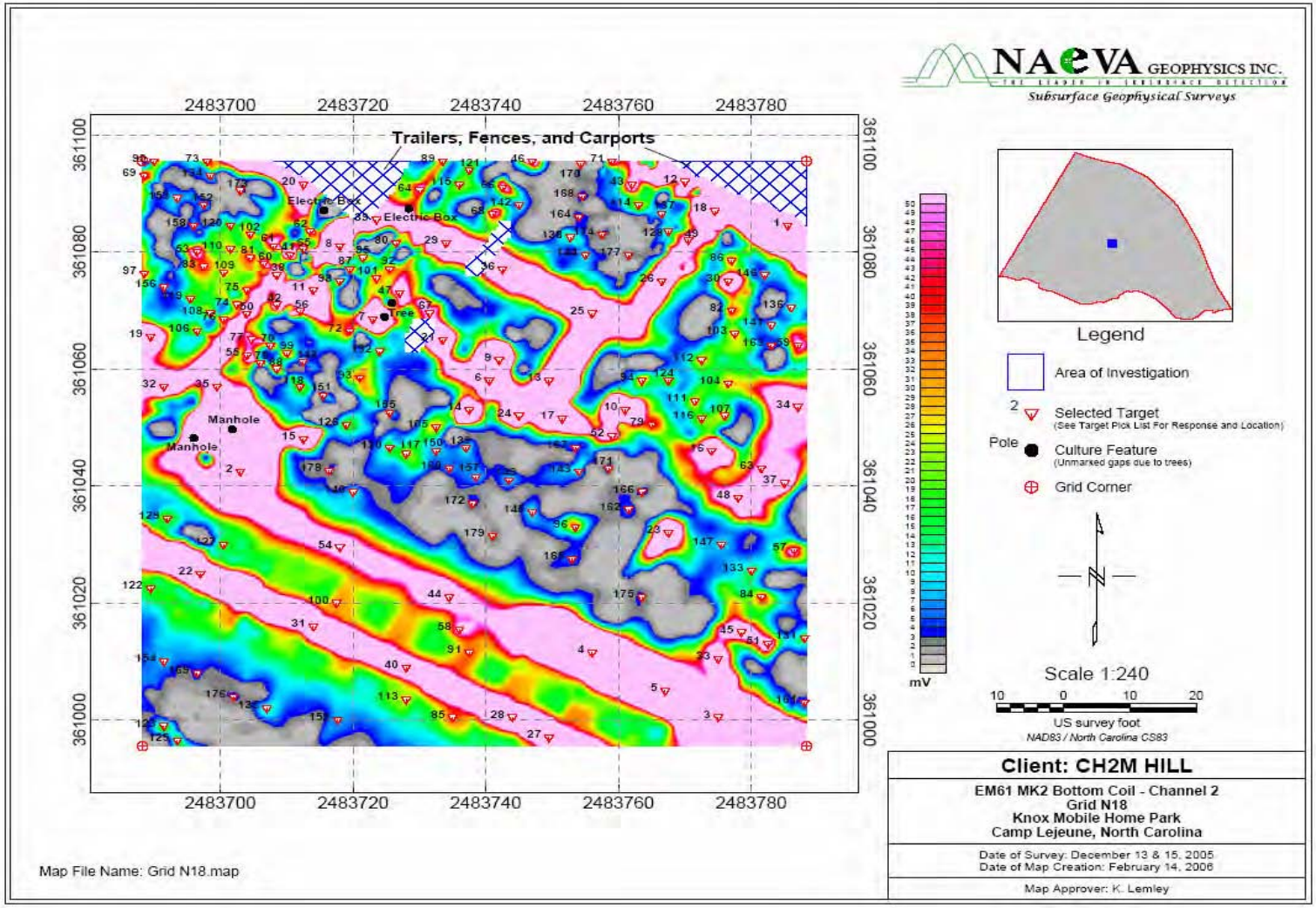
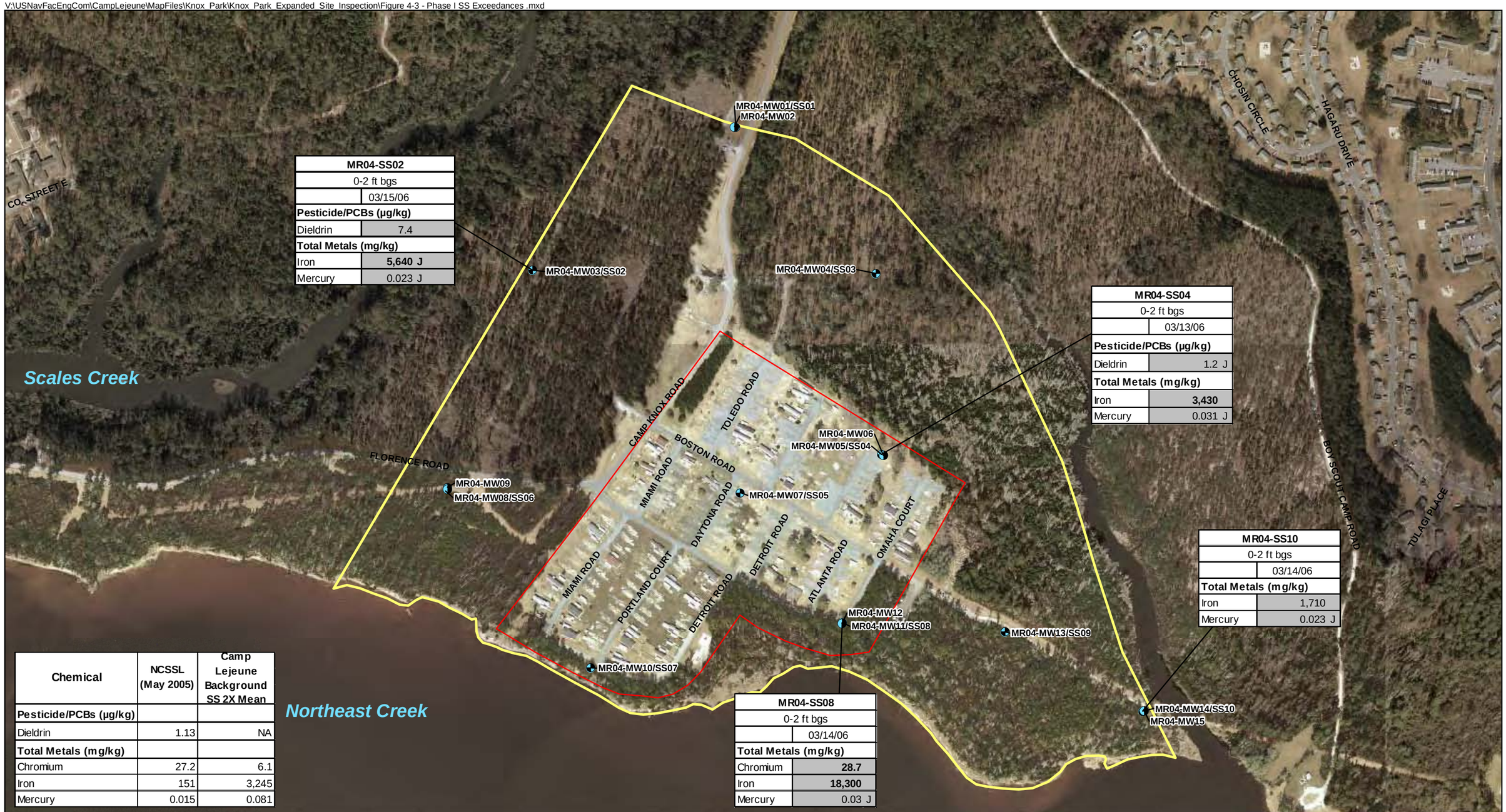


Figure 4-2
Example Individual Grid Map in High Density Anomaly Area of Site
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

V:\USNavFacEngCom\CampLejeune\MapFiles\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure 4-3 - Phase I SS Exceedances .mxd



MR04-SS02	
0-2 ft bgs	
	03/15/06
Pesticide/PCBs (µg/kg)	
Dieldrin	7.4
Total Metals (mg/kg)	
Iron	**5,640 J**
Mercury	0.023 J

MR04-SS04	
0-2 ft bgs	
	03/13/06
Pesticide/PCBs (µg/kg)	
Dieldrin	1.2 J
Total Metals (mg/kg)	
Iron	**3,430**
Mercury	0.031 J

MR04-SS10	
0-2 ft bgs	
	03/14/06
Total Metals (mg/kg)	
Iron	1,710
Mercury	0.023 J

MR04-SS08	
0-2 ft bgs	
	03/14/06
Total Metals (mg/kg)	
Chromium	**28.7**
Iron	**18,300**
Mercury	0.03 J

Chemical	NCSSL (May 2005)	Camp Lejeune Background SS 2X Mean
Pesticide/PCBs (µg/kg)		
Dieldrin	1.13	NA
Total Metals (mg/kg)		
Chromium	27.2	6.1
Iron	151	3,245
Mercury	0.015	0.081

Legend
- Shallow Monitoring Wells
- Deep Monitoring Wells
- Former Knox Mobile Home Park
- UXO-04 Boundary

Notes:
Only exceedances of NCSSL and Base background are shown in this figure.
J- Reported value is estimated
Bold text indicates background exceedances
Shading indicated NCSSL exceedances
* A duplicate sample was collected. Most conservative results shown.

N

0 200 400 800 Feet

Figure 4-3
Phase I Surface Soil Exceedances
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

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\\APHRODITE\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure 4-4 - SB Exceedances.mxd

Chemical	NCSSL (May 2005)	Camp Lejeune Background SB 2X Mean
Pesticide/PCBs (µg/kg)		
Dieldrin	1.13	NA
Total Metals (mg/kg)		
Arsenic	5.24	2.12
Chromium	27.2	14.5
Iron	151	5,439
Mercury	0.015	0.071

Legend

- Subsurface Soil Sample Location
- Shallow Monitoring Wells
- Deep Monitoring Wells
- Former Knox Mobile Home Park
- UXO-04 Boundary

Notes:
Only exceedances of NCSSL and Base background are shown in this figure
J- Reported value is estimated
Shading indicated NCSSL exceedances
Bold text indicates background exceedances
* A duplicate sample was collected. Most conservative results shown

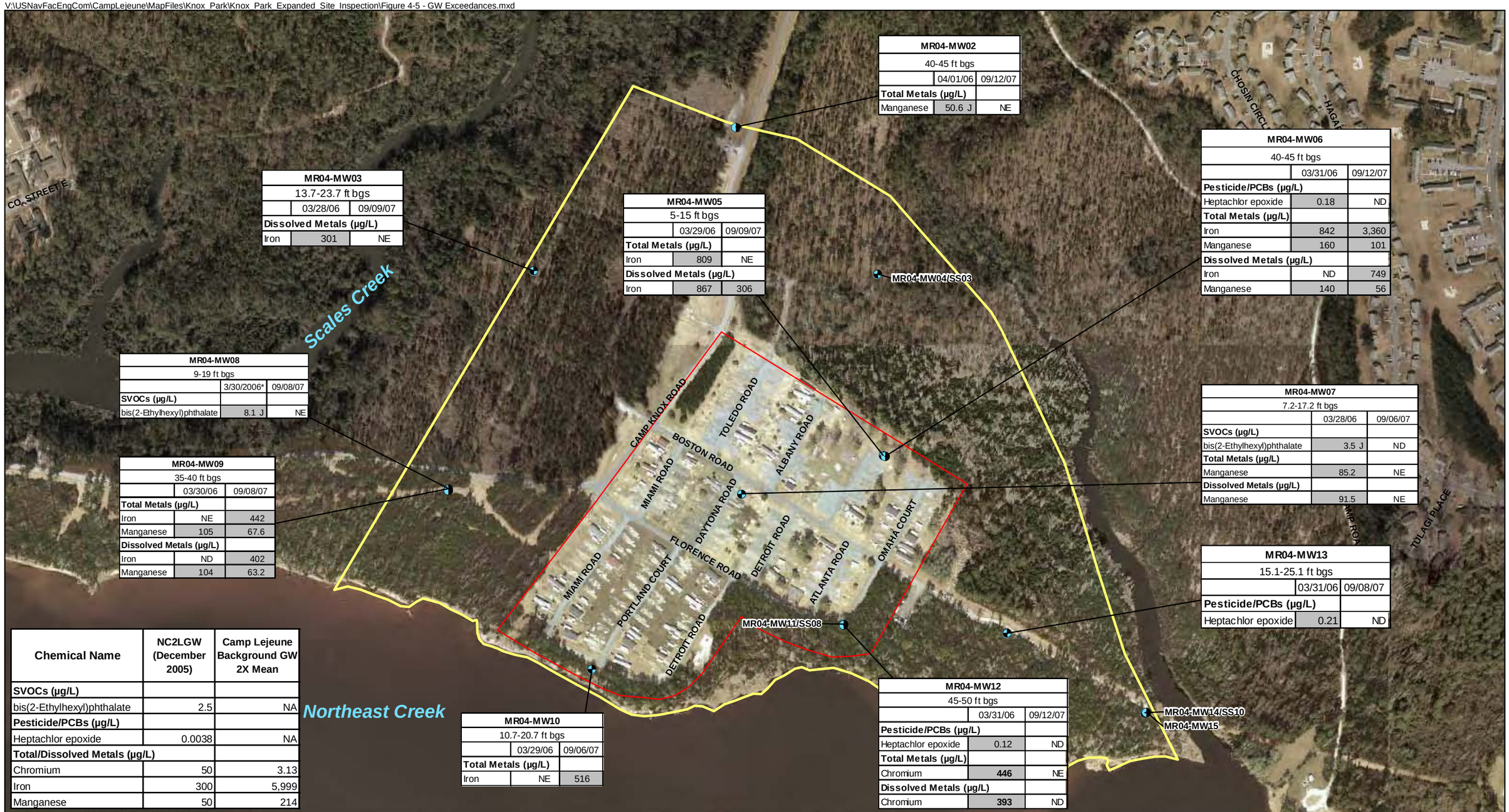
N

0 200 400 800 Feet

Figure 4-4
Subsurface Soil Exceedances
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

V:\USNavFacEngCom\CampLejeune\MapFiles\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure 4-5 - GW Exceedances.mxd



MR04-MW02		
40-45 ft bgs		
	04/01/06	09/12/07
Total Metals (µg/L)		
Manganese	50.6 J	NE

MR04-MW03		
13.7-23.7 ft bgs		
	03/28/06	09/09/07
Dissolved Metals (µg/L)		
Iron	301	NE

MR04-MW05		
5-15 ft bgs		
	03/29/06	09/09/07
Total Metals (µg/L)		
Iron	809	NE
Dissolved Metals (µg/L)		
Iron	867	306

MR04-MW06		
40-45 ft bgs		
	03/31/06	09/12/07
Pesticide/PCBs (µg/L)		
Heptachlor epoxide	0.18	ND
Total Metals (µg/L)		
Iron	842	3,360
Manganese	160	101
Dissolved Metals (µg/L)		
Iron	ND	749
Manganese	140	56

MR04-MW08		
9-19 ft bgs		
	3/30/2006*	09/08/07
SVOCs (µg/L)		
bis(2-Ethylhexyl)phthalate	8.1 J	NE

MR04-MW07		
7.2-17.2 ft bgs		
	03/28/06	09/06/07
SVOCs (µg/L)		
bis(2-Ethylhexyl)phthalate	3.5 J	ND
Total Metals (µg/L)		
Manganese	85.2	NE
Dissolved Metals (µg/L)		
Manganese	91.5	NE

MR04-MW09		
35-40 ft bgs		
	03/30/06	09/08/07
Total Metals (µg/L)		
Iron	NE	442
Manganese	105	67.6
Dissolved Metals (µg/L)		
Iron	ND	402
Manganese	104	63.2

MR04-MW13		
15.1-25.1 ft bgs		
	03/31/06	09/08/07
Pesticide/PCBs (µg/L)		
Heptachlor epoxide	0.21	ND

Chemical Name	NC2LGW (December 2005)	Camp Lejeune Background GW 2X Mean
SVOCs (µg/L)		
bis(2-Ethylhexyl)phthalate	2.5	NA
Pesticide/PCBs (µg/L)		
Heptachlor epoxide	0.0038	NA
Total/Dissolved Metals (µg/L)		
Chromium	50	3.13
Iron	300	5,999
Manganese	50	214

MR04-MW10		
10.7-20.7 ft bgs		
	03/29/06	09/06/07
Total Metals (µg/L)		
Iron	NE	516

MR04-MW12		
45-50 ft bgs		
	03/31/06	09/12/07
Pesticide/PCBs (µg/L)		
Heptachlor epoxide	0.12	ND
Total Metals (µg/L)		
Chromium	**446**	NE
Dissolved Metals (µg/L)		
Chromium	**393**	ND

Legend

- Shallow Monitoring Wells
- Deep Monitoring Wells
- Former Knox Mobile Home Park
- UXO-04 Boundary

Notes:
Only exceedances of NC2LGW and Base background are shown in this figure
J- Reported value is estimated
ND- Not detected
NE- No exceedances
NA-Not available
Shading indicated NC2L exceedances
Bold text indicates background exceedances
* A duplicate sample was collected. Most conservative results shown

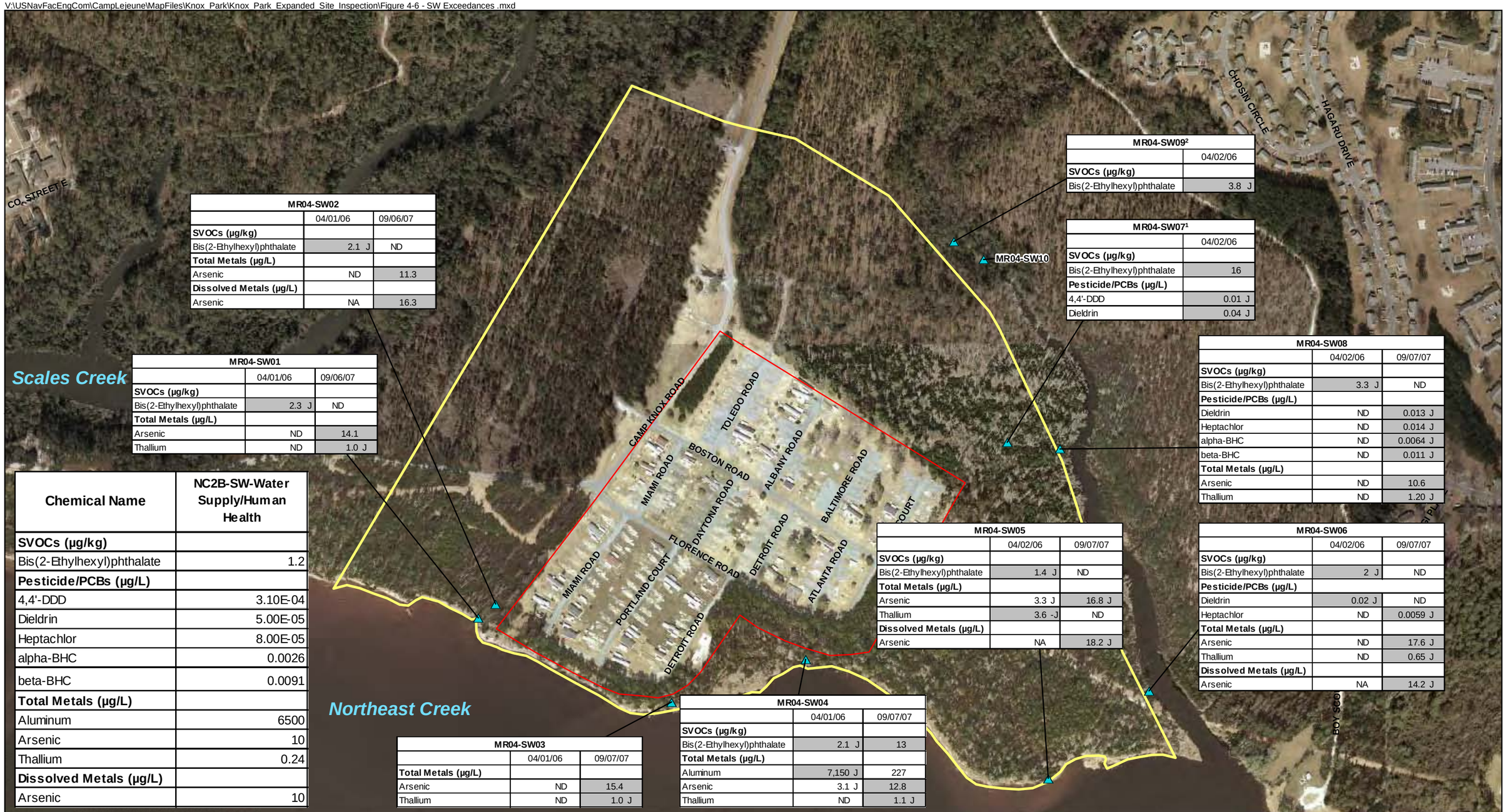
N

0 200 400 800 Feet

Figure 4-5
Groundwater Exceedances
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

V:\USNavFacEngCom\CampLejeune\MapFiles\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure 4-6 - SW Exceedances .mxd



MR04-SW02		
	04/01/06	09/06/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	2.1 J	ND
Total Metals (µg/L)		
Arsenic	ND	11.3
Dissolved Metals (µg/L)		
Arsenic	NA	16.3

MR04-SW01		
	04/01/06	09/06/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	2.3 J	ND
Total Metals (µg/L)		
Arsenic	ND	14.1
Thallium	ND	1.0 J

Chemical Name	NC2B-SW-Water Supply/Human Health
SVOCs (µg/kg)	
Bis(2-Ethylhexyl)phthalate	1.2
Pesticide/PCBs (µg/L)	
4,4'-DDD	3.10E-04
Dieldrin	5.00E-05
Heptachlor	8.00E-05
alpha-BHC	0.0026
beta-BHC	0.0091
Total Metals (µg/L)	
Aluminum	6500
Arsenic	10
Thallium	0.24
Dissolved Metals (µg/L)	
Arsenic	10

MR04-SW03		
	04/01/06	09/07/07
Total Metals (µg/L)		
Arsenic	ND	15.4
Thallium	ND	1.0 J

MR04-SW04		
	04/01/06	09/07/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	2.1 J	13
Total Metals (µg/L)		
Aluminum	7,150 J	227
Arsenic	3.1 J	12.8
Thallium	ND	1.1 J

MR04-SW05		
	04/02/06	09/07/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	1.4 J	ND
Total Metals (µg/L)		
Arsenic	3.3 J	16.8 J
Thallium	3.6 -J	ND
Dissolved Metals (µg/L)		
Arsenic	NA	18.2 J

MR04-SW09[2]	
	04/02/06
SVOCs (µg/kg)	
Bis(2-Ethylhexyl)phthalate	3.8 J

MR04-SW07[1]	
	04/02/06
SVOCs (µg/kg)	
Bis(2-Ethylhexyl)phthalate	16
Pesticide/PCBs (µg/L)	
4,4'-DDD	0.01 J
Dieldrin	0.04 J

MR04-SW08		
	04/02/06	09/07/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	3.3 J	ND
Pesticide/PCBs (µg/L)		
Dieldrin	ND	0.013 J
Heptachlor	ND	0.014 J
alpha-BHC	ND	0.0064 J
beta-BHC	ND	0.011 J
Total Metals (µg/L)		
Arsenic	ND	10.6
Thallium	ND	1.20 J

MR04-SW06		
	04/02/06	09/07/07
SVOCs (µg/kg)		
Bis(2-Ethylhexyl)phthalate	2 J	ND
Pesticide/PCBs (µg/L)		
Dieldrin	0.02 J	ND
Heptachlor	ND	0.0059 J
Total Metals (µg/L)		
Arsenic	ND	17.6 J
Thallium	ND	0.65 J
Dissolved Metals (µg/L)		
Arsenic	NA	14.2 J

Legend
- Surface Water Sample Location
- Former Knox Mobile Home Park
- UXO-04 Boundary

Notes:
Only exceedances of NC2B-SW-Water and Base background are shown in this figure
J- Reported value is estimated
ND- Not detected
NA- Not available
Shading indicated NC2B exceedances
Bold text indicates background exceedances
* A duplicate sample was collected. Most conservative results shown
1 SW07 not able to be sampled in 2007
2 SW09 not able to be sampled in 2007

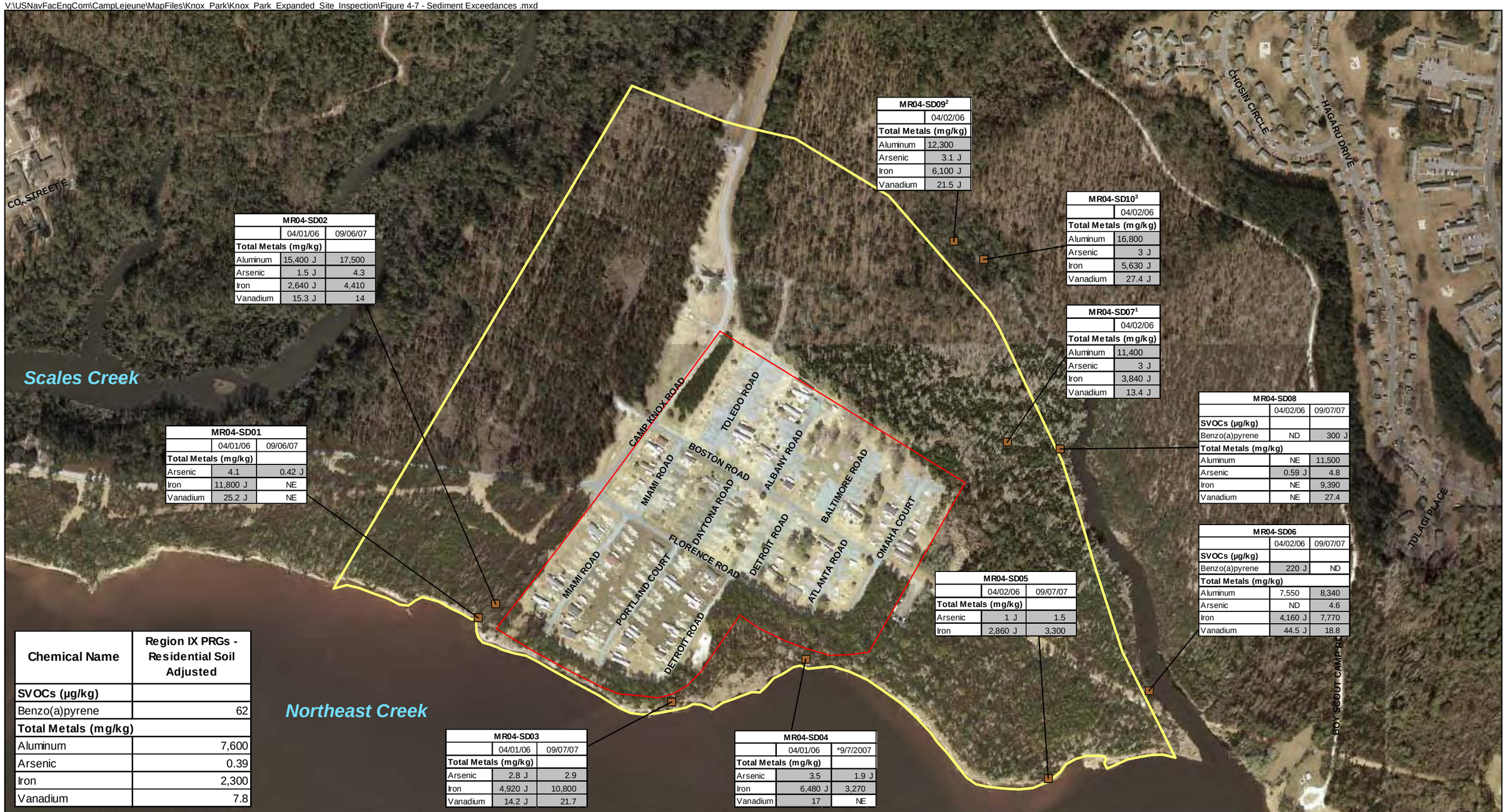
N

0 200 400 800 Feet

Figure 4-6
Surface Water Exceedances
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL

V:\USNavFacEngCom\CampLejeune\MapFiles\Knox_Park\Knox_Park_Expanded_Site_Inspection\Figure 4-7 - Sediment Exceedances .mxd



MR04-SD09[2]	04/02/06
Total Metals (mg/kg)	
Aluminum	12,300
Arsenic	3.1 J
Iron	6,100 J
Vanadium	21.5 J

MR04-SD10[3]	04/02/06
Total Metals (mg/kg)	
Aluminum	16,800
Arsenic	3 J
Iron	5,630 J
Vanadium	27.4 J

MR04-SD07[1]	04/02/06
Total Metals (mg/kg)	
Aluminum	11,400
Arsenic	3 J
Iron	3,840 J
Vanadium	13.4 J

MR04-SD08	04/02/06	09/07/07
SVOCs (µg/kg)		
Benzo(a)pyrene	ND	300 J
Total Metals (mg/kg)		
Aluminum	NE	11,500
Arsenic	0.59 J	4.8
Iron	NE	9,390
Vanadium	NE	27.4

MR04-SD06	04/02/06	09/07/07
SVOCs (µg/kg)		
Benzo(a)pyrene	220 J	ND
Total Metals (mg/kg)		
Aluminum	7,550	8,340
Arsenic	ND	4.6
Iron	4,160 J	7,770
Vanadium	44.5 J	18.8

MR04-SD05	04/02/06	09/07/07
Total Metals (mg/kg)		
Arsenic	1 J	1.5
Iron	2,860 J	3,300

MR04-SD02	04/01/06	09/06/07
Total Metals (mg/kg)		
Aluminum	15,400 J	17,500
Arsenic	1.5 J	4.3
Iron	2,640 J	4,410
Vanadium	15.3 J	14

MR04-SD01	04/01/06	09/06/07
Total Metals (mg/kg)		
Arsenic	4.1	0.42 J
Iron	11,800 J	NE
Vanadium	25.2 J	NE

MR04-SD03	04/01/06	09/07/07
Total Metals (mg/kg)		
Arsenic	2.8 J	2.9
Iron	4,920 J	10,800
Vanadium	14.2 J	21.7

MR04-SD04	04/01/06	*9/7/2007
Total Metals (mg/kg)		
Arsenic	3.5	1.9 J
Iron	6,480 J	3,270
Vanadium	17	NE

Chemical Name	Region IX PRGs - Residential Soil Adjusted
SVOCs (µg/kg)	
Benzo(a)pyrene	62
Total Metals (mg/kg)	
Aluminum	7,600
Arsenic	0.39
Iron	2,300
Vanadium	7.8

Legend

- Sediment Sample Location
- Former Knox Mobile Home Park
- UXO-04 Boundary

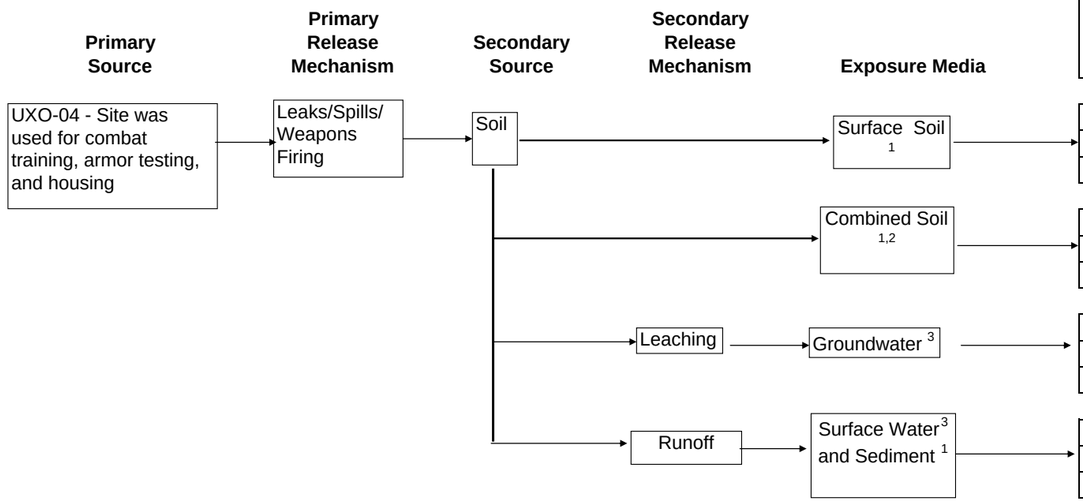
Notes:
Only exceedances of Adjusted Region IX PRGs for Residential Soil and Base background are shown in this figure
J- Reported value is estimated
ND- Not detected
NE- No exceedances
Shading indicated PRGs exceedances
* A duplicate sample was collected. Most conservative results shown
1 SD07 not able to be sampled in 2007
2 SD09 not able to be sampled in 2007
3 SD10 sampling location could not be reached in 2007

N

0 200 400 800 Feet

Figure 4-7
Sediment Exceedances
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



Exposure Route	Potential Human Receptors: Future				Current/Future		
	Residential Adult	Residential Child	Construction Worker	Industrial Worker	Trespasser/Visitor/ Recreational Adult	Trespasser/Visitor/ Recreational Youth	Trespasser/Visitor/ Recreational Child
Ingestion	X	X	X	X	X	X	X
Dermal Contact	X	X	X	X	X	X	X
Inhalation	X	X	X	X	X	X	X
Ingestion	X	X	X	X	NA	NA	NA
Dermal Contact	X	X	X	X	NA	NA	NA
Inhalation	X	X	X	X	NA	NA	NA
Ingestion	X	X	NA	NA	NA	NA	NA
Dermal Contact	X	X	X	NA	NA	NA	NA
Inhalation[4]	X	X	X	NA	NA	NA	NA
Ingestion	NA	NA	NA	NA	X	X	X
Dermal Contact	NA	NA	NA	NA	X	X	X
Inhalation	NA	NA	NA	NA	X	X	X

[1] Only screening level evaluation for surface soil, combined surface and subsurface soil, and sediment.
[2] Combined surface and subsurface soil.
[3] Complete risk evaluation for groundwater and surface water.
[4] Foster and Chrostowski Shower Model used for groundwater inhalation during showering.
NA - Not Applicable or pathway is incomplete
X - Potentially complete exposure pathways

FIGURE 5-1
Conceptual Site Model for HHRA
UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Legend

Habitat

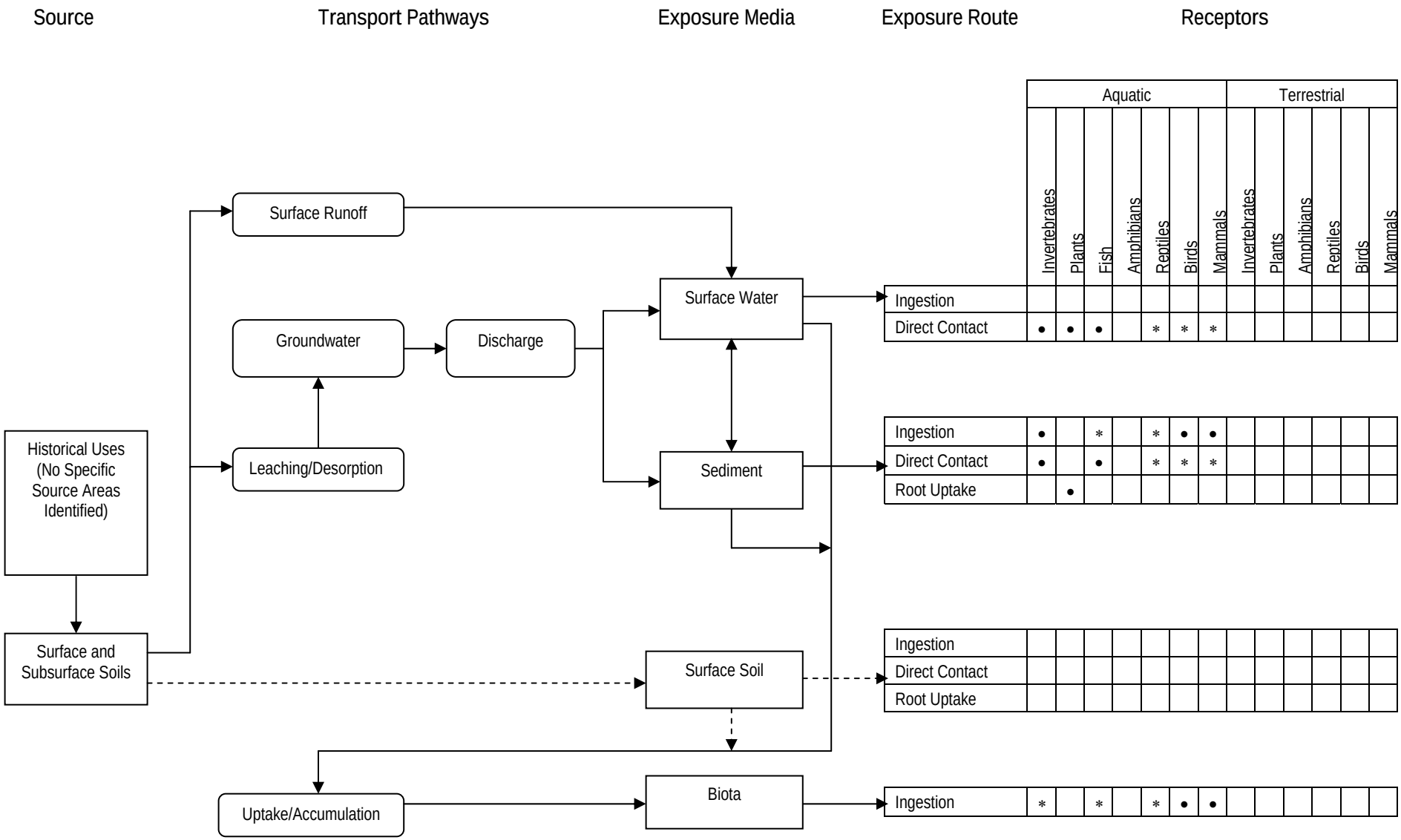
- Evergreen Woods, No Undersfory
- Maintained Grass
- Mixed Forest

N

0 350 700 Feet

Figure 6-1
Current Habitat Conditions
Site UXO-04, Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

CH2MHILL



Historical complete pathway
Current complete pathway
Incomplete pathway

● - Receptor evaluated quantitatively
∗ - Receptor not evaluated quantitatively

Figure 6-2
Preliminary Diagrammatic Conceptual Model
Site UXO-04 Expanded Site Inspection Report
MCB Camp Lejeune
North Carolina

Appendix A
Archival Research Report for the Expanded Site Inspection

Final

Archival Records Search Report for the Expanded Site Investigation

Knox Trailer Park
MCB Camp Lejeune, NC

Contract Task Order 109
October 2005

Prepared for

Department of the Navy
Atlantic Division
Naval Facilities Engineering Command

Under the

LANTDIV CLEAN III Program
Contract N62470-02-D-3052

Prepared by

CH2MHILL

Herndon, Virginia

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Attachments

1 Resource Review Summary

2 Photo Log: Aerial Photographs
Maps
Property Tract Photographs

Acronyms and Abbreviations

°F	degrees Fahrenheit
asl	above sea level
CCC	Civilian Conservation Corps
CTO	Contract Task Order
DMM	Discarded Military Munitions
EOD	Explosive Ordnance Disposal
ESI	Expanded Site Investigation
HTW	hazardous and toxic wastes
LANTDIV	Atlantic Division
MCB	Marine Corps Base
MEC	munitions of explosive concern
NARA	National Archives and Records Administration
NAVFAC	Naval Facilities Engineering Command
NMFRL	Naval Medical Field Research Laboratory
PA	preliminary assessment
TNT	2,4,6-trinitrotoluene
UXO	unexploded ordnance
WWII	World War II

SECTION 1

Introduction, Purpose, and Scope

An Expanded Site Investigation (ESI) is currently underway at the Knox Trailer Park, Marine Corps Base (MCB) Camp Lejeune, North Carolina, under the Navy CLEAN III Contract N62470-02-D-3052, Contract Task Order (CTO) 109, for the Naval Facilities Engineering Command (NAVFAC), Atlantic Division (LANTDIV). The results of the ESI will determine if the property can be used for residential development. To support the ESI effort, this archival records search report has been prepared to provide a narrative of the historical activities at the project area that may have resulted in environmental contamination with munitions of explosive concern (MEC) and/or hazardous and toxic wastes (HTW). The site has been identified as a former hand grenade training range and may contain ordnance materials.

The archival records search report is 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, specifically MEC or HTW. The scope of the report includes:

- A review of existing information about the site (including MCB Camp Lejuene maps, drawings, and reports, and interviews with MCB Camp Lejuene personnel).
- A site and environs reconnaissance.
- Collection of additional information about the site.

A complete listing of resources identified and investigated for this report is provided in Attachment 1. Attachment 1 also includes details concerning the reviews of the historical information from the Marine Corp Library, National Archives and Records Administration (NARA) map and text files, and Camp Lejeune base files. Attachment 2 contains photographs obtained during the research activities.

SECTION 2

Background Information

2.1 Facility Information

MCB Camp Lejeune is located on the Atlantic coast in Jacksonville, North Carolina (refer to Figure A-1). The city of Jacksonville in Onslow County is the principal support community for the base. MCB Camp Lejeune occupies 153,439 acres including more than 450 miles of roads, 6,946 buildings, and facilities 14 miles of beach on the Atlantic Ocean for amphibious training (Department of the Navy, July 2005, OCS Website, 2005). Originally established in 1941, the base is home to Marine Expeditionary Force units and includes six major Marine Corps commands, two Navy commands, one Coast Guard command, and is home to several Marine Corps Formal schools. MCB Camp Lejeune supports a total population of approximately 138,000 people, to include 37,221 active duty military and 53,614 military dependents. In addition, the base employs 4,883 civilian employees and supports 42,562 military retirees and their dependents located in the region (Department of the Navy, July 2005). The base is bisected by the New River, which branches off to the northeast into the Northeast Creek. Knox Trailer Park is situated in the north central portion of the base along the Northeast Creek, just west of Camp Johnson (refer to Figure A-1)

2.1.1 Site Conditions

The mobile home park (i.e., trailer park) is located along the eastern side of Camp Knox Road (refer to Figure A-2) and serves as a residential area for enlisted personnel (John Jordan, 2005). Woodlands surround the property to the north, east, and west. The northern 1/3 of the property has been cleared of trees while the remaining 2/3 of the property is woodland. Most of the forested areas have light to moderate undergrowth and are easily traversed, although part of the land has dense undergrowth that is difficult to penetrate (CH2M HILL, July 2005).

As part of the ongoing Housing Privatization project, a 69-acre parcel has been allocated as the Knox Trailer Park Expansion Area. The expansion area is located immediately north of the trailer park on the west side of Camp Knox Road (Baker, November 2004). North Carolina Route 24 is located approximately 400 feet to the north of the expansion area (Department of the Navy, July 2005). The Tarawa Terrace housing area is located to the east of the Knox Trailer Park.

2.1.2 Climate and Meteorology

The climate in the MCB Camp Lejeune area is characterized by mild winters and hot humid summers. Winters are usually short and mild with occasional and short duration cold periods. Summers are long, hot, and humid. Average annual net precipitation is approximately 50 inches. Ambient air temperatures generally range from 33 degrees to 53 degrees Fahrenheit (°F) in the winter months, and 71°F to 88°F during the summer months. Winds are generally south-southwesterly in the summer, and north-northwesterly in the winter (Water and Air Research, 1983). The hurricane season in the immediate area

surrounding MCB Camp Lejeune begins on June 1 and continues through November 30. Storms of non-tropical origins such as frontal passages, local thunderstorms, and tornadoes are more frequent and can occur year-round.

2.1.3 Topography, Geology and Hydrology

The aesthetic environment in and around Knox Trailer Park is characterized by flat topography with minimal slopes. The housing area is situated in an open field (Department of the Navy, July 2005) and is relatively secluded from other areas.

The land surface at MCB Camp Lejeune has been alternately exposed and submerged over time by water and marine deposits from an ancient inland sea. These deposits were laid down to form the weakly dissected alluvial plane. The deposits are mostly sands layered with clay and marine shells. Elevations range from 0 feet above sea level (asl) at the waterways to 72 feet asl between the New River and US Rte 17. MCB Camp Lejeune consists of both broad, level flatlands and gently rolling hills.

Nearly 30 percent of the soils at MCB Camp Lejeune are considered hydric. Leon fine sand, Mukalee Loam, and Murville fine sand are the most common hydric soils. Baymeade fine sand, a non-hydric soil, is the most prevalent soil type at the installation and encompasses 18 percent of the land (Department of the Navy, July 2005).

A soil survey for Onslow County indicates that the Baymead Foreston Stallings soil association is predominant in the Camp Johnson portion of Camp Lejeune. This association is typically found on level to gently sloping areas and ranges from somewhat poorly to well-drained with loamy subsoil throughout. Four soil map units are mapped in the study area. They are: Baymeade-Urban Complex, 0 to 6 percent slopes (BmB), Baymeade fine sand 0 to 6 percent slopes (BaB), Wando fine sand 1 to 6 percent slopes (WaB), and Craven fine sandy loam (CrC), 4 to 8 percent slopes. The affected soil map units have not been classified either as hydric soils or prime farmland by the Natural Resources Conservation Service (MCB Camp Lejeune, July 2002). Most soils within this area have been previously disturbed due to a history of intensive use.

Surface water drainage in the project vicinity is carried by a dendritic system of small, permanent and intermittent, unnamed streams, with associated floodplains of various widths. These streams flow into Scales Creek, Northeast Creek, and/or New River. New River flows into the Atlantic Ocean via New River inlet (MCB Camp Lejeune, July 2002).

2.2 Ownership and Operational History

2.2.1 Ownership History

The history of the land now occupied by Camp Lejeune 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. Prior to the Marines occupation, 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 website, July 2005).

The initial land transferred to the government was acquired in 14 different transactions between April and October 1941 and totaled 173.8 square miles or 111,155 acres, of which there were 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. The Knox Trailer Park area is located in Area A, which extended from Wilson Bay in the west, covering Montford Point (now Camp Johnson), to Tarawa Terrace in the east. Area A included 65 tracts of land and was one of the first parcels to be acquired. The current Knox Trailer Park appears to have been located in tract A-12, and possibly into tract A-11, as shown in the 1941 Property Map for Area A (John Jordan, 2005, MCB New River, April 1941). At the time of purchase in March 1941, tract A-12 was owned by W.H. Humphrey and the land contained a cabin, smokehouse, barn, and pier. Photographs of tract A-12 and surrounding properties at time of purchase are contained in Attachment 2. Mr. Humphrey also claimed ownership for Tract 11, which contained similar buildings as well as a garage, outhouse, and shack (Dept of the Navy, March 25, 1941 and March 27, 1947). The facility at that time was known as Marine Barracks New River, N.C. and was changed to MCB Camp Lejeune in 1942 (Global Security website, July 19, 2005).

2.2.2 Operational History

Following the acquisition of Area A, the Civilian Conservation Corps (CCC) established a camp in the area now occupied by the Knox Trailer Park. The camp is estimated to have been in operation from July 1941 to June 1942, with approximately 155 enrollees (Kimball, 2005). The camp encompassed one block and included administrative and housing facilities, a blacksmith shop and an incinerator as shown on the site development plan for the CCC camp (Kimball, 2005, MBNR, July 1941). Materials burned in the incinerator were unable to be determined during the archival research activities. Camp personnel assisted with road work, forestry, and other phases of developing the land into a modern military post (Carraway, 1946).

Another function of the CCC camp at Camp Lejeune (in conjunction with the Malaria Control Detachment of the Marines) was to eliminate the source of endemic malaria by draining all surrounding wetlands. This was accomplished by ditching, use of dynamite, and by spraying diesel oil on water surfaces as a larvacide. Approximately 140,000 gallons of waste oil was spread on base water surfaces over a 2-year period (1941-43). As Scales Creek is the nearest water source to the camp, it is considered a likely target of oil spraying. Records from June 1941 indicate that the oil spraying occurred every 2 weeks for a period and then every 3 weeks (Kimball, 2005).

In August 1942, Black Marines began to arrive at Montford Point and soon outgrew the facilities there. As a result, the CCC Camp, which was then renamed Camp Knox, was enlarged in March 1943 to accommodate 1,000 Black Marines from Montford Point. The expansion now included Blocks D-E (Kimball, 2005). A 1947 General Area Map references the two CCC camps, which could be the additional blocks that were added during the expansion (NACP, March 1947).

In November 1942, the area was the headquarters of the War Dog Training Company. The facility was redesignated as the War Dog Training School in January 1943 (Louis Berger

Group, 2002). It appears that the Black Marines and dog school occupied the area concurrently (Kimball, 2005). The Camp Knox area and dog training area are shown on 1942 and 1943 maps (MBNR, January 1943, NACP, 1942). The training School had been re-located from Quantico Bay, Cuba to Camp Knox (K-9 History, 2005). According to one source, the training school sat on a bluff overlooking the north fork of the New River (Putney, 2001). Additionally, the current site of Tarawa Terrace II was also used as a training area for the War Dog Training School (Louis Berger Group, 2002).

During WWII, seven Marine War Dog Platoons were trained at Camp Knox. The majority of the dogs were Doberman Pinschers, though German shepherds, Labrador retrievers, and other breeds also served (Louis Berger Group, 2002). Just over 1,000 dogs were processed at the base, with over 450 actually being trained (Carraway, 1946). The dogs first underwent a six-week basic training where dogs were taught to heel, down, crawl, come, or stay on both voice commands and arm and hand signals (K-9 History, 2005).

Following basic training, the dogs were divided up for specialized training as scouts, messengers, sentry duty, or search and rescue duty (Louis Berger Group, 2002). Scout dogs were trained to alert the troops of the enemy, but not to bark and alert the enemy; guard prisoners; provide night security in foxholes and outpost; enter caves and pillboxes to determine presence of enemy. Detection of strangers was signaled by the dogs in ways other than barking (K-9 History, 2005, Putney, 2001). Messenger dogs were taught to carry messages, ammunition, and or special medical supplies from one handler to the other handler, avoiding all other persons. They were subjected to overhead rifle and machine gun fire and explosions of charges of dynamite and 2,4,6-trinitrotoluene (TNT) to simulate as nearly as possible actual battle field conditions (K-9 History, 2005).

Sentry dogs were trained to warn (fixed) troops of the approach or the nearness of any other people by barking. Not many sentry dogs were trained by the Marines (K-9 History, 2005). Search and rescue dogs were trained to help locate wounded soldiers (Carraway, 1946). There were also mine dogs trained detection of mines, trip wires, booby traps, and other explosive devices buried or hidden from view (Putney, 2001).

The dogs and handlers were exposed to explosives typically found in a combat environment on a weekly basis. Explosives used during training included Dago bombs and quarter cans of TNT (Putney, 2001).

The War Dog Training School was terminated in August 1945. The dog detachment continued to perform limited activities until October 1946 for the demobilization of war dogs returning from overseas (Louis Berger Group, 2002).

Historical inspection records indicate that approximately 2,000 troops could be housed in buildings in Camp Knox (NACP, June 20, 1945). The buildings reported to be in Camp Knox in 1945 included 5 wooden huts and one wooden mess hall in poor condition (NARA, December 1945). The mess hall had a 200 person capacity. Temporary warehouses and storerooms constructed of sheet metal were also reported to have been at Camp Knox. Combat Dog Training was noted as a specialist school, though no classes were in session during the December 1945 inspection (NARA, December 1945).

During WWII, there was increased research into the use of body armor to protect the troops from serious injury. Body armor was recommended to the Marine Corps for use in the

summer of 1944 and adopted in the spring of 1945. In March 1945 an informal Navy-Marine board met at Camp Lejeune to test the mobility and maneuverability of troops wearing the armor. Testing was suspended with the end of WWII, but was resumed at Camp Lejeune in 1947 (Montrose, 1955). Photographs of the area in 1948 are provided as Photographs 1-4 in Attachment 2. While most of the testing occurred at the Naval Medical Field Research Laboratory (NMFRL), other body armor research facilities were located in Camp Knox, as shown on a 1949 Index Sheet drawing (MCB Camp Lejeune, January 1949). Specific buildings indicated as Body Armor Research facilities were D-22, which was the former hospital at the dog training area and D-23, former dog kennel (MCB Camp Lejeune, January 1949a, MBNR, January 1943). Building E-1 was also identified as a former mess converted to a testing laboratory (MCB Camp Lejeune, January 1949b, MBNR, May 1943).

While the specific testing at the Camp Knox research facilities has not been determined, it is known that the body armor, similar to a vest, was made of a light-weight glass-fabric-plastic laminate, bonded at high pressure and designed to stop most of the artillery, mortar and grenade fragments that caused two-thirds of all serious infantry casualties. The body armor was able to resist impact from .22 and .45 caliber automatic pistol bullets or Reising and Thompson sub-machine bullets at a distance of 15 feet. Additionally, tests showed that the armor stopped all fragments from a detonated hand grenade (TNT-loaded) at a distance of 3 feet (Montrose, 1955). The research facilities at Camp Knox most likely fired ball-type ammunition at the vests. The firing was most likely done inside based on historical photographs and it is not thought that a significant amount of ammunition was expended for testing purposes (Kimball, 2005).

Testing and development continued at the NMFRL throughout the Korean War until the cease fire was called in July 1953 (Montrose, 1955).

The onset of the Korean War brought additional personnel to Camp Lejuene and prompted the base to build new housing including converting Camp Knox to a trailer park in 1952 (Louis Berger Group, 2002, John Jordan, 2005). In 1953, the base acquired 1,150 new trailers to be placed in Camp Knox and Camp Geiger (Louis Berger Group, 2002). The original trailers were owned by the government, though in 1974 and 1985, the area was expanded and allowed for privately owned trailers (John Jordan, 2005). Photographs showing the area conditions in 1951 and 1954 are provided as Photographs 5 and 6 in Attachment 2. The area has continued to operate as a trailer park to the present time.

In the 1974-1976 timeframe, an EOD technician, Mr. Don Cifelli, responded to the discovery of UXO in the Knox Trailer Park area. During excavation activities, a bulldozer operator uncovered a live WWII MK-II high explosive hand grenade. The bulldozer operator informed Mr. Cifelli, that during his tenure as a Marine preparing for WWII, Marines used the mobile home area (i.e., Knox Trailer Park) as a hand grenade range (Cifelli, March 2005). This would coincide with the time frame that dog training area was in operation. While Mr. Cifelli no longer recalls the exact location of the grenade he generally estimates that it could have been located 500-600 meters away from the water on the west side of the main road that leads to the trailer park. He recalls that water was visible from where he was standing, but does not recall the depth at which the grenade was found. According to his recollection, the grenade was live and had been thrown, but did not detonate. The safety pin had been removed, but the firing pin had become impacted in the primer. An incident report was probably filled out, but he does not believe any other specifics would have been included in

the report. The grenade was then taken to the range at Verona Loop and destroyed. Mr. Cifelli also recalls also possibly responding 2-3 additional times to discoveries of practices grenades when intrusive activities were being performed.

A 1942 Range Overlay Map contained in the Final Range Identification and Preliminary Range Assessment Report delineated Area A. Area A essentially surrounded, but did not include, the Knox Trailer Park. According to base personnel, this area was never a live fire range for grenades or any other munitions (Lowder, 2005).

Mr. Kimball, consulting historian for the base, reports that he has not encountered any documentation that supports the area as an established range and that ordnance is likely to be found in any given area of the base. During war time, it is possible that the base used several areas as unofficial ranges to support war efforts. Additionally, he reported that it was not uncommon during war time for Marines to hide ammunition in order to ensure receiving a new allotment (Kimball, 2005).

The discovery of previous grenades, along with interviews from EOD personnel may contribute to the Knox Trailer Park area's inclusion as a *suspected* historic hand grenade range, called Knox Trailer Park Grenade Range (Area A), in the Draft 2002 Range Inventory Report. In the report, the range was classified as a live land-to-land grenade training range of an estimated 115 acres. Ordnance use included explosive grenades. Practice grenades were not indicated as having been used. No portion of the land has been confirmed as having UXO, though there is the potential for the presence of Discarded Military Munitions (DMM) in the area (URS, 2002, Ben Redmond, 2005). The MK-II high explosive hand grenade is thought to be the most likely grenade used at the site (Richardson, 2005). According to the specifications, the grenades had a serrated cast-iron body and the MK-II grenades were equipped with a M204A1 Fuze, while the MK-IIA1 grenades were equipped with a M10A3 Fuze. The specifications state that the units were filled with 2 ounces of flaked or granular TNT, though some older units contained E.C. Blank Smokeless Powder (USCOE, 2001).

A visual inspection of the Knox Trailer Park was conducted in November 2002 by the base's Explosive Ordnance Disposal (EOD). No unexploded ordnance was discovered during the inspection (McGurty, 2005). No previous investigations of this site have been conducted.

The expansion area located just north of the current trailer park is the site of a former maneuver training area, called AD Training Area. The area was in operation during the 1940s and was administratively closed by the Environmental Management Division of the Marine Corps in January 2004 and no further action is required on the site (Richardson, 2005, Department of the Navy, 2005). The area was a non-firing area used for land navigation, patrolling, field training and is still in use by the Marine Corps Combat Service Support School at Camp Johnson (Richardson, 2005).

2.3 Current Operational Information

Currently, the housing area, approximately 38 acres, is situated in an open field with pads providing space for 187 mobile homes (Department of the Navy, 2005). As of June 2004, 32 occupied trailers remained at the site, but base personnel have reported that leases are not

being renewed and residents are moving out as leases expire (CH2M HILL, July 2005, Department of the Navy, 2005). Mobile homes still occupying the site vary in condition.

Electricity is supplied directly from Progress Energy, Inc. Potable water is obtained from groundwater wells on the installation in the Castle Hayne Aquifer. Water is treated by the Holcomb Boulevard and Hadnot WTP. Wastewater is conveyed to the wastewater treatment plant located in the French Creek area of the base (Department of the Navy, 2005).

Figure A-3 shows the area's proximity to the nearest storage tank (former), hazardous waste storage area, solid waste management units, and CERCLA site. All are located in or around the Tarawa Terrace housing area. The nearest unit is SWMU 461 (UST-TT3548), located approximately 1/3 of a mile from the trailer park in Tarawa Terrace II. This UST site has a no further action status and environmental sampling results indicate that surface soils do not pose a threat to human health. The Knox Park expansion area, a previous maneuver training area, is located approximately 1/8 of a mile north of the trailer park area (Department of the Navy, 2005).

SECTION 3

Findings

3.1 Summary of Findings

Based on the research activities, the following historical activities have been identified as having some level of concern for the ESI. Site Screening Review Meetings were conducted to determine which sites could be closed out based on the information gathered during the preliminary assessment (PA). The following table summarizes the conclusions that were reached in the meetings.

Activity	Level of Concern
CCC Camp	Minimal
War Dog Training School	Moderate
Body Armour Research Facilities	Minimal
Suspected range Use	High

3.2 Specific Findings

3.2.1 CCC Camp

The CCC Camp previously located at the Knox Trailer Park from 1941-1942 routinely used dynamite and diesel oil in its efforts to control the mosquito population. Possible environmental concerns could include groundwater and sediment contamination in nearby water sources from the spraying of diesel oil and soil contamination from the use of explosive materials.

3.2.2 War Dog Training School

The War Dog Training School, in operation from 1942-1946, used explosives such as overhead rifle and machine gun fire, charges of dynamite and TNT, and Dago bombs on a weekly basis. Possible environmental concerns could include soil contamination as well as the presence of UXO or DMM.

3.2.3 Body Armor Research Facilities

The body armor research facilities, in operation from approximately 1948-1953, tested the armor vests using pistol and submarine bullets as well as hand grenades. Ammunition most likely used at the Knox Trailer Park was ball-type ammunition. Environmental concerns from this activity are assumed to be minimal as testing was most likely done inside and the amount of ammunition expended on the testing is thought to be small.

3.2.4 Suspected Range Use

The discovery of live ordnance in the Knox Trailer Park gives indication of the area as a suspected range. No portion of the land has been confirmed as having UXO, though there is the potential for the presence of DMM in the area. Given the history of the entire base, ordnance is likely to be found in any given area of the base.

SECTION 4

References

Baker Environmental, *Draft Report Phase I- Environmental Baseline Survey (EBS) Public/Private Venture of Family Housing, Marine Corps Base Camp Lejeune, United States Navy, Mid-Atlantic Region, NAVFAC Atlantic,* November 2004.

Carraway, Gertrude S. Camp Lejeune Leathernecks, USMC Training Center, October 1946, New Bern Owen G. Dunn Company Publishers.

CH2M HILL, July 2005. Project Instructions for CTO-109: Expanded Site Investigation at Knox Trailer Park, Camp Lejeune, NC.

Cifelli, Don. Ret. EOD Tech, Camp Lejeune. Personal communication, August 15 and 18, 2005

Department of the Navy, Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-11, March 27, 1941.

Department of the Navy, Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-12, March 25, 1941.

Global Security Website, July 19, 2005. http://www.globalsecurity.org/military/facility/camp-lejeune.htm

Jordan, John, Camp Lejeune Real Estate Expert. Personal communication, August 3, 2005.

K-9 History WWII PTO-USMC Devil Dogs! April 25, 2005.

WebTV Community Webpages, Http://community-2.webtv.net/Hahn-50thAP-K9/K9History4/

Kimball, Lt. Col. Lynn (USMC, Ret.), Camp Lejeune Consulting Historian. Personal communication, August 10, 2005.

Loftfield, Thomas C., Principal Investigator, University of North Carolina, Wilmington, *Archeological and Historical Survey of USMC Base, Camp Lejuene*, Naval Facilities Engineering Command Norfolk, Coastal Zone Resource Corp, Vol II, Contract # N62470-79-C-4273, August 1981.

Lowder, Robert, Environmental Management Division. Personal communication, September, 23, 2005.

Louis Berger Group Inc. under USCOE, Wilmington District Contract DACWS4-99-C-0004, *Semper Fidelis: A Brief History of Onslow County, North Carolina and MCB, Camp Lejuene, 2002, U.S.M.C.*, Lt. Col Lynn J. Kimball (USMC, Ret.), consulting historian.

Marine Barracks-New River (MBNR), North Carolina, *Camp Knox, Site Plan Block "E,"* Y&D Drawing No. 162070, May 31, 1943.

MBNR, North Carolina, *Camp Knox, Site Plan Dog Training Area*, Y&D Drawing No. 162059, January 1, 1943.

MBNR, North Carolina, *Site Development Plan for Civilian Conservation Corps Camp*, Y&D Drawing No. 162044, July 23, 1941.

MCB Camp Lejeune. *Environmental Assessment Construction of a Consolidated Academic Instruction Facility and Barracks, Camp Johnson, Marine Corps Base, Camp Lejeune, Onlow County, North Carolina*, July 2002.

MCB Camp Lejeune. *Body Armour Research Facilities, Camp Knox, Bldgs. D-23, E-1, and D-22, Index Sheet*, Y&D Drawing No. 452288, January 20, 1949a.

MCB Camp Lejeune. *Body Armour Research Facilities, Camp Knox, Bldg. E-1, Conversion to Testing Laboratory, Floor Plan, Elevation, and Details*, Y&D Drawing No. 452295, January 20, 1949b.

MCB New River, North Carolina, *Property Map Area A*, Y&D Drawing No. 159372, Contract No. 4717, April 5, 1941.

McGurty, Gerard, Gunnery Sgt. MCB Ops Chief, Camp Lejeune, personal communication, July 22, 2005.

Montrose, Lynn. Marine Corp Gazette, June 1955, "*Development of Our Body Armor*."

National Archives at College Park, College Park, MD (NACP), *Camp Lejeune General Area Map, Y & D Drawing No. 387415, March 11, 1947*, Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1572, folder *Inspector General's Report, Annual Inspection, Marine Barracks, Camp Lejuene, North Carolina, 2-4 December 1947.*

National Archives at College Park, College Park, MD (NACP), *Camp Lejeune General Area Map, Y & D Drawing No. 162050 February 10, 1942,* Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Brooklyn to 2285-10 Camp Lejuene, Box 1570, folder *Camp Lejuene, North Carolina.*

National Archives at College Park, College Park, MD (NACP), *Confirmation of Verbal Instructions*, June 20, 1945, Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 1275/70-800 (10/44-1/45) to 1275/70-800 (7/45-9/45), Box 219, folder 1275/70-800 Camp Lejuene, North Carolina, Vol. 5, from 1 June 45 to 30 June 45.

National Archives at College Park, College Park, MD (NACP), *Enclosure A, Questionnaire for Commanding General, December 8, 1945*, Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Brooklyn to 2285-10 Camp Lejuene, Box 1570 folder Camp Lejuene, North Carolina, Annual Inspector General's Inspection of Camp Lejeune, Questionnaire for Commanding General, pgs. 4-8, 13, Annex.

Onslow County Schools (OCS) Website August 15, 2005, http://www.onslowcountyschools.org/OCinfosheet.htm

Pappas, Glenn, Camp Lejeune Military Historian, personal communication, August 3, 2005.

Redmond, Ben (Ret. U.S.M.C), CH2M HILL, personal communication, August 17, 2005.

Richardson, Duane, Camp Lejeune Range Safety Officer. Personal communication, August 3, 2005.

Putney, Captain William W., D.V.M., U.S.M.C. (Ret.), *Always Faithful: A Memoir of the Marine Dogs of WWII*, The Free Press, 2001.

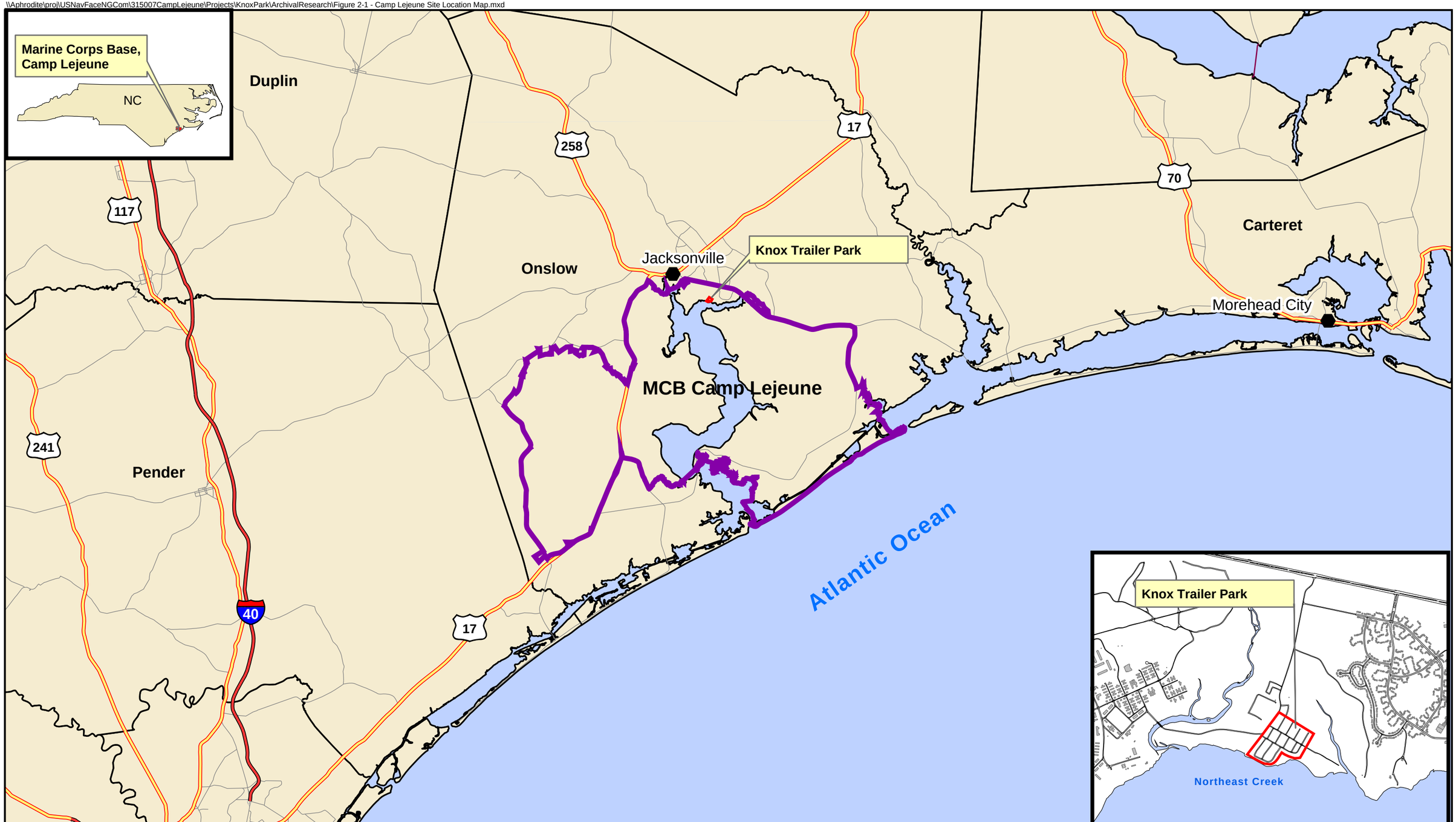
URS Corp, *Draft Marine Corps Base Camp Lejeune Range Inventory Report*, February 2002.

US Army Corps of Engineers, St. Louis District. *Final Range Identification and Preliminary Range Assessment,* Marine Corps Base Camp Lejeune, Onslow, North Carolina, December 2001.

Water and Air Research. 1983. Water and Air Research, Inc. *Initial Assessment Study of Marine Corps Base, Camp Lejeune. North Carolina*. Prepared for Naval Energy and Environmental Support Activity.

Figures

\\Aphrodite\proj\USNavFaceNGCom\315007CampLejeune\Projects\KnoxPark\ArchivalResearch\Figure 2-1 - Camp Lejeune Site Location Map.mxd



Legend
- Military Installation Area
- Knox Trailer Park
- Highway
- Limited Access Higwhay
- Local Roads
- Cities

N
W E
S

0 4,500 9,000 13,500 18,000
Meters

Figure A-1
Camp Lejeune Site Location Map
MCB Camp Lejeune, North Carolina

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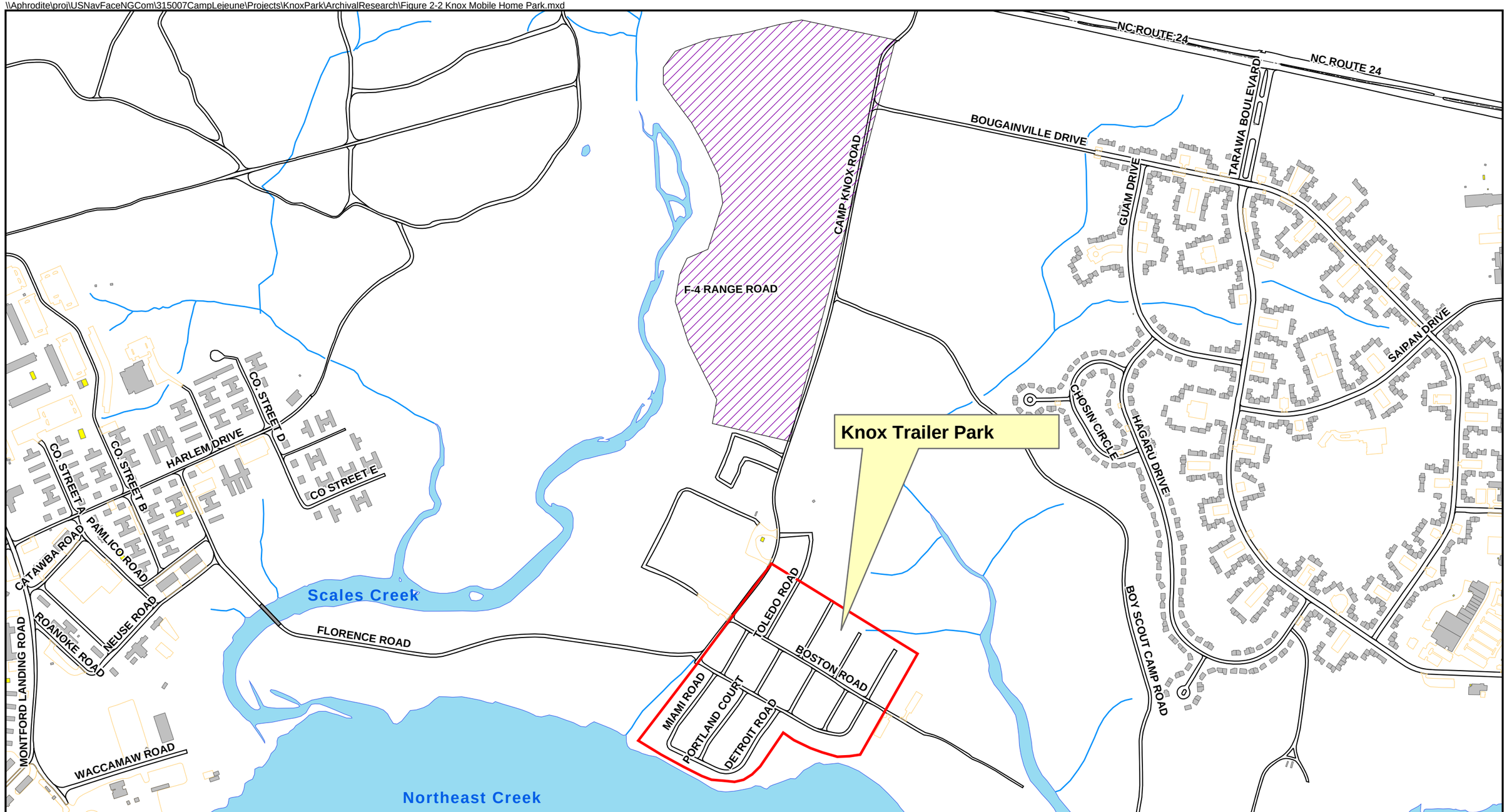
\\Aphrodite\proj\USNavFaceNGCom\315007CampLejeune\Projects\KnoxPark\ArchivalResearch\Figure 2-2 Knox Mobile Home Park.mxd



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Knox Park Expansion Area

N
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Meters

Figure A-2
Knox Trailer Park
MCB Camp Lejeune
Camp Lejeune, North Carolina

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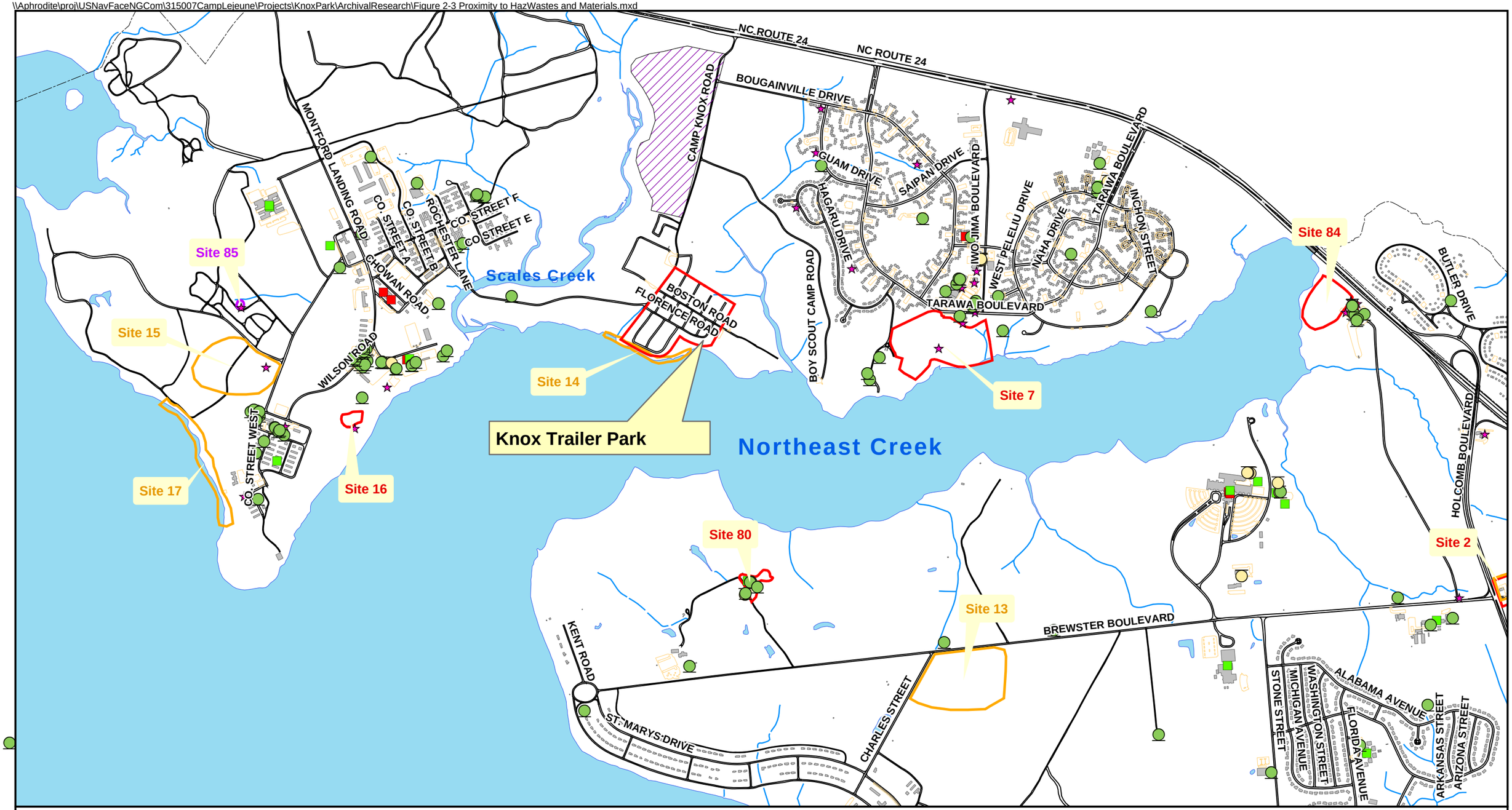
\\Aphrodite\proj\USNavFaceNGCom\315007CampLejeune\Projects\KnoxPark\ArchivalResearch\Figure 2-3 Proximity to HazWastes and Materials.mxd



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Knox Park Expansion Area
- Above Ground Storage Tank
- Underground Storage Tank
- CERCLA Pre-remediation Sites
- CERCLA Sites
- Initial Assessment Sites
- Hazardous Materials Storage
- Hazardous Waste Storage
- SWMUs

N W E S

500 0 500 Meters

Figure A-3
Proximity to Active Hazardous Wastes and Materials,
ASTs, USTs, LUSTs, SWMUs, CERCLA Sites, and IR Sites
Knox Trailer Park
MCB Camp Lejeune, North Carolina

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Attachment 1
Resource Review Summary

ATTACHMENT 1

A. 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
Washington Navy Yard, Marine Corp Library Historical Aerial Photos	Reviewed all available file folders related to Camp Lejeune and copied relevant aerial photographs.
Lena Kaljot/MC Library	See *Marine Corp Library Review*
US National Archives (NARA II) Historical Files	Reviewed text and drawing files from Text Division and Cartographic Division.
Barry Zirby/National Archives Text File	See *US National Archives Files Review*
US National Archives (WDC) Historical Files	Contacted and interviewed Trevor Plant. No records on Camp Lejeune are maintained at the WDC facility.
US National Archives, Philadelphia Region	Contacted and interviewed Patrick Connelly. Philadelphia facility does not maintain records on North Carolina.
US National Archives, Atlanta Region	No response from facility personnel.
Camp Lejeune Library files	Reviewed and copied all relevant documents related to historical land use at Knox Trailer Park.
Camp Lejeune Real Estate files	Reviewed and copied all relevant documents related to historical land use and land acquisition at Knox Trailer Park.
Camp Lejeune Website	Reviewed and copied all relevant documents related to historical land use at Knox Trailer Park.
Camp Lejeune Personnel	
Bob Lowder/Environmental	Contacted and interviewed
John Jordan/ Real Estate Exert	Contacted and interviewed
Glenn Pappas/MCB Camp Lejeune Military Historian	Contacted and interviewed
Disel Hinkle/Range Ops Div	Contacted and interviewed
Gunnery Sgt. Luke Moore (Camp Geiger EOD)	Contacted and interviewed
New River EOD	No response.
Duane Richardson/ Base Range Safety Officer	Contacted and interviewed
Other Contacts	
Lt. Col. Lynn Kimball (U.S.M.C. Ret) /historical consultant	Contacted and interviewed.
Mr. Cifelli/ Retired Camp Lejeune EOD Tech	Contacted and interviewed.

A.1 Marine Corp Library Review

Text Division

Contact: Bob Aquilina
Telephone Interview: July 13, 2005

Mr. Aquilina stated that it is unlikely that the Marine Corp Library reference materials would have information related to the identification of historical ordnance use. The library's materials consist mainly of public affairs articles, newspaper clippings, Commanding Officer's list, and Gazette articles. He recommended contacting the National Archive facilities in College Park, MD and Washington, D.C.

Photographic Division

Contact: Ms. Lena Kaljot, (202) 433-2631
Site visit on July 15, 2005

Reviewed 10 file folders of photographs for Camp Lejuene:

1- Camp Lejuene, North Carolina Aerial Views, 1940-1960s

2- Camp Lejuene, North Carolina, Aerial Views Undated-photos primarily of the headquarters area

3- North Carolina General- photos primarily of the airstrip

4- Camp Lejuene, North Carolina 1948- primarily Pontoon Bridge Beach Area and main post buildings

5- Camp Lejuene, North Carolina Ice Cream Plant

6- Camp Lejuene, North Carolina Lumber

7- Camp Lejuene, North Carolina Midway Park, 1948

8- Camp Lejuene, North Carolina, Miscellaneous

9- Camp Lejuene, North Carolina, Training

10- Camp Lejuene, North Carolina, Storage

List of Documents Obtained from Marine Corp Library

Photo ID #1, folder 1, *Montford Point, Camp Knox Area, Camp Lejuene, North Carolina, September 20, 1948, F.L. 6", Ele. 3500, Looking West*.

Photo ID #2, folder 1, *Montford Point, Camp Knox Area, Camp Lejuene, North Carolina, September 22, 1948, F.L. 6", Ele. 5000, Looking North*.

Photo ID #3, folder 1, *Montford Point, Camp Knox Area, Camp Lejuene, North Carolina, September 22, 1948, F.L. 6", Ele. 5000, Looking South.*

Photo ID #4, folder 1, *Officer's Quarters, Camp Lejuene, North Carolina, October 13, 1948, F.L. 12", Ele. 9000', Looking North*.

Photo ID #5, folder 1, *Montford Point, Camp Lejuene, North Carolina, September 10, 1951, 6500 ft ele*.

Photo ID #6, folder 8, *Trailer Park at Camp Lejuene, North Carolina, May 1954, #22, Defense Department Photo A340216*.

Photo ID #7, folder 1, *Camp Lejuene, North Carolina, May 6, 1948, Looking North, Alt 20,000', F.L. 6"*.

Photo ID #8, folder 1, *Montford Point and Camp Knox Area, Camp Lejuene, North Carolina, September 20, 1948, F.L. 6", Ele. 4300, Looking East*.

Photo ID #9, folder 1, *Officer's Housing Area, Camp Lejuene, North Carolina, September 14, 1951, Negative # 2 MAW 421-9-51*.

A.2 National Archives and Records Administration Review

Text Division

Contact: Mr. Barry Zirby, 301-713-7250 x285
Site visit on July 15 and 18, 2005

Reviewed 18 boxes of files associated with the Marine Corps, 1939-1950

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 1275/70-800 (10/45-1/47) to 1275/70-727 (1/44-12/47), Box 218.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 1275/70-800 (10/44-1/45) to 1275/70-800 (7/45-9/45), Box 219.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-10 (1/48-12/48) to 2000-10 (5/24-12/36), Box 1201.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-10 (6/45-4/46) to 2000-10 (5/44), Box 1202.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20 (1/49-10/49) to 2000-10 (1/45-6/45), Box 1203.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20 (1/44-6/47) to 2000-20 (5/48-12/48), Box 1204.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-5 (6/46-12/47) to 2000-20 (6/43), Box 1205.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-10 (7/48-10/47) to 2000-20-5 (4/45-6/46), Box 1206.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-10 (7/41-11/42) to 2000-20-10 (1/45-6/45), Box 1207.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-10 (7/39-2/40) to 2000-20-10 (2/40-6/41), Box 1208.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-20 (1/48-12/48) to 2000-20-15 (1/49-6/50), Box 1209.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-20 (1/44-11/46) to 2000-20-20 (11/46-12/47), Box 1210.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2000-20-20 (2/33-8/36) to 2000-20-20 (6/42), Box 1211.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2015 (3/43) to 2000-80 (1/44-12/47), Box 1241.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Brooklyn to 2285-10 Camp Lejuene, Box 1570.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1571.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1572.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1573.

Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939-June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1574.

The boxes contained information primarily related to weapons test results, weapons cost distribution, weapons training classes, weapon specifications, and cleaning and maintenance. The material was not specific to Camp Lejeune and included information for several MC bases.

Cartographic Division

The cartographic division did not contain any relevant information pertaining to historical ordnance use in the Knox Trailer Park area of Camp Lejuene. Information for Camp Lejuene is located under Record Group (RG) 71-Bureau of Yards and Docks. The index for locating cartographic materials is then grouped by subject codes. The only available drawing for Camp Lejuene was for Subject Area 19- Water Systems. Subject Areas 44 is Rifle ranges, machine gun ranges, sighting ranges, bombing targets; however, no materials were located under this Subject Area.

List of Documents Obtained from National Archives

Document: *Enclosure B, Commanding General's Questionnaire, pgs 4- 8*.
Location: Text Division, Box 1572, folder *Inspector General's Report, Annual Inspection, Second Marine Division, Fleet Marine Force, Camp Lejuene, North Carolina, 5-15 December 1947.*
Relevance: Description of weapons and training ranges.

Document: *Camp Lejeune General Area Map, March 11, 1947, Y & D Drawing No. 387415.*

Location: Text Division, Box 1572, folder *Inspector General's Report, Annual Inspection, Marine Barracks, Camp Lejuene, North Carolina, 2-4 December 1947.*
Relevance: Dog training area renamed CCC.

Document: *Training Facilities and Regulations Governing the Use of, 17 August, 1949*
Location: Text Division, Box 1573, folder *Inspector General's Report, Annual Inspection, Marine Barracks, Camp Lejuene, North Carolina, 7-9 November 1949, pgs. 1-7.*
Relevance: Description of Training Facilities

Document: *Confirmation of Verbal Instructions, June 20, 1945*
Location: Text Division, Box 219, folder *1275/70-800 Camp Lejuene, North Carolina, Vol. 5, from 1 June 45 to 30 June 45.*
Relevance: Housing capacity of Camp Knox

Document: *Enclosure A, Questionnaire for Commanding General, December 8, 1945.*
Location: Text Division, Box 1570, folder *Camp Lejuene, North Carolina, Annual Inspector General's Inspection of Camp Lejeune, Questionnaire for Commanding General, pgs. 4-8, 13, Annex A*.
Relevance: Description of buildings and specialist schools at Camp Knox

Document: *Camp Lejeune General Area Map, February 10, 1942, Y & D Drawing No. 162050.*
Location: Text Division, Box 1570, folder *Camp Lejuene, North Carolina.*
Relevance: Reference Dog Training Area.

A.3 MCB Camp Lejeune Base Site Visit and Records Review

Base Contact: Mr. Bob Lowder, Environmental Management Division, 910-451-9607
Site visit August 3 and 4, 2005

File reviews of records in the base Real Estate office, base library, and EOD office were conducted during the site visit. Additionally, interviews were conducted with the Glenn Pappas/Military Historian, John Jordan/Real Estate expert, and Duane Richardson/EOD Base Range Safety Officer.

Specific figure files reviewed in the Real Estate Office included the follwoing:

Year 1941, 162044, Civilian Conservation Corp Site
Year 1943, 267616-618, Mess Hall
Year 1943, 162059, 162070, CCC Camp and Dog Training Area
Year 1943, 248193L-198L, 248188-248A, Dog Training School, Plumbing and Electrical Layout
Year 1949, 452288-95, Body Armour Research
Year 1952, 505605-608-617, Camp Knox Trailer Park, Private Trailer
Year 1952, 505397, Site and Boundary Survey
Year 1952, 567134-136, PHA Trailers
Year 1952, 567128-133, PHA Trailer Park
Year 1952, 567148-152, Trailer Park Ext.
Year 1974, 401305-317, Mobile Home Park
Year 1985, 4163858-879, Mobile Home Park

A walkthrough of the Knox Trailer Park was conducted on August 4, 2005. No visual evidence of MEC or HTW contamination was observed. There were several areas in the woods off of Boston Road and Camp Knox Road, where residential items had been disposed.

Specific interviews with base representatives for Natural Resources, Archeological Resources, Tank Program, Hazardous Waste, and SWMUs were not conducted as this information was adequately covered in the recent reports: *Draft Report Phase I- Environmental Baseline Survey (EBS) Public/Private Venture of Family Housing, Marine Corps Base Camp Lejeune (November 2004)* and *Revised Pre-Final Environmental Assessment for Privatization of Military Housing at MCB Camp Lejeune, MCAS New River, and MCAS Cherry* Point (July 2005).

Mr. Jerry Swain was contacted and emailed on 5 different occasions to obtain information regarding past residents of Knox Park. To date, there has been no response from the base housing department regarding this request.

The Range Inventory Report listed Margaret Briley as the point of contact for the suspected range at Knox Trailer Park. She has since retired from the base and been replaced by Disel Hinkle. When contacted on August 25, 2005, he reported that the report had been completed before his arrival and he had no additional information to provide regarding the Knox area as a previous range.

Follow-up calls were made to the EOD offices at Camp Geiger and New River to determine if there were additional ordnance responses made to Camp Knox other than the ones reported by Mr. Cifelli. Gunnery Sgt. Luke Moore from Camp Geiger, stated that the office had no records going back to the 1970s. Their records only go back about 10 years. He had no knowledge of any other incidents at Knox Trailer Park other than the EOD sweep a few years back and the information provided by Mr. Cifelli. No response was obtained from the New River EOD office.

Former base employees contacted were Lt. Col Lynn J. Kimball (USMC, Ret.) and Mr. Don Cifelli. Lt. Col. Kimball served as consulting historian on a book entitled *Semper Fidelis: A Brief History of Onslow County, North Carolina and MCB, Camp Lejuene*, which was also reviewed during the site visit. He was interviewed on August 10, 2005. Mr. Cifelli was contacted on August 15, 2005 and August 18 as a follow-up to a March 31, 2005 conversation with Mr. Bob Lowder regarding his past experience with ordnance at Knox Park.

List of Documents Obtained from Camp Lejeune

Base Real Estate Office

Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-30, March 26, 1941 photos included.

Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-31, March 26, 1941 photos included.

Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-33, March 25, 1941 photos included.

Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-11, March 27, 1941 photos included.

Appraisal Report, LA-Navy-Jacksonville, NC, Tract No. A-12, March 25, 1941 photos included.

Index-500' Scale Maps, Existing Condition, Marine Corps Base, Camp Lejeune, North Carolina, July 31, 1984.

Marine Corps Base New River, North Carolina, Property Map Area A, Y&D Drawing No. 159372, Contract No. 4717, April 5, 1941.

Body Armour Research Facilities, Camp Knox, Bldgs. D-23, E-1, and D-22, Index Sheet, Y&D Drawing No. 452288, January 20, 1949.

Body Armour Research Facilities, Camp Knox, Bldg. D-23, Alteration to Animal Facility, Floor Plan and Details, Y&D Drawing No. 452290, January 20, 1949.

Body Armour Research Facilities, Camp Knox, Bldg. E-1, Conversion to Testing Laboratory, Floor Plan, Elevation, and Details, Y&D Drawing No. 452295, January 20, 1949.

Body Armour Research Facilities, Camp Knox, Bldg. D-23, Alteration to Animal Facility, Electrical, Y&D Drawing No. 452294, January 20, 1949.

Marine Barracks-New River, N.C., Camp Knox, Site Plan Block "E", Y&D Drawing No. 162070, May 31, 1943.

Marine Barracks-New River, N.C., Camp Knox, Site Plan Dog Training Area, Y&D Drawing No. 162059, January 1, 1943.

Marine Barracks-New River, N.C., Site Development Plan for Civilian Conservation Corps Camp, Y&D Drawing No. 162044, July 23, 1941.

Base Library

Louis Berger Group Inc. under USCOE, Wilmington district Contract DACWS4-99-C-0004, Semper Fidelis: A Brief History of Onslow County, North Carolina and MCB, Camp Lejuene, 2002, U.S.M.C., Lt. Col Lynn J. Kimball (USMC, Ret.), consulting historian.

Putney, Captain William W., Always Faithful: A Memoir of the Marine Dogs of WWII, D.V.M., U.S.M.C. (Ret.), The Free Press, 2001.

Loftfield, Thomas C., Principal Investigator, University of North Carolina, Wilmington, August 1981. Archeological and Historical Survey of USMC Base, Camp Lejuene, Naval Facilities Engineering Command Norfolk, Coastal Zone Resource Corp, Vol. II, Contract # N62470-79-C-4273.

Montrose, Lynn. Marine Corp Gazette, June 1955, "Development of Our Body Armor"

Carraway, Gertrude S. Camp Lejeune Leathernecks, USMC Training Center, October 1946, New Bern Owen G. Dunn Company Publishers.

D'oench, PFC Derry, The Camp Lejeune Globe, "War Dogs, Trained here, Have outstanding Combat Record", Wed., February 13, 1946.

Tarpinian, Dick. The Camp Lejeune Globe, "War Dogs Undergoing Separation", Wed., September 26, 1945.

Marino, Carl L. On Land On Sea. In the Air, 1775 Semper Fidelis 1943.

Map of Montford Point Area and Vicinity, Camp Lejeune, North Carolina, Showing Conditions on June 30, 1964, Sheet 6 of 18.

EOD Office

Range and Training Regulations, BO P3570.1A, SOP for Range Control, Undated. Appendix C, Current Ops for Training Area AD

Final Range Identification and Preliminary Range Assessment, Marine Corps Base Camp Lejeune, Onslow, North Carolina, December 2001, Prepared by US Army Corps of Engineers, St. Louis District.

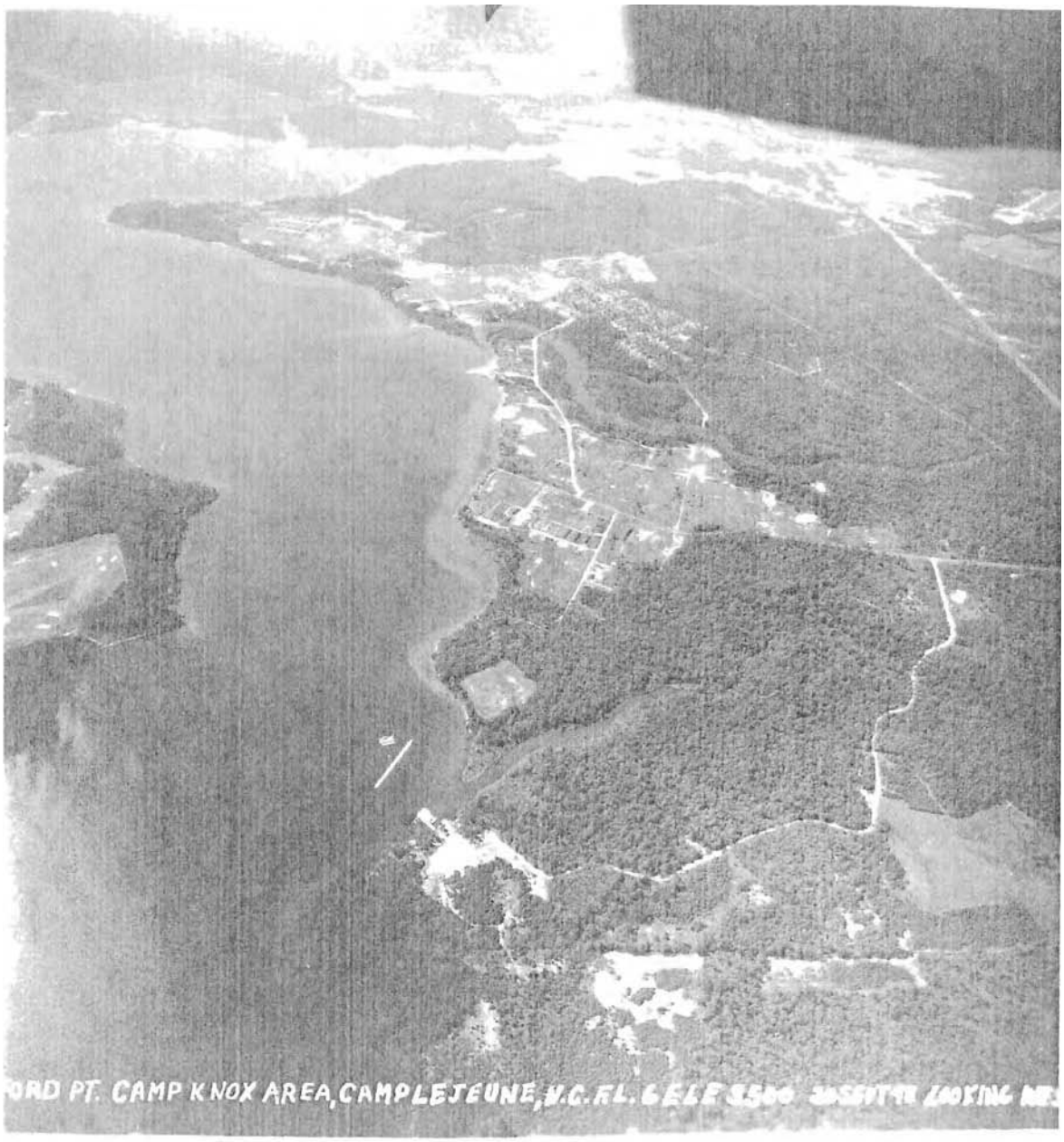
Environmental Office

Draft Marine Corps Base Camp Lejeune Range Inventory Report, February 2002, Prepared for USACE Mobile District, Mobile, Alabama.

Lowder, Robert, Environmental Management Division, Camp Lejeune. Electronic mail communication from Bob Lowder documenting phone interview with Mr. Cifelli, retired EOD personnel on Mary 30, 2005.

Attachment 2
Photo Log

Aerial Photographs



Aerial Photo ID #1

Montford Point, Camp Knox Area

Camp Lejuene, North Carolina

September 20, 1948

F.L. 6", Elevation 3500, Looking West

CH2MHILL

Aerial Photo ID #2
Montford Point, Camp Knox Area
Camp Lejuene, North Carolina
September 22, 1948
F.L. 6", Elevation 5000, Looking North

CH2MHILL

Aerial Photo ID #3

Montford Point, Camp Knox Area

Camp Lejuene, North Carolina

September 22, 1948

F.L. 6", Elevation 5000, Looking South

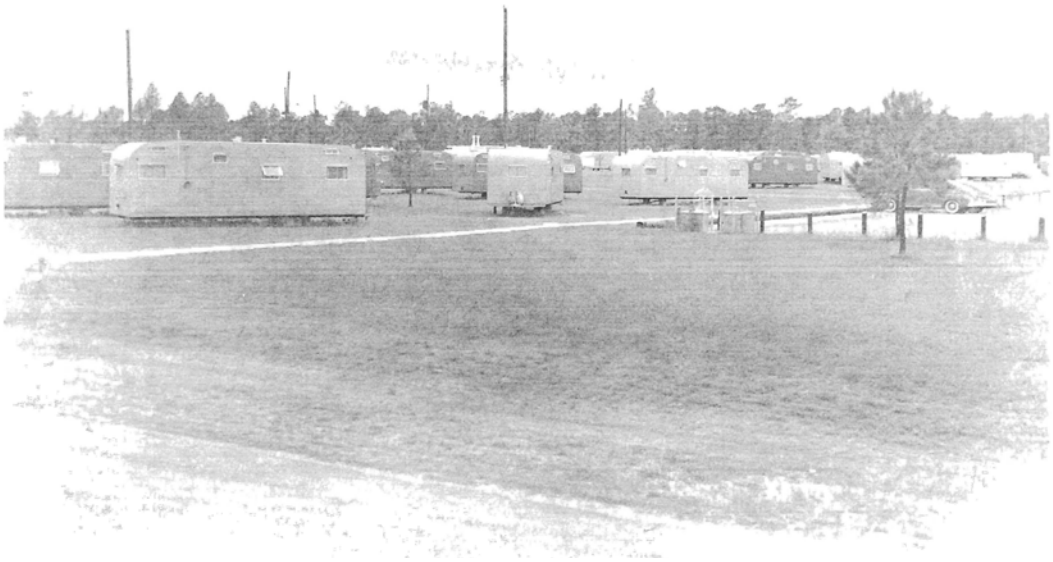
CH2MHILL

Aerial Photo ID #4
Officer's Quarters
Camp Lejuene, North Carolina
October 13, 1948
F.L. 12", Elevation 9000' Looking North

CH2MHILL

Aerial Photo ID #5
Montford Point
Camp Lejuene, North Carolina
September 10, 1951
Elevation 6500′,Looking South

CH2MHILL



Aerial Photo ID #6

Trailer Park at Camp Lejuene

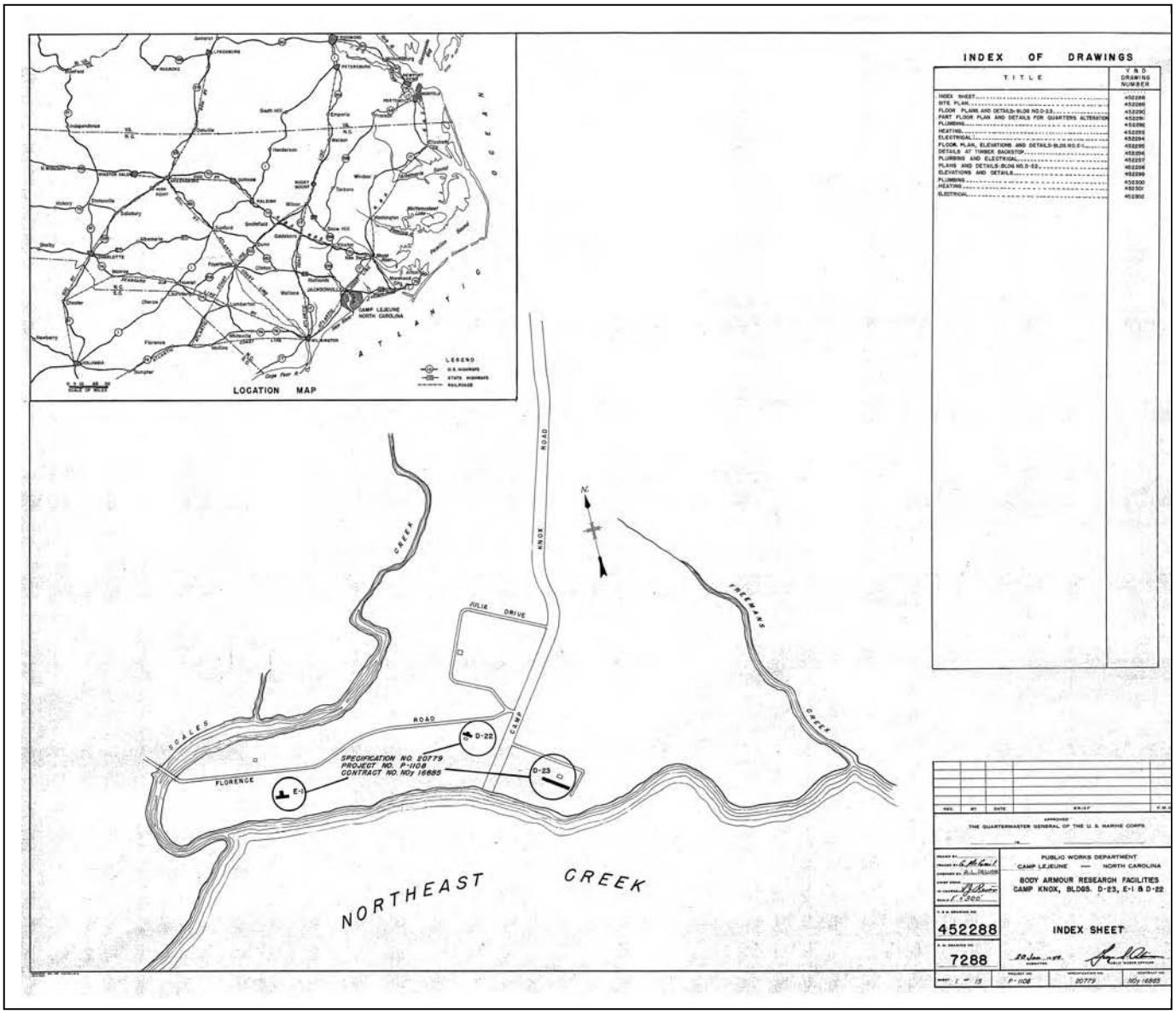
North Carolina

May 1954

#22 Defense Department Photo A340216

CH2MHILL

Maps



Body Armour Research Facilities #32

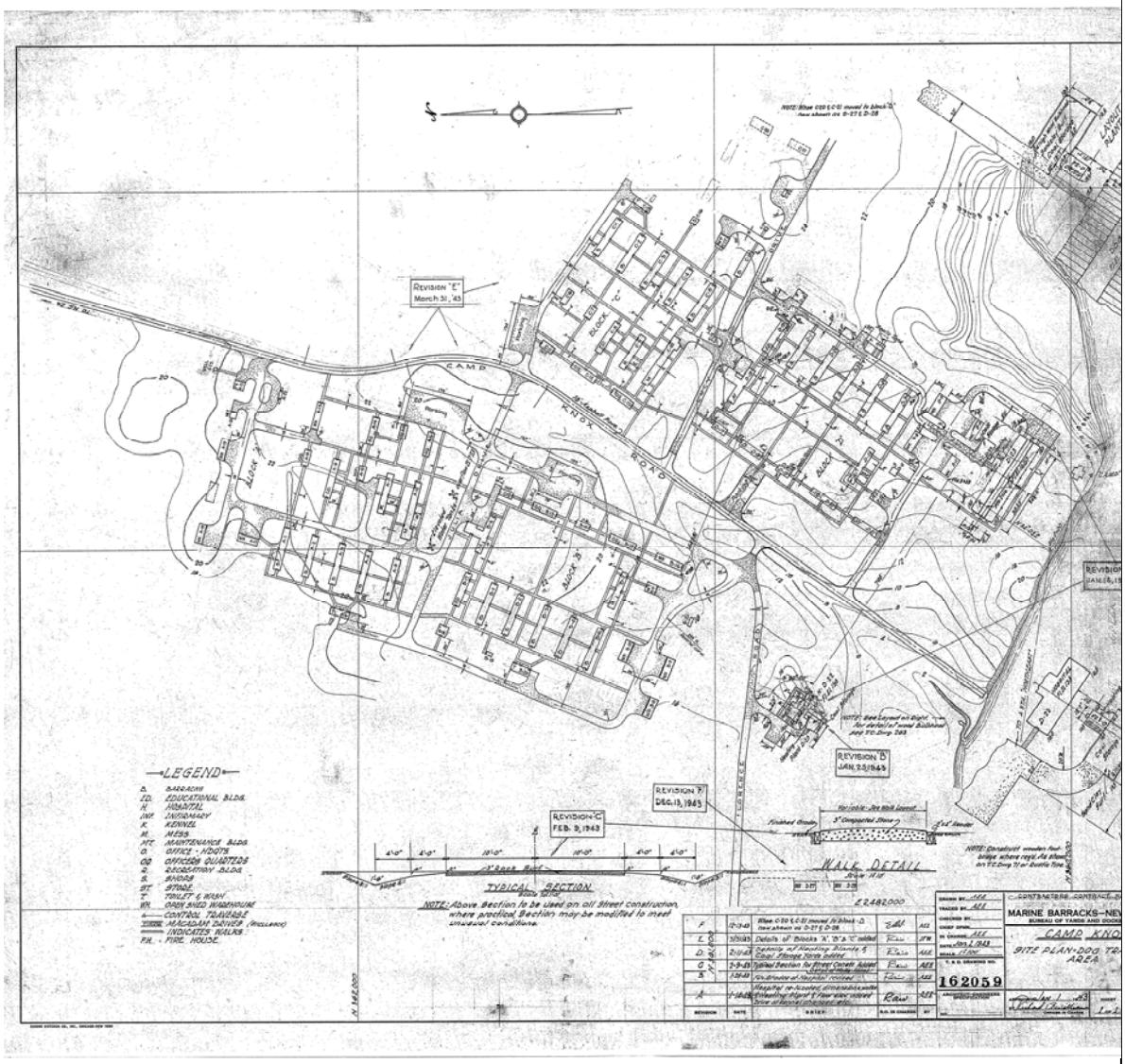
Camp Knox Bldg. D-23, E-1 and D-22

Index Sheet

Y&D Drawing No. 452288

January 20, 1949

CH2MHILL

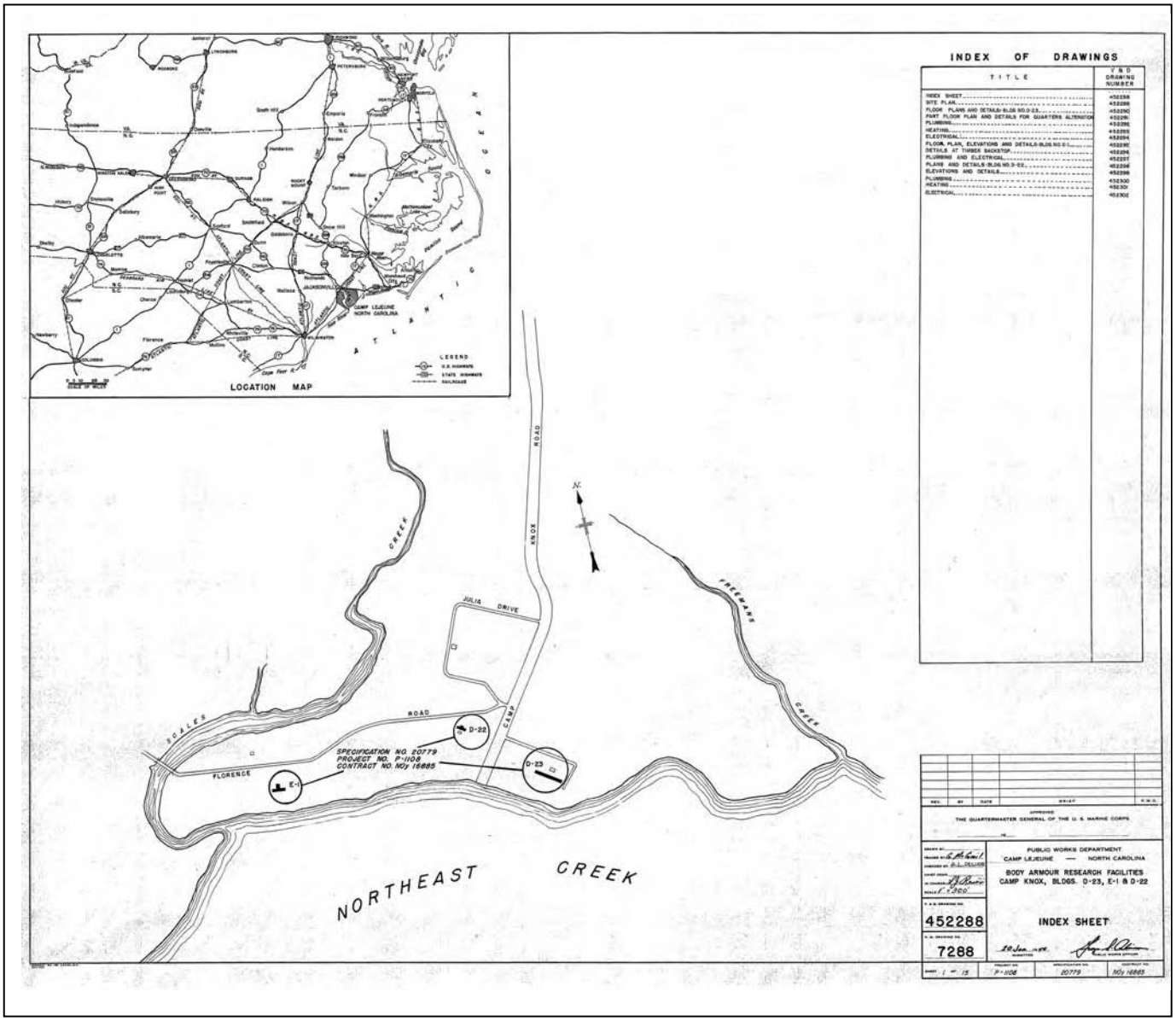


Camp Knox, Site Plan Dog Training Area #37

Y&D Drawing No. 162059

January 1, 1943

CH2MHILL

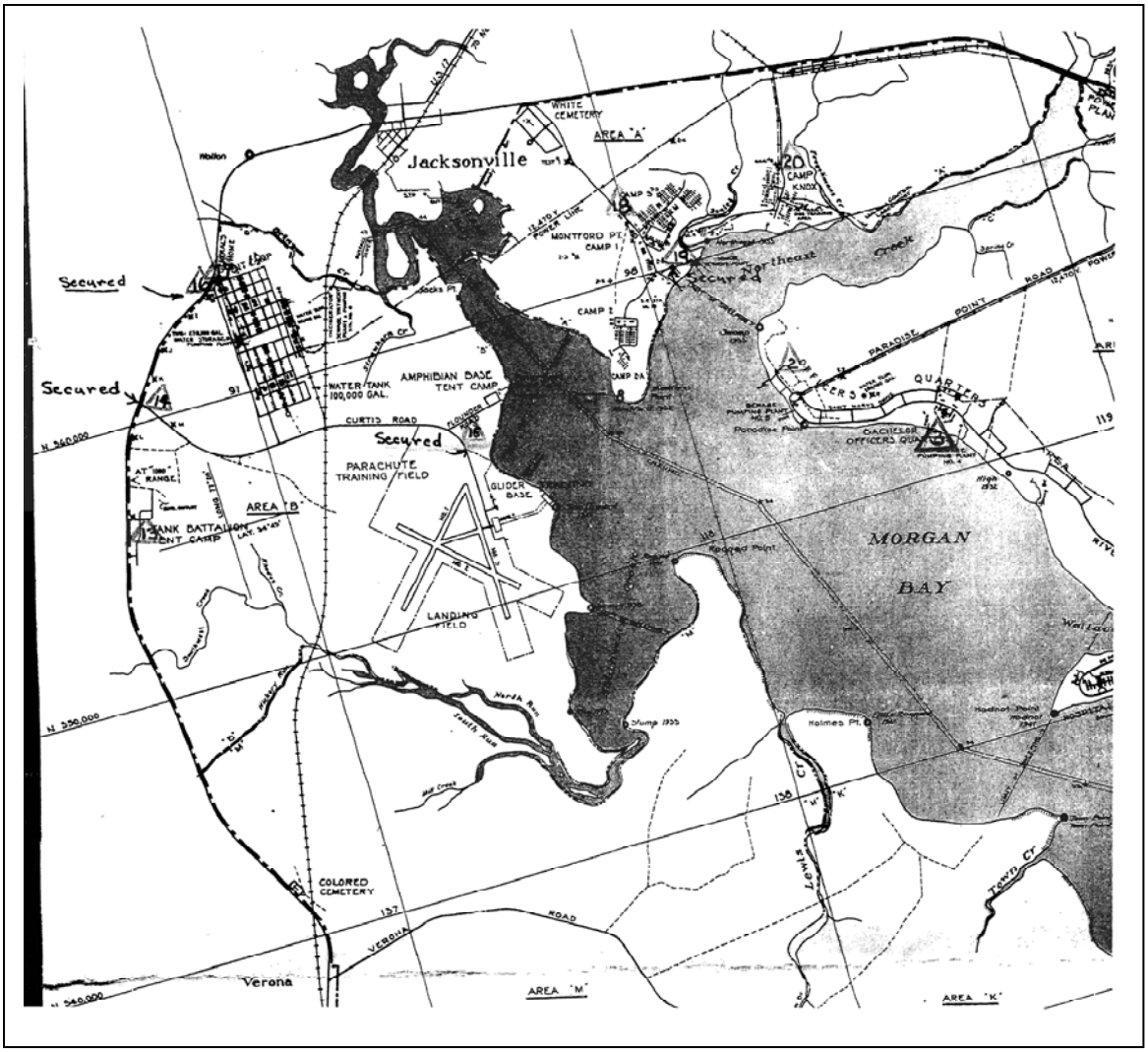


Site Development Plan for Civilian Conservation Corps Camp #38

Y&D Drawing No. 162044

July 23, 1941

CH2MHILL



Camp Lejeune General Map Y & D #39

Drawing No. 162050

February 10, 1942

CH2MHILL

Camp Lejeune General Map Y & D #40

Drawing No. 387415

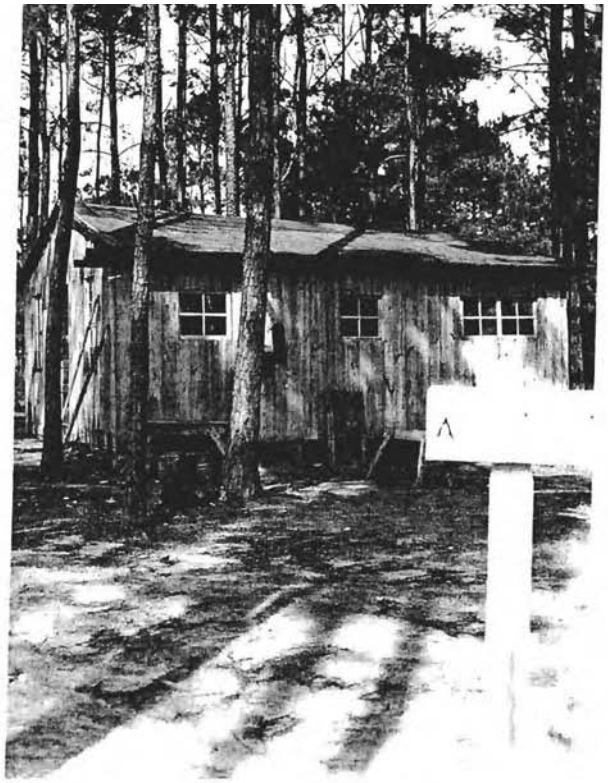
March 11, 1947

CH2MHILL

Property Tract Photographs

Property Tract A-11 Photo #1

Property Tract A-11 Photo #3



Property Tract A-12 Photo #1

Property Tract A-12 Photo #4

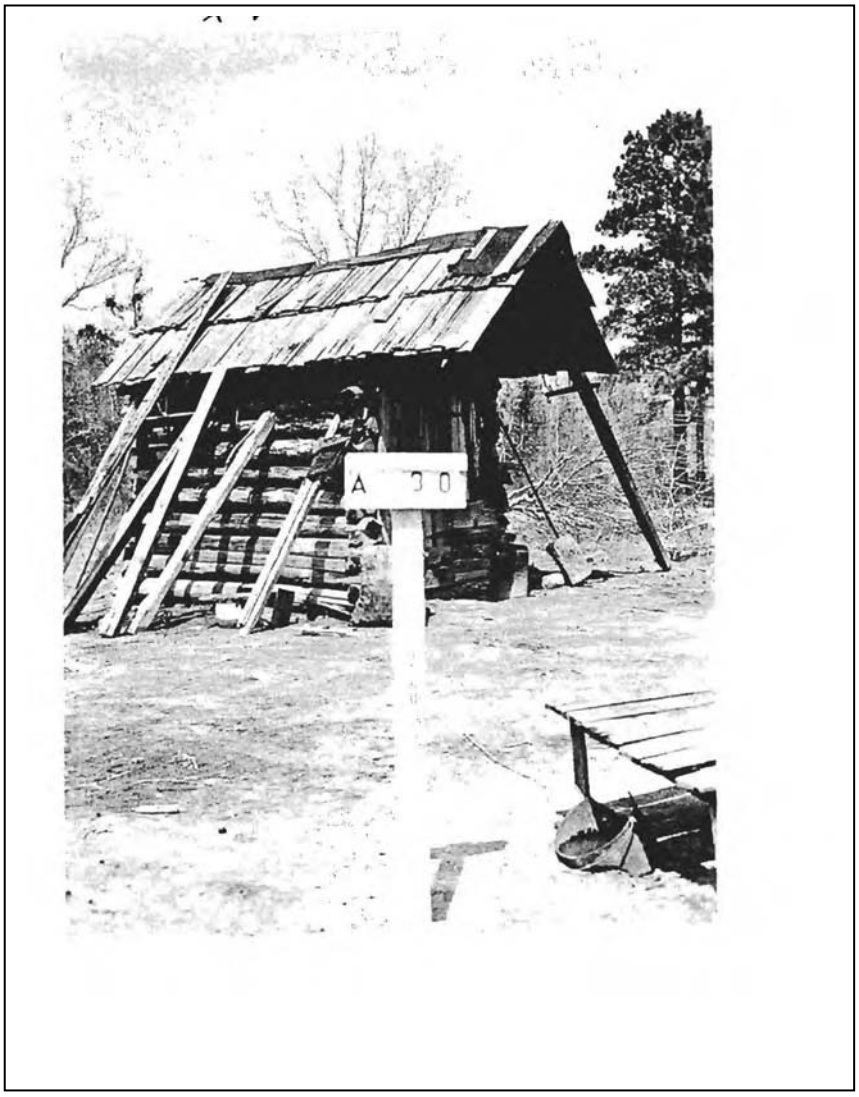
Property Tract A-12 Photo #5

Property Tract A-12 Photo #5

Property Tract A-30 Photo #1

Property Tract A-30 Photo #3

Property Tract A-30 Photo #2



Property Tract A-31 Photo #21

Property Tract A-31 Photo #7

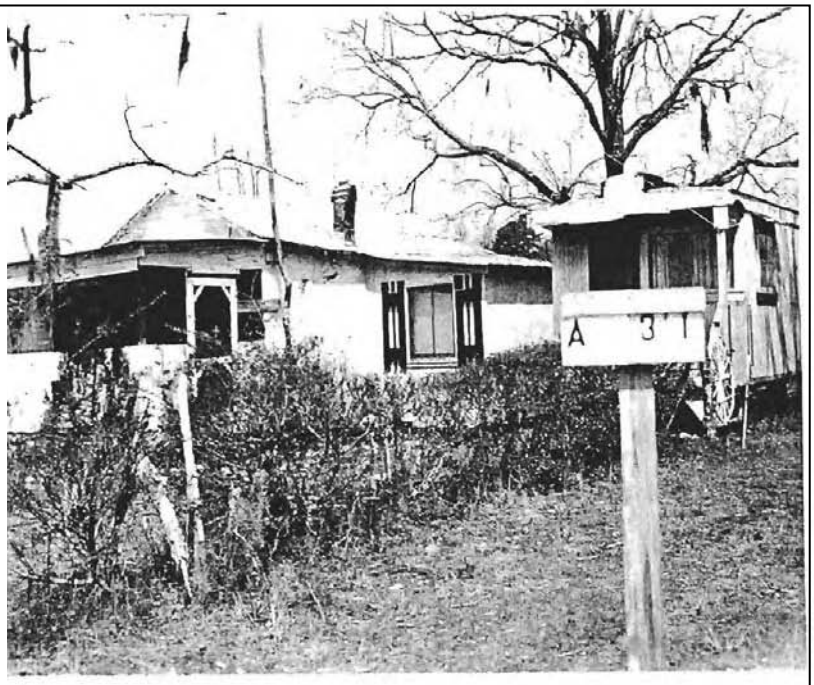
Property Tract A 31 Photo #3

Property Tract A 31 Photo #3

Property Tract A-31 Photo 5

Property Tract A-31 Photo 4

Property Tract A-31 Photo #6



Property Tract A-31 Photo #8

Property Tract A-33 Photo #2

Property Tract A-33 Photo #1

Appendix B
Results of Geophysical Investigation

Results of Geophysical Investigation

Knox Mobile Home Park, Camp Lejeune, North Carolina

Draft Submittal – March 28, 2006

Prepared By

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Plate

Plate1: EM61 MK2 Channel 2 Mosaic

Appendices

Appendix A: Example Color Contour Maps and Target Lists
Appendix B: Example EM61 Data QC Tests
Appendix C: GPS QC Test Plot
Appendix D: GPO Color Contour Maps and Target Lists
Appendix E: CD-ROM containing Grid Maps, Target Lists, EM61 Data

1 EXECUTIVE SUMMARY

NAEVA Geophysics, Inc. was contracted to conduct a geophysical investigation at Knox Mobile Home Park in Camp Lejeune, North Carolina. The purpose of this investigation was to map a 133-acre site, 38 acres of which compose the trailer park itself, with the remaining 95 acres in the surrounding wooded area. The area of investigation may have been used as a hand grenade range at an unknown time. While there are no clear documents supporting the existence of an active firing range in this area, four grenades were uncovered within the trailer park. Due to this, geophysical data were evaluated for targets the size and shape of an MK-II or MK-IIA hand grenade.

Geophysical investigations were conducted in two phases. Phase One utilized a dual sensor EM61 MK2 Towed Array system. Phase Two involved one or two single sensor EM61 MK2 systems in hand-towed wheel mode. Phase One was completed on December 23, 2005, and Phase Two was completed on February 23, 2006.

A total of 90.9 acres were surveyed, including the 38 acres within the trailer park and 53 acres of the surrounding wooded area. This is less than the initially proposed 133 acres due to budgetary constraints. A total of 55,230 anomalies were detected and targeted during this investigation. Target lists and maps were provided to CH2M HILL.

2 INTRODUCTION

NAEVA Geophysics, Inc. was contracted by CH2M HILL to conduct digital geophysical mapping of 133 acres in and around Knox Mobile Home Park at MCB Camp Lejeune, North Carolina. The primary objective of the geophysical mapping was to locate Munitions and Explosives of Concern (MEC). The geophysical mapping was to precede the Public Private Venture (PPV) development of this area. The existing Knox Mobile Home Park consists of approximately 38 acres of relatively level ground with few trees. The remaining 95 acres surrounding the Trailer Park consist of moderate to heavily wooded areas. Site preparation work

included brush removal and land surveying of 100-foot by 100-foot grid corners. The geophysical investigation took place in multiple phases from December 8, 2005 to February 23, 2006. The final acreage surveyed (90.9 acres) was less than originally proposed due to budgetary constraints.

3 BACKGROUND

Before development of the trailer park in the early 1950's, the area known as Knox Mobil Home Park was used for a variety of military purposes. Although these purposes include dog training and body armor testing, both of which required some use of explosives, there are no records of Knox Mobil Home Park as an established live fire range. The discovery of four hand grenades (MK-II and MK-IIA1) during bulldozer excavation between 1974 and 1976 indicate that this area may have been included in a historic hand grenade range [called the Knox Trailer Park Grenade Range (Area A)].

4 METHODS

Data collection for the digital geophysical mapping for this project took place in two phases. Phase One involved the use of a towed array system, containing two Geonics EM61 MK2 (1m x 0.5m coil) electromagnetic metal detectors in conjunction with Trimble 5700 Real-Time Kinematic (RTK) Global Positioning System (GPS) equipment. During this phase, data collection was limited to the 33 acres of open terrain within the trailer park. Phase Two of the data collection employed one or two teams, each with a single EM61 MK2 metal detector in hand-towed wheel mode. During this phase, data collection took place in the 58 acres of brush-cleared wooded areas surrounding the trailer park, as well as additional locations within the trailer park that could not be collected with the towed array due to accessibility or limited GPS coverage.

4.1 Geonics EM61 MK2 (Electromagnetics)

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 EM61 MK2 system consists of two air-cored coils, a digital

data recorder, batteries and processing electronics. The EM61 MK2's transmitter generates a pulsed primary magnetic field, which then induces eddy currents in nearby metallic objects producing a secondary magnetic field. Each of the two spatially separated receiver coils measures these secondary fields. The EM61 MK2 offers the ability to measure the secondary fields at three distinct time intervals in the bottom coil or four intervals if no top coil measurements are recorded. Earlier time gates provide enhanced detection of smaller metallic objects. Secondary voltages induced in both coils by the secondary magnetic field are measured in millivolts (mV). Target resolution of approximately 0.5 meters is expected with the system. EM61 data were initially stored in a hand-held data logger or field PC. Following the completion of each data file, data were transferred to a laptop computer for preliminary evaluation and editing.

4.1.1 Dual EM61 MK2 Towed Array System

NAEVA employed the towed array system in those sections of Knox Trailer Park that were relatively free of tree cover (approximately 33 acres) during Phase One of data collection. The array consists of two 1m x 0.5m coils encased in a durable poly-plastic sled that rests directly on the ground (Figure 1). Coil heights can be adjusted within the sled, but were maintained at the height of 35 cm above the ground for the duration of the project. The system was towed by an eight-wheeled Argo all-terrain vehicle. A 14-ft tongue attached the coil assembly to the tow vehicle and maintained sufficient separation so that the vehicle did not influence the geophysical data. A single GPS sensor was mounted over the center of the two coils to provide real-time positional tracking capabilities. System electronics were securely mounted in the vehicle's rear compartment while the field computer was located in the driver's compartment to allow continuous monitoring of system function. The Geometrics MagLog software was used to continuously record GPS and EM61 data in addition to recording cultural features.

Figure 1. Data collection with the towed array system.

4.1.2 Trimble 5700 RTK GPS system

A Trimble 5700 RTK GPS system was used for the real-time acquisition of positional data during geophysical data collection with the towed array. A GPS base station, utilizing a Trimble 5700 receiver, was used in conjunction with a rover antenna mounted over the center of the EM61 MK2 coils for data collection. Real-time corrections were broadcast to the roving GPS unit via a radio link using TrimMark 3 radio modems. This system provides positional updates at a rate of 1 Hz, with an accuracy of 3-cm horizontal. During data collection with the towed array system, the positional data were stored along with the EM61 MK2 readings in a single file on a Toughbook field computer for later downloading and editing.

The base station, GPO and grid corner positions supplied to the surveyor were in a North Carolina State Plane coordinate system, NAD83.

4.1.3 Hand-Towed EM61 MK2 Data Collection

Phase Two of data collection for this project involved hand-towed operation of an EM61 MK2. Due to tree cover conditions in approximately 95 acres of the survey area (which limits GPS capabilities as well as towed array maneuverability), the EM61 was operated in wheel mode across this terrain. Coil height for the bottom

coil, dictated by the height of the manufacturer-supplied wheels, was 40cm above the ground surface. The EM61 data were recorded with an Allegro data logger and Geonics EM61MK2 acquisition software, set to record data at a rate of 10 Hz. Two teams, each equipped with an EM61 MK2, were used during this phase of data collection whenever feasible. Only one team was in operation between January 19, 2006 and February 10, 2006 in an effort to give the brush clearance team enough time to complete an area before a geophysics team caught up to them.

Figure 2. Hand-towed wheel mode data collection with an EM61 MK2

The 100-foot x 100-foot grid corners that were staked in by the surveyor prior to data collection were used for ground control during hand-towed data collection. Measuring tapes were pulled parallel to the direction of the survey across two grids, while fiducial ropes were pulled perpendicular to the survey. Ropes were marked for a line spacing of 2.5 feet and generally placed 25 feet apart. In this manner, the ropes were used to ensure straight lines of data were recorded and to allow the placement of fiducial markers in the data set. The measuring tapes could be used for marking the position of culture or other obstructions as the two 100 x 100 grids were collected.

5 GEOPHYSICAL PROVE-OUT (GPO)

A 200-foot x 60-foot test plot was established for the GPO which allowed the field teams to demonstrate the effectiveness of all instrumentation, methods, and personnel prior to the initiation of fieldwork. The GPO was surveyed first with no seed items to

determine the background response, and then with seed items that were chosen to represent the type of anomalies that would be found in the survey area. Although NAEVA was not provided with the locations of the seeded objects, the results of the seeded GPO show a number of discrete anomalies. Both the hand-towed teams completed GPO surveys on December 6, 2005. The Towed Array System was not used to survey the GPO until December 8, 2005 due to logistical issues. The results of all seeded GPO surveys can be found in Appendix D.

6 QUALITY CONTROL DATA

Quality control (QC) procedures were conducted in order to document the proper operation of equipment and techniques. The QC tests were also used to identify any technical problems with the equipment or personnel prior to initiating production mapping. The QC tests conducted at the sites are described below. Samples of various quality control data are included in Appendix B of this report. All QC test results are included in digital format on the CD found in Appendix E of this report, including descriptions and/or explanations of any test irregularities.

6.1.1 Cable Shake Tests

A cable shake test was performed each day, prior to the start of data collection. The cable shake test was performed by logging background data for approximately thirty seconds, followed by measuring the response to the shaking of the EM61 cable(s) for thirty seconds, and then again measuring the background for thirty seconds. In the case of the towed array, both cables were tested for response by shaking. This test is used to observe and document any noise that may result from faulty cables or connections. The only cable shake test failure came as a result of an apparent power surge in nearby power lines (see appendix B for samples).

6.1.2 Personnel Tests

A personnel test was performed each day with the instrument and personnel, prior to data collection. This test was performed by logging background data for approximately thirty seconds, followed by measuring the response to personnel walking in the vicinity of the coils, and then again measuring the background for thirty seconds. During the hand-towed data collection phase of the project, each team

conducted their own personnel test with one member of the team recording data while the other walked in the vicinity of the coil. During the towed array data collection phase of the project, two members of the three-person team walked in the vicinity of the coils during the personnel test. This test is used to observe and document any noise that may result from having personnel work in the vicinity of the coils during data collection. The only personnel test failure came as the result of apparent ambient noise, which occurs on a portion of one line (see Appendix B for examples).

6.1.3 Six Line Test

On the first day of data collection, a "Six Line Test" was conducted in hand-towed mode as well as with the Dual EM61 MK2 Towed Array System. An area west of the GPO grid was found to have relatively quiet background and was selected for the test line. A 40-foot long line was established, oriented roughly north-south. The test was conducted in the following manner: Line 1 was surveyed to the north, with no test object. Line 2 was surveyed to the south (along the same line) with no test object. Lines 3 and 4 are the same as 1 and 2, respectively, with a test item (an eight-inch nail) placed at the mid-point of the line. Line 5 was surveyed to the north at an unusually quick pace, and Line 6 to the south using an unusually slow pace, both with the test object in place. This test helps document sensor response to a standard object, system latency, and positional accuracy. The results from the six line tests can be found in Appendix B.

6.1.4 Static Tests

A static test was performed each day, prior to and following data collection. The static tests were performed by logging background data for approximately one minute, followed by measuring the response to the standard calibration item for one minute, and then again measuring the background for one minute. The calibration item used with the towed array system was a sledgehammer. The calibration item used with the hand-towed systems was a two-inch trailer ball. These tests are used to document the consistency of instrument response and to identify any abnormal instrument drift or noise.

A small number of the static tests failed the criteria set forth in the Work Plan. The most common cause was determined to be ambient noise and/or power surges from nearby power lines (see Appendix B for examples).

6.1.5 Latency Lines

Within the survey area at Knox Mobil Home Park, a line with a known item was established for latency/lag checks. The known item used was an eight-inch nail that was placed in the middle of a fifty-foot test line. The hand-towed latency lines were collected with the coil centered over the known item. The towed array latency lines were collected with the item centered between the two coils. Data were acquired with the instrument over the established line prior to and following data collection each day. The purpose of these tests was to demonstrate the latency/lag present in the data positioning. Most of the latency lines in this project were failed by the Geosoft QA/QC software, although when checked manually it is apparent that they are within the tolerance, and the apparent failure appears to be caused by a defect in the program (see Appendix B for examples).

6.1.6 Repeat Lines

Repeat data were collected with both the hand-towed and the dual EM61 MK2 towed array system. In both types of surveys, approximately 3% of the line footage for the surveyed area was recollected to demonstrate repeatability in the instrument response and positioning. Profiles of the repeat lines were plotted alongside the original lines, providing a direct comparison. Each profile was evaluated and determined to show acceptable repeatability in the instrument's response and data positioning (see Appendix B for examples).

6.1.7 GPS QC Check

Prior to each day of data collection with the towed array, the GPS antenna was positioned over a known point and its location was recorded. The purpose of this test is to demonstrate that the GPS was functioning properly and was consistently providing an accurate positional coordinate for the known point. Results of the GPS QC check, including distribution of all points, can be seen in Appendix C.

7 DATA PROCESSING

The geophysical data were temporarily stored in the instrument logger or field computer and then downloaded into a laptop computer for on-site review and editing. Preliminary contour maps were then created for field review. Once in-field editing was completed, the data were electronically transferred to NAEVA's Virginia office for preprocessing, final processing, analysis/target selection and final map production. Geosoft's Oasis Montaj software package was employed to process and contour the data, and to identify and characterize potential MEC targets.

7.1 Dual EM61 MK2 Towed Array Data Processing

7.1.1 Preprocessing

Raw data files had sensor offsets applied and were converted to ASCII format using Geomar Software's Multi61MK2 program. Data were then imported into Geosoft's Oasis Montaj where the following steps were performed:

- Conversion of geographic coordinates to projected state plane coordinates
- Evaluation of data coverage
- Evaluation of data density
- Application of auto leveling and instrument drift corrections
- Application of default lag correction
- Generation of preliminary contour map(s) from gridded data
- Generation of formatted ASCII file containing preprocessed data
- Generation of Planimetric Map for tracking survey progress

7.1.2 Final Processing

After completion of preprocessing, the data were further evaluated and processed to generate final processed data files. Final processing included the following steps:

- Evaluation and refinement of auto leveling and instrument drift corrections
- Evaluation and refinement of lag correction
- Additional digital filtering and enhancement, as necessary
- Generation of formatted ASCII file containing processed data
- Merging of final processed data into a master database containing all towed array data.
- Generation of final maps for each grid containing contoured, gridded data and target locations.

Final processed data were submitted for each dataset. Targets were selected from the data in the master database and processed data files for individual 100-foot x 100-foot

grids were subset from the master database. Final processed data for each grid with target selections and a final map were then submitted.

7.1.3 Analysis and Target Selection

The UX-Detect module within Oasis Montaj identifies peak amplitude responses of the frequency associated with, but not limited to, MEC items. Anomalies may generate multiple target designations depending on individual signature characteristics. Each of the anomalies selected by Geosoft as a target was analyzed by trained geophysicists, and evaluated as to its validity and position. Targets found to be invalid or incorrectly located were removed or adjusted. Additionally, anomalies that were not selected by the UX-Detect module, yet deemed to represent a potential MEC target, were manually selected. Target selection was performed on final processed data for the second time-gate of the bottom coil of the EM61 MK2. Each target list provides a unique Target ID, x and y state plane coordinate locations for each target, the recorded peak response, and any appropriate comments (i.e. Culture or Suspected Utility).

7.2 Hand-Towed EM61 MK2 Data Processing

7.2.1 Preprocessing

Raw data files were edited and converted using Geonics DAT61MK2 software. Data were then imported into Geosoft's Oasis Montaj to perform the following:

- Conversion of local grid coordinates to projected state plane coordinates
- Evaluation of data density
- Application of auto leveling and instrument drift corrections
- Application of default lag correction
- Generation of preliminary contour map(s) from gridded data
- Generation of formatted ASCII file containing preprocessed data
- Generation of Planimetric Map for tracking survey progress

7.2.2 Final Processing

After completion of preprocessing, the data were further evaluated and processed to generate final processed data files. Final processing steps included:

- Evaluation and refinement of auto leveling and instrument drift corrections
- Evaluation and refinement of lag correction
- Additional digital filtering and enhancement, as necessary

- Targeting of data, as described below in Section 7.2.3
- Splitting datasets into individual 100-foot x 100-foot grid files
- Generation of formatted ASCII file containing processed data
- Generation of final maps for each grid showing contoured, gridded data and target locations.

7.2.3 Analysis and Target Selection

The UX-Detect module within Oasis Montaj identifies peak amplitude responses of the frequency associated with, but not limited to, MEC items. Anomalies may generate multiple target designations depending on individual signature characteristics. Initial target selections were made based on the gridded data. Data profiles corresponding to the anomalies selected by Geosoft are then analyzed by trained geophysicists, with the targets evaluated as to their validity and position. Targets found to be invalid or incorrectly located were removed or adjusted. Additionally, anomalies that were not selected by the UX-Detect module, yet deemed to represent a potential MEC target, were manually selected. Target selection was performed on final processed data for the second time-gate of the bottom coil of the EM61 MK2. Each target list provides a unique Target ID, x and y state plane coordinate location for each target, the recorded peak response, and any appropriate comments (i.e. Culture or Suspected Utility).

7.3 Quality Control Data Processing

The quality control tests conducted throughout the project were evaluated using Geosoft's QA/QC software. Standard tolerance parameters were input and the data were tested to ensure that tolerance levels were not exceeded.

7.3.1 Cable Shake Tests

An acceptance criterion of +/- 2mV was used with the static calibration test software to evaluate the cable shake test data. Plots were generated showing the profiles associated with the static/background measurements and cable shake measurements. Any readings that fell outside the specified tolerance were flagged on the profile plots and documented in the QC Failure Explanations document.

7.3.2 Personnel Tests

An acceptance criterion of +/- 2mV was used with the static calibration test software to evaluate the personnel test data. Plots were generated showing the profiles associated with the static/background measurements and measurements taken as the personnel moved around the instrument. Any readings that fell outside the specified tolerance were flagged on the profile plots and documented in the QC Failure Explanations document.

7.3.3 Six Line Test

The six line test function in Oasis Montaj was used to measure and evaluate latency effects of the dual towed array and single hand-towed systems. The corrected data profiles are plotted on a map and the peak responses over the test item are evaluated for repeatability of response amplitude, positional accuracy and latency.

7.3.4 Static Tests

An acceptance criterion of +/- 2mV was used with the static calibration test software to evaluate the static test data. Plots were generated showing the profiles associated with the background measurements and measurements with the calibration object in place. Any readings that fell outside the specified tolerances were flagged on the profile plots and documented in the QC Failure Explanations document.

7.3.5 Latency Lines

The Dynamic response test function in Oasis Montaj was used to evaluate the latency line data. This function tests the instrument's peak response amplitude and positional accuracy over a know seed item and presents the data as stacked profiles wit the seed location displayed for visual inspection. After a lag correction was applied to the data, the positional accuracy was visually inspected for consistency among the tests. The peak amplitude response of the profiles was also evaluated for consistency.

7.3.6 Repeat Lines

Profile plots for repeated lines within each dataset were generated for visual inspection of positional and response repeatability. The plots display the instrument response for the original and resurveyed lines as stacked profiles. The repeatability of

the interpolated and offset GPS line path for the towed array system is depicted by displaying a comparison of the positional data below the response profiles.

8 RESULTS

Thirty-three of the 38 acres comprising the Knox Trailer Park were surveyed with the Towed Array System during Phase One of data collection. The remaining five acres were collected in hand-towed wheel mode during Phase Two. An additional 53 acres of data were collected from the north, west, south, and southeast portions of the surrounding wooded area. As the end of the project neared, data collection and brush clearance were focused on the land bordering the river, as well as eight 100-foot by 100-foot sample grids in the woods to the northeast of the trailer park (in which no geophysical data had been previously collected). Phase One was completed on December 23, 2005 and Phase Two was completed on February 23, 2006. A total of 90.9 acres were surveyed, resulting in the detection and targeting of 55,230 anomalies. Example contour maps and target lists can be found in Appendix B.

The contoured mosaic of the field area (Plate 1) and data CD accompanying this report show the success of the geophysical investigation in identifying the anomalous areas as well as numerous linear features of elevated response. The grid-like linear anomalies with responses that exceed 50 mV appear to be utilities which often run parallel to nearby roads. In addition to the linear features, there are two areas of elevated anomalous response that are apparently highly contaminated with metal. These areas include the current Knox Trailer Park and the historic trailer park on the west side of Camp Knox Road. It should be noted that these two large areas of extremely high response are so contaminated with metal that the resulting data may not be reliable for the targeting of MK-II and MK-IIA grenades.

The concentration of targeted anomalies is significantly reduced in the southwest and southeast sections of the area of investigation. The test grids to the northeast of the trailer park indicate that there may be fewer anomalies in this area as well. The data

from the southwest corner of the sit contains an increased number of targets which may be related to increased surface clutter or ambient noise.

Elevated geophysical responses are apparent in sections of the south end of the survey area, adjacent to the river. Field observations along portions of the river bank revealed the apparent disposal of a wide range of materials including reinforced concrete, tires with rims, and many other forms of metallic and non-metallic debris. It is assumed that much of this debris was emplaced in an effort to stabilize the riverbank. Current soil and brush cover makes it difficult to define the horizontal extent of this material.

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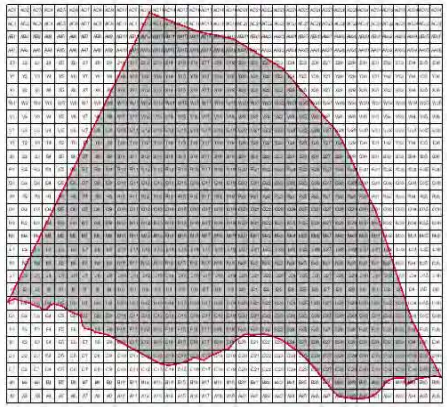
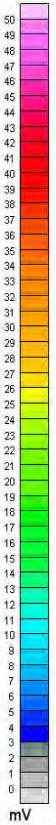
THE LEADER IN SUBSURFACE DETECTION

Subsurface Geophysical Surveys





Legend

Area of Investigation

N

Scale 1:2400

100 0 100 200 300 400 500 600

US survey foot

NAD83 / North Carolina CS83

Plate 1

Client: CH2M HILL

EM61 MK2 Bottom Coil - Channel 2 - Mosaic
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Surveys: December 9, 2005 to February 23, 2006
Date of Map Creation: March 14, 2006

APPENDIX A

Example Color Contour Maps and Target Lists

Grid F25 Contour Map and Target List

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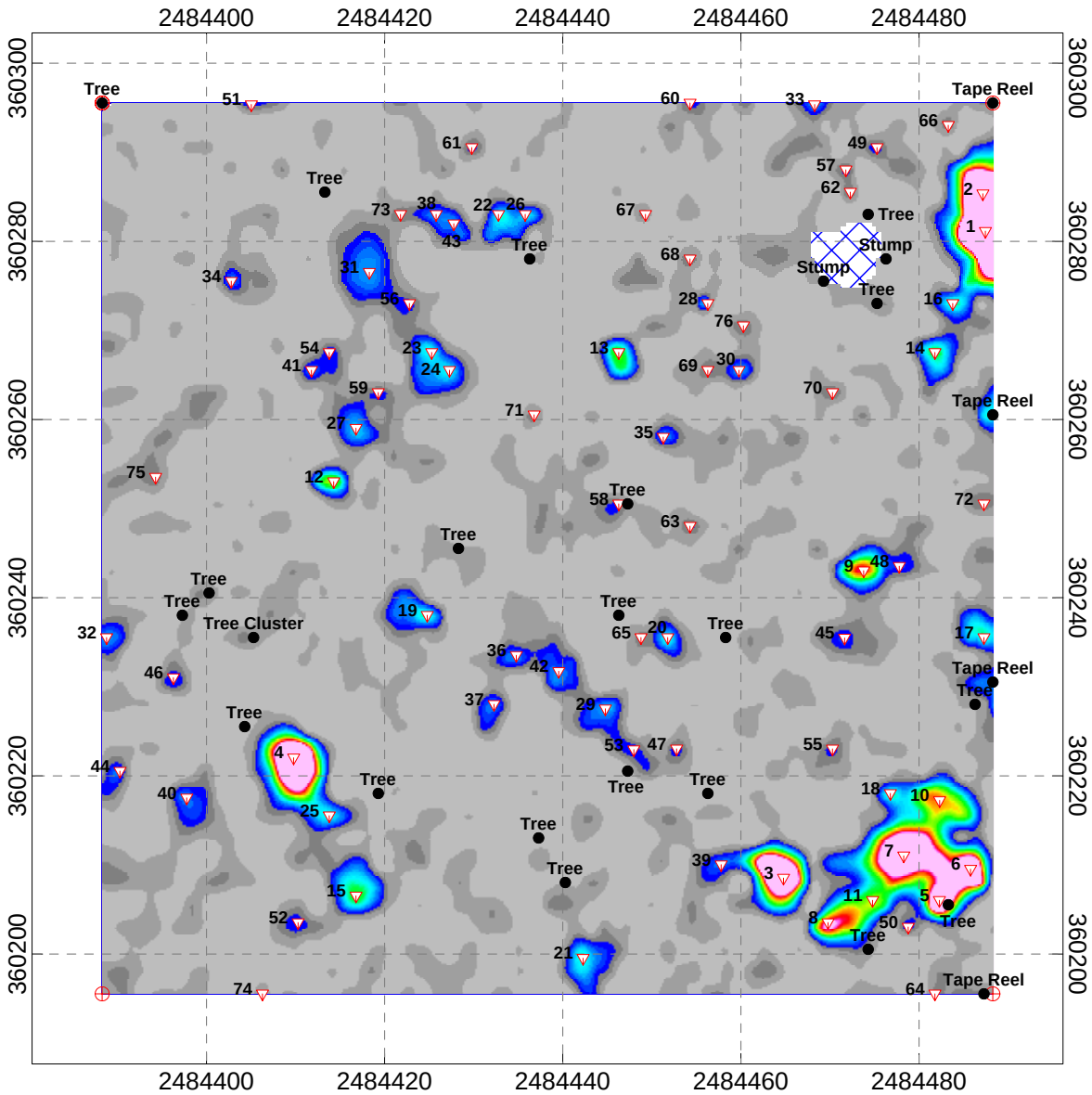
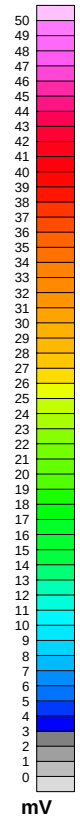
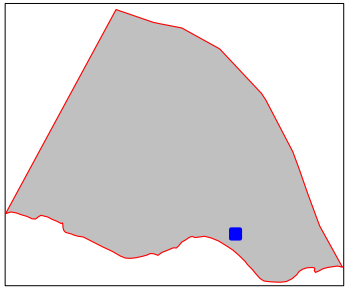
Subsurface Geophysical Surveys







Legend

Area of Investigation

2 Selected Target
(See Target Pick List For Response and Location)

Pole Culture Feature
(Unmarked gaps due to trees)

Grid Corner

Scale 1:240

10 0 10 20

US survey foot

NAD83 / North Carolina CS83

Client: CH2M HILL

EM61 MK2 Bottom Coil - Channel 2
Grid F25
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: February 21, 2006
Date of Map Creation: February 27, 2006

Map Approver: K. Lemley

Map File Name: Grid F25.map

CH2M Hill

Grid F25

Knox Mobile Home Park

Camp Lejeune, North Carolina

Target Pick Table (EM-61 MK2- Channel 2)

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
1	2484487.448	360281.1435	2522.72654	1		J. Purnhagen	F25	F25_1
2	2484487.167	360285.3533	1058.07077	1		J. Purnhagen	F25	F25_2
3	2484464.784	360208.535	213.910172	1		J. Purnhagen	F25	F25_3
4	2484409.784	360222.035	209.598999	1		J. Purnhagen	F25	F25_4
5	2484482.284	360206.035	192.278519	1		J. Purnhagen	F25	F25_5
6	2484485.784	360209.535	150.117127	1		J. Purnhagen	F25	F25_6
7	2484478.284	360211.035	141.197647	1		J. Purnhagen	F25	F25_7
8	2484469.784	360203.535	61.1255722	1		J. Purnhagen	F25	F25_8
9	2484473.784	360243.035	46.1021004	1		J. Purnhagen	F25	F25_9
10	2484482.302	360217.2471	33.1708432	1		J. Purnhagen	F25	F25_10
11	2484474.784	360206.035	25.6015739	1		J. Purnhagen	F25	F25_11
12	2484414.284	360253.035	24.8367901	1		J. Purnhagen	F25	F25_12

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
13	2484446.284	360267.535	22.2161465	1		J. Purnhagen	F25	F25_13
14	2484481.784	360267.535	16.5071602	1		J. Purnhagen	F25	F25_14
15	2484416.784	360206.535	15.6908865	1		J. Purnhagen	F25	F25_15
16	2484483.784	360273.035	15.0798225	1		J. Purnhagen	F25	F25_16
17	2484487.284	360235.535	14.6394806	1		J. Purnhagen	F25	F25_17
18	2484476.784	360218.035	14.4342003	1		J. Purnhagen	F25	F25_18
19	2484424.784	360238.035	13.5446711	1		J. Purnhagen	F25	F25_19
20	2484451.784	360235.535	11.3992758	1		J. Purnhagen	F25	F25_20
21	2484442.284	360199.535	11.3783121	1		J. Purnhagen	F25	F25_21
22	2484432.784	360283.035	11.2731886	1		J. Purnhagen	F25	F25_22
23	2484425.284	360267.535	11.2713165	1		J. Purnhagen	F25	F25_23
24	2484427.284	360265.535	11.0135899	1		J. Purnhagen	F25	F25_24
25	2484413.784	360215.535	11.0027151	1		J. Purnhagen	F25	F25_25
26	2484435.784	360283.035	9.41589451	1		J. Purnhagen	F25	F25_26
27	2484416.784	360259.035	8.47061920	1		J. Purnhagen	F25	F25_27
28	2484456.284	360273.035	8.15015984	1		J. Purnhagen	F25	F25_28
29	2484444.784	360227.535	8.06724358	1		J. Purnhagen	F25	F25_29

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
30	2484459.784	360265.535	7.37489796	1		J. Purnhagen	F25	F25_30
31	2484418.284	360276.535	6.85841417	1		J. Purnhagen	F25	F25_31
32	2484388.784	360235.535	6.62089157	1		J. Purnhagen	F25	F25_32
33	2484468.269	360295.3634	6.59996882	1		J. Purnhagen	F25	F25_33
34	2484402.784	360275.535	6.4744463	1		J. Purnhagen	F25	F25_34
35	2484451.284	360258.035	6.40190935	1		J. Purnhagen	F25	F25_35
36	2484434.784	360233.535	6.39195013	1		J. Purnhagen	F25	F25_36
37	2484432.284	360228.035	6.05876303	1		J. Purnhagen	F25	F25_37
38	2484425.784	360283.035	6.01387024	1		J. Purnhagen	F25	F25_38
39	2484457.784	360210.035	5.975667	1		J. Purnhagen	F25	F25_39
40	2484397.784	360217.535	5.97348166	1		J. Purnhagen	F25	F25_40
41	2484411.784	360265.535	5.91553211	1		J. Purnhagen	F25	F25_41
42	2484439.549	360231.7477	5.81381893	1		J. Purnhagen	F25	F25_42
43	2484427.761	360281.9854	5.63513756	1		J. Purnhagen	F25	F25_43
44	2484390.284	360220.535	5.48514986	1		J. Purnhagen	F25	F25_44
45	2484471.637	360235.4898	4.70285559	1		J. Purnhagen	F25	F25_45
46	2484396.284	360231.035	4.54061747	1		J. Purnhagen	F25	F25_46

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
47	2484452.784	360223.035	4.28619432	1		J. Purnhagen	F25	F25_47
48	2484477.784	360243.535	4.2347579	1		J. Purnhagen	F25	F25_48
49	2484475.284	360290.535	4.17996311	1		J. Purnhagen	F25	F25_49
50	2484478.784	360203.035	4.11252165	1		J. Purnhagen	F25	F25_50
51	2484405.028	360295.3634	4.08940455	1		J. Purnhagen	F25	F25_51
52	2484410.284	360203.535	4.0045352	1		J. Purnhagen	F25	F25_52
53	2484447.969	360222.9538	3.96595602	1		J. Purnhagen	F25	F25_53
54	2484413.784	360267.535	3.89665103	1		J. Purnhagen	F25	F25_54
55	2484470.284	360223.035	3.85829091	1		J. Purnhagen	F25	F25_55
56	2484422.784	360273.035	3.85311174	1		J. Purnhagen	F25	F25_56
57	2484471.784	360288.035	3.78170729	1		J. Purnhagen	F25	F25_57
58	2484446.284	360250.535	3.70320058	1		J. Purnhagen	F25	F25_58
59	2484419.284	360263.035	3.70027781	1		J. Purnhagen	F25	F25_59
60	2484454.284	360295.535	3.65364718	1		J. Purnhagen	F25	F25_60
61	2484429.784	360290.535	3.62631154	1		J. Purnhagen	F25	F25_61
62	2484472.284	360285.535	3.55075240	1		J. Purnhagen	F25	F25_62
63	2484454.284	360248.035	3.34448528	1		J. Purnhagen	F25	F25_63

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
64	2484481.784	360195.535	3.34202051	1		J. Purnhagen	F25	F25_64
65	2484448.784	360235.535	3.32427669	1		J. Purnhagen	F25	F25_65
66	2484483.284	360293.035	3.29670334	1		J. Purnhagen	F25	F25_66
67	2484449.284	360283.035	3.23725319	1		J. Purnhagen	F25	F25_67
68	2484454.284	360278.035	3.20872736	1		J. Purnhagen	F25	F25_68
69	2484456.284	360265.535	3.19612074	1		J. Purnhagen	F25	F25_69
70	2484470.284	360263.035	3.18363309	1		J. Purnhagen	F25	F25_70
71	2484436.784	360260.535	3.17453909	1		J. Purnhagen	F25	F25_71
72	2484487.284	360250.535	3.13888407	1		J. Purnhagen	F25	F25_72
73	2484421.784	360283.035	3.13602519	1		J. Purnhagen	F25	F25_73
74	2484406.284	360195.535	3.08370471	1		J. Purnhagen	F25	F25_74
75	2484394.284	360253.535	3.08203387	1		J. Purnhagen	F25	F25_75
76	2484460.284	360270.535	3.04646206	1		J. Purnhagen	F25	F25_76

Grid J7 Contour Map and Target List

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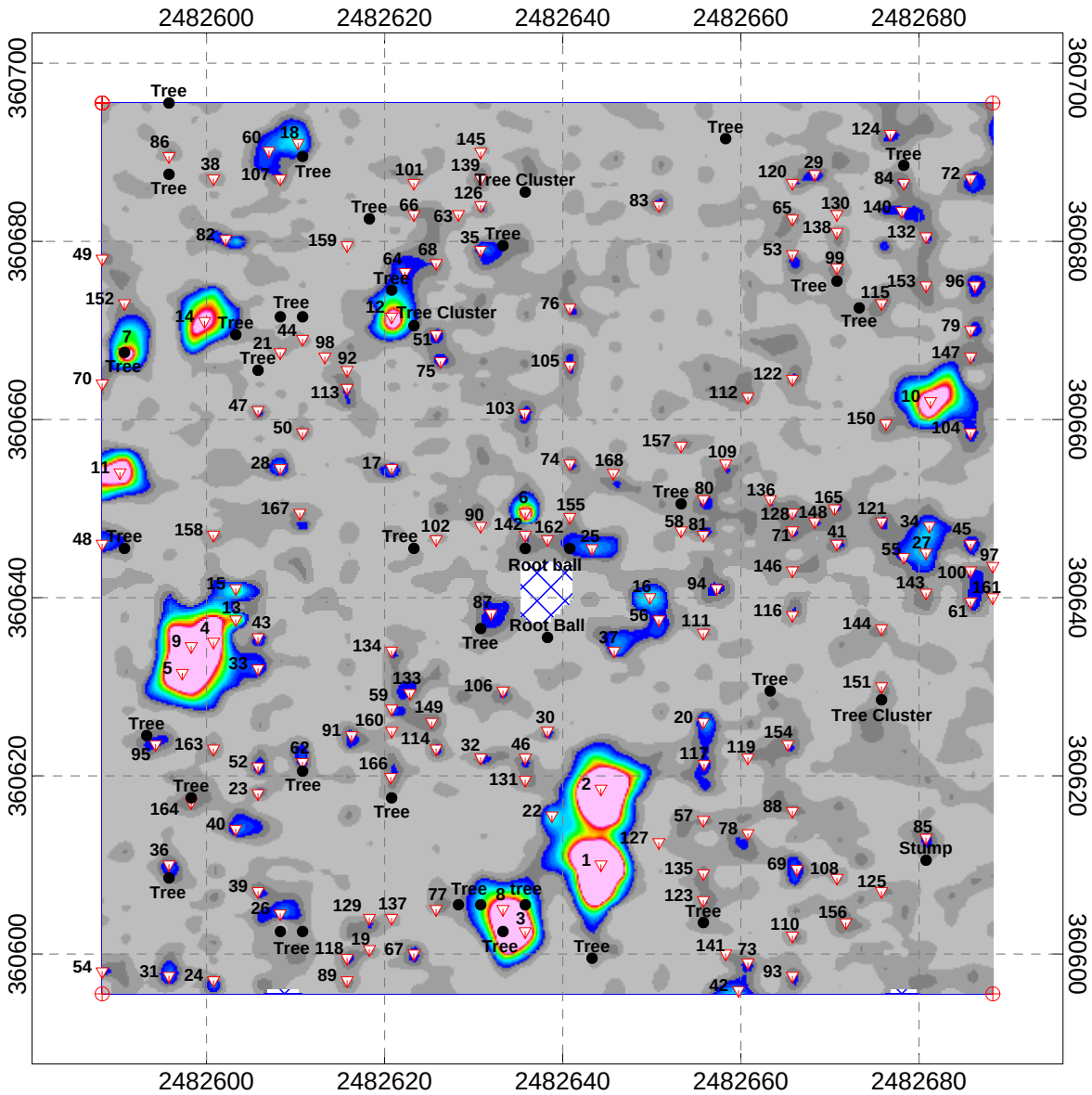
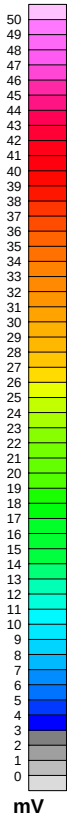
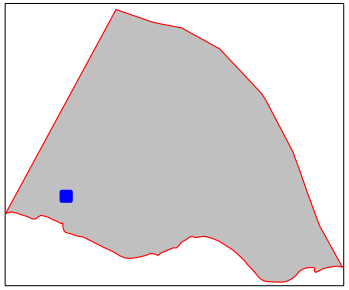
Subsurface Geophysical Surveys







Legend

Area of Investigation

2 Selected Target
(See Target Pick List For Response and Location)

Pole Culture Feature
(Unmarked gaps due to trees)

Grid Corner

Scale 1:240

10 0 10 20

US survey foot

NAD83 / North Carolina CS83

Client: CH2M HILL

EM61 MK2 Bottom Coil - Channel 2
Grid J7
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: January 31, 2006
Date of Map Creation: February 7, 2006

Map Approver: K. Lemley

Map File Name: Grid J7.map

CH2M Hill

Grid J7

Knox Mobile Home Park

Camp Lejeune, North Carolina

Target Pick Table (EM-61 MK2- Channel 2)

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
1	2482644.284	360610.035	1190.65552	1		E. McGlenn	J7	J7_1
2	2482644.284	360618.535	916.616211	1		E. McGlenn	J7	J7_2
3	2482635.784	360602.535	204.42836	1		E. McGlenn	J7	J7_3
4	2482600.784	360635.035	201.965347	1		E. McGlenn	J7	J7_4
5	2482597.284	360631.535	200.387146	1		E. McGlenn	J7	J7_5
6	2482635.784	360649.535	167.667328	1		E. McGlenn	J7	J7_6
7	2482590.784	360667.535	165.340958	1		E. McGlenn	J7	J7_7
8	2482633.284	360605.035	142.722015	1		E. McGlenn	J7	J7_8
9	2482598.284	360634.535	118.863022	1		E. McGlenn	J7	J7_9
10	2482681.284	360662.035	118.13073	1		E. McGlenn	J7	J7_10
11	2482590.284	360654.035	116.304833	1		E. McGlenn	J7	J7_11
12	2482620.784	360671.535	107.464325	1		E. McGlenn	J7	J7_12
13	2482603.284	360637.535	92.3792114	1		E. McGlenn	J7	J7_13
14	2482599.784	360671.035	60.4089088	1		E. McGlenn	J7	J7_14
15	2482603.284	360641.035	20.7506981	1		E. McGlenn	J7	J7_15

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
16	2482649.784	360640.035	11.9029083	1		E. McGlenn	J7	J7_16
17	2482620.784	360654.535	11.7343445	1		E. McGlenn	J7	J7_17
18	2482610.284	360691.035	10.5727377	1		E. McGlenn	J7	J7_18
19	2482618.284	360600.535	10.4547253	1		E. McGlenn	J7	J7_19
20	2482655.784	360626.035	10.3578758	1		E. McGlenn	J7	J7_20
21	2482608.284	360667.535	10.2515383	1		E. McGlenn	J7	J7_21
22	2482638.784	360615.535	10.2509394	1		E. McGlenn	J7	J7_22
23	2482605.784	360618.035	8.63383579	1		E. McGlenn	J7	J7_23
24	2482600.784	360597.035	8.24403095	1		E. McGlenn	J7	J7_24
25	2482643.284	360645.535	7.92900562	1		E. McGlenn	J7	J7_25
26	2482608.284	360604.535	7.90369844	1		E. McGlenn	J7	J7_26
27	2482680.784	360645.035	7.86103535	1		E. McGlenn	J7	J7_27
28	2482608.284	360654.535	7.77943945	1		E. McGlenn	J7	J7_28
29	2482668.284	360687.535	7.77196693	1		E. McGlenn	J7	J7_29
30	2482638.284	360625.035	7.26801062	1		E. McGlenn	J7	J7_30
31	2482595.784	360597.535	7.26373959	1		E. McGlenn	J7	J7_31
32	2482630.784	360622.035	7.17159081	1		E. McGlenn	J7	J7_32
33	2482605.784	360632.035	7.12853479	1		E. McGlenn	J7	J7_33
34	2482681.156	360648.0521	7.05911601	1		E. McGlenn	J7	J7_34
35	2482630.784	360679.035	6.99741793	1		E. McGlenn	J7	J7_35
36	2482595.784	360610.035	6.94928169	1		E. McGlenn	J7	J7_36

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
37	2482645.784	360634.035	6.83834267	1		E. McGlenn	J7	J7_37
38	2482600.784	360687.035	6.7195158	1		E. McGlenn	J7	J7_38
39	2482605.784	360607.035	6.52592754	1		E. McGlenn	J7	J7_39
40	2482603.284	360614.035	6.45929098	1		E. McGlenn	J7	J7_40
41	2482670.784	360646.035	6.40663004	1		E. McGlenn	J7	J7_41
42	2482659.734	360595.9349	6.12699092	1		E. McGlenn	J7	J7_42
43	2482605.784	360635.535	6.01890707	1		E. McGlenn	J7	J7_43
44	2482610.784	360669.035	5.97974491	1		E. McGlenn	J7	J7_44
45	2482685.784	360646.035	5.82864666	1		E. McGlenn	J7	J7_45
46	2482635.784	360622.035	5.81945849	1		E. McGlenn	J7	J7_46
47	2482605.784	360661.035	5.8081193	1		E. McGlenn	J7	J7_47
48	2482588.284	360646.035	5.797328	1		E. McGlenn	J7	J7_48
49	2482588.284	360678.035	5.73535967	1		E. McGlenn	J7	J7_49
50	2482610.784	360658.535	5.70974493	1		E. McGlenn	J7	J7_50
51	2482625.784	360669.535	5.60855293	1		E. McGlenn	J7	J7_51
52	2482605.784	360621.035	5.38081312	1		E. McGlenn	J7	J7_52
53	2482665.784	360678.535	5.32299423	1		E. McGlenn	J7	J7_53
54	2482588.284	360598.035	5.32128954	1		E. McGlenn	J7	J7_54
55	2482678.284	360644.535	5.23118448	1		E. McGlenn	J7	J7_55
56	2482650.784	360637.535	5.21482277	1		E. McGlenn	J7	J7_56
57	2482655.784	360615.035	5.1471386	1		E. McGlenn	J7	J7_57

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
58	2482653.284	360647.535	5.08270788	1		E. McGlenn	J7	J7_58
59	2482620.784	360627.535	5.07434607	1		E. McGlenn	J7	J7_59
60	2482607.002	360690.1604	5.05466036	1		E. McGlenn	J7	J7_60
61	2482685.784	360639.535	5.04945374	1		E. McGlenn	J7	J7_61
62	2482610.784	360621.535	5.03974485	1		E. McGlenn	J7	J7_62
63	2482628.284	360683.035	4.99547863	1		E. McGlenn	J7	J7_63
64	2482622.284	360676.535	4.92144775	1		E. McGlenn	J7	J7_64
65	2482665.784	360682.535	4.83293057	1		E. McGlenn	J7	J7_65
66	2482623.284	360683.035	4.78861904	1		E. McGlenn	J7	J7_66
67	2482623.284	360600.035	4.75740051	1		E. McGlenn	J7	J7_67
68	2482625.784	360677.535	4.72183466	1		E. McGlenn	J7	J7_68
69	2482666.284	360609.535	4.59281158	1		E. McGlenn	J7	J7_69
70	2482588.284	360664.035	4.47396135	1		E. McGlenn	J7	J7_70
71	2482665.784	360647.535	4.47385931	1		E. McGlenn	J7	J7_71
72	2482685.784	360687.035	4.45508909	1		E. McGlenn	J7	J7_72
73	2482660.784	360599.035	4.44980145	1		E. McGlenn	J7	J7_73
74	2482640.784	360655.035	4.44930744	1		E. McGlenn	J7	J7_74
75	2482626.284	360666.535	4.40990400	1		E. McGlenn	J7	J7_75
76	2482640.784	360672.535	4.38930798	1		E. McGlenn	J7	J7_76
77	2482625.784	360605.035	4.31430721	1		E. McGlenn	J7	J7_77
78	2482660.784	360613.535	4.27830124	1		E. McGlenn	J7	J7_78

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
79	2482685.784	360670.035	4.26828766	1		E. McGlenn	J7	J7_79
80	2482655.784	360651.035	4.23214769	1		E. McGlenn	J7	J7_80
81	2482655.784	360647.035	4.22261095	1		E. McGlenn	J7	J7_81
82	2482602.144	360680.2563	4.12261407	1		E. McGlenn	J7	J7_82
83	2482650.784	360684.035	4.11958647	1		E. McGlenn	J7	J7_83
84	2482678.284	360686.535	4.07754135	1		E. McGlenn	J7	J7_84
85	2482680.784	360613.035	4.06883431	1		E. McGlenn	J7	J7_85
86	2482595.784	360689.535	4.06870937	1		E. McGlenn	J7	J7_86
87	2482631.957	360638.2332	4.0344046	1		E. McGlenn	J7	J7_87
88	2482665.784	360616.035	4.00677967	1		E. McGlenn	J7	J7_88
89	2482615.784	360597.035	3.99853635	1		E. McGlenn	J7	J7_89
90	2482630.784	360648.035	3.96090436	1		E. McGlenn	J7	J7_90
91	2482616.284	360624.535	3.92911387	1		E. McGlenn	J7	J7_91
92	2482615.784	360665.535	3.91395736	1		E. McGlenn	J7	J7_92
93	2482665.784	360597.535	3.91019845	1		E. McGlenn	J7	J7_93
94	2482657.284	360641.035	3.8899231	1		E. McGlenn	J7	J7_94
95	2482594.284	360623.535	3.88873339	1		E. McGlenn	J7	J7_95
96	2482686.284	360675.035	3.88670683	1		E. McGlenn	J7	J7_96
97	2482688.284	360643.535	3.8548584	1		E. McGlenn	J7	J7_97
98	2482613.284	360667.035	3.85001993	1		E. McGlenn	J7	J7_98
99	2482670.784	360677.035	3.84515762	1		E. McGlenn	J7	J7_99

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
100	2482685.784	360643.035	3.79596424	1		E. McGlenn	J7	J7_100
101	2482623.284	360686.535	3.78691363	1		E. McGlenn	J7	J7_101
102	2482625.784	360646.535	3.75598073	1		E. McGlenn	J7	J7_102
103	2482635.727	360660.7093	3.73967456	1		E. McGlenn	J7	J7_103
104	2482685.784	360658.535	3.72765422	1		E. McGlenn	J7	J7_104
105	2482640.784	360666.035	3.71930766	1		E. McGlenn	J7	J7_105
106	2482633.284	360629.535	3.67869520	1		E. McGlenn	J7	J7_106
107	2482608.284	360687.035	3.67060733	1		E. McGlenn	J7	J7_107
108	2482670.784	360608.535	3.65908742	1		E. McGlenn	J7	J7_108
109	2482658.284	360655.035	3.64979219	1		E. McGlenn	J7	J7_109
110	2482665.784	360602.035	3.58819342	1		E. McGlenn	J7	J7_110
111	2482655.784	360636.035	3.57868576	1		E. McGlenn	J7	J7_111
112	2482660.784	360662.535	3.56663299	1		E. McGlenn	J7	J7_112
113	2482615.784	360663.535	3.55580711	1		E. McGlenn	J7	J7_113
114	2482625.784	360623.035	3.54230499	1		E. McGlenn	J7	J7_114
115	2482675.784	360673.035	3.53351235	1		E. McGlenn	J7	J7_115
116	2482665.784	360638.035	3.53307128	1		E. McGlenn	J7	J7_116
117	2482655.864	360621.3422	3.51897322	1		E. McGlenn	J7	J7_117
118	2482615.784	360599.535	3.51451898	1		E. McGlenn	J7	J7_118
119	2482660.784	360622.035	3.48396349	1		E. McGlenn	J7	J7_119
120	2482665.784	360686.535	3.46457744	1		E. McGlenn	J7	J7_120

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
121	2482675.784	360648.535	3.46298957	1		E. McGlenn	J7	J7_121
122	2482665.784	360664.535	3.46006441	1		E. McGlenn	J7	J7_122
123	2482655.784	360606.035	3.45691466	1		E. McGlenn	J7	J7_123
124	2482676.784	360692.035	3.45343304	1		E. McGlenn	J7	J7_124
125	2482675.784	360607.035	3.44835448	1		E. McGlenn	J7	J7_125
126	2482630.784	360684.035	3.42741466	1		E. McGlenn	J7	J7_126
127	2482650.784	360612.535	3.38778186	1		E. McGlenn	J7	J7_127
128	2482665.784	360649.535	3.3858738	1		E. McGlenn	J7	J7_128
129	2482618.284	360604.035	3.3855927	1		E. McGlenn	J7	J7_129
130	2482670.784	360683.035	3.3584044	1		E. McGlenn	J7	J7_130
131	2482635.784	360619.535	3.34945846	1		E. McGlenn	J7	J7_131
132	2482680.784	360680.535	3.33823252	1		E. McGlenn	J7	J7_132
133	2482622.819	360629.289	3.3309858	1		E. McGlenn	J7	J7_133
134	2482620.784	360634.035	3.32434607	1		E. McGlenn	J7	J7_134
135	2482655.784	360609.035	3.32085705	1		E. McGlenn	J7	J7_135
136	2482663.284	360651.035	3.31645775	1		E. McGlenn	J7	J7_136
137	2482620.784	360604.035	3.28828859	1		E. McGlenn	J7	J7_137
138	2482670.784	360681.035	3.28766727	1		E. McGlenn	J7	J7_138
139	2482630.784	360687.035	3.27185059	1		E. McGlenn	J7	J7_139
140	2482678.075	360683.3897	3.27048127	1		E. McGlenn	J7	J7_140
141	2482658.284	360600.035	3.23131704	1		E. McGlenn	J7	J7_141

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
142	2482635.784	360647.035	3.2272923	1		E. McGlenn	J7	J7_142
143	2482680.784	360640.535	3.22384548	1		E. McGlenn	J7	J7_143
144	2482675.784	360636.535	3.22353435	1		E. McGlenn	J7	J7_144
145	2482630.784	360690.035	3.19598746	1		E. McGlenn	J7	J7_145
146	2482665.784	360643.035	3.18958664	1		E. McGlenn	J7	J7_146
147	2482685.784	360667.035	3.17463660	1		E. McGlenn	J7	J7_147
148	2482668.284	360648.535	3.16964865	1		E. McGlenn	J7	J7_148
149	2482625.284	360626.035	3.15435004	1		E. McGlenn	J7	J7_149
150	2482676.284	360659.535	3.15327144	1		E. McGlenn	J7	J7_150
151	2482675.784	360630.035	3.15099549	1		E. McGlenn	J7	J7_151
152	2482590.784	360673.035	3.14920688	1		E. McGlenn	J7	J7_152
153	2482680.784	360675.035	3.13792038	1		E. McGlenn	J7	J7_153
154	2482665.284	360623.535	3.13005352	1		E. McGlenn	J7	J7_154
155	2482640.784	360649.035	3.08378744	1		E. McGlenn	J7	J7_155
156	2482671.784	360603.535	3.0804317	1		E. McGlenn	J7	J7_156
157	2482653.284	360657.035	3.07669377	1		E. McGlenn	J7	J7_157
158	2482600.784	360647.035	3.07184410	1		E. McGlenn	J7	J7_158
159	2482615.784	360679.535	3.07074547	1		E. McGlenn	J7	J7_159
160	2482620.784	360625.035	3.06434584	1		E. McGlenn	J7	J7_160
161	2482688.284	360640.035	3.05735016	1		E. McGlenn	J7	J7_161
162	2482638.284	360646.535	3.04683423	1		E. McGlenn	J7	J7_162

Target_ID	*X_SP*	*Y_SP*	*Grid_value*	*Mask*	*Comments*	*Responsible*	*Grid_ID*	*Unique_ID*
163	2482600.784	360623.035	3.03740239	1		E. McGlenn	J7	J7_163
164	2482598.284	360617.035	3.00138640	1		E. McGlenn	J7	J7_164
165	2482670.507	360650.006	2.95533010	1		E. McGlenn	J7	J7_165
166	2482620.68	360619.8586	2.68294790	1		E. McGlenn	J7	J7_166
167	2482610.472	360649.5108	2.34657026	1		E. McGlenn	J7	J7_167
168	2482645.665	360653.9829	1.02172562	1		E. McGlenn	J7	J7_168

Grid Q18 Contour Map and Target List

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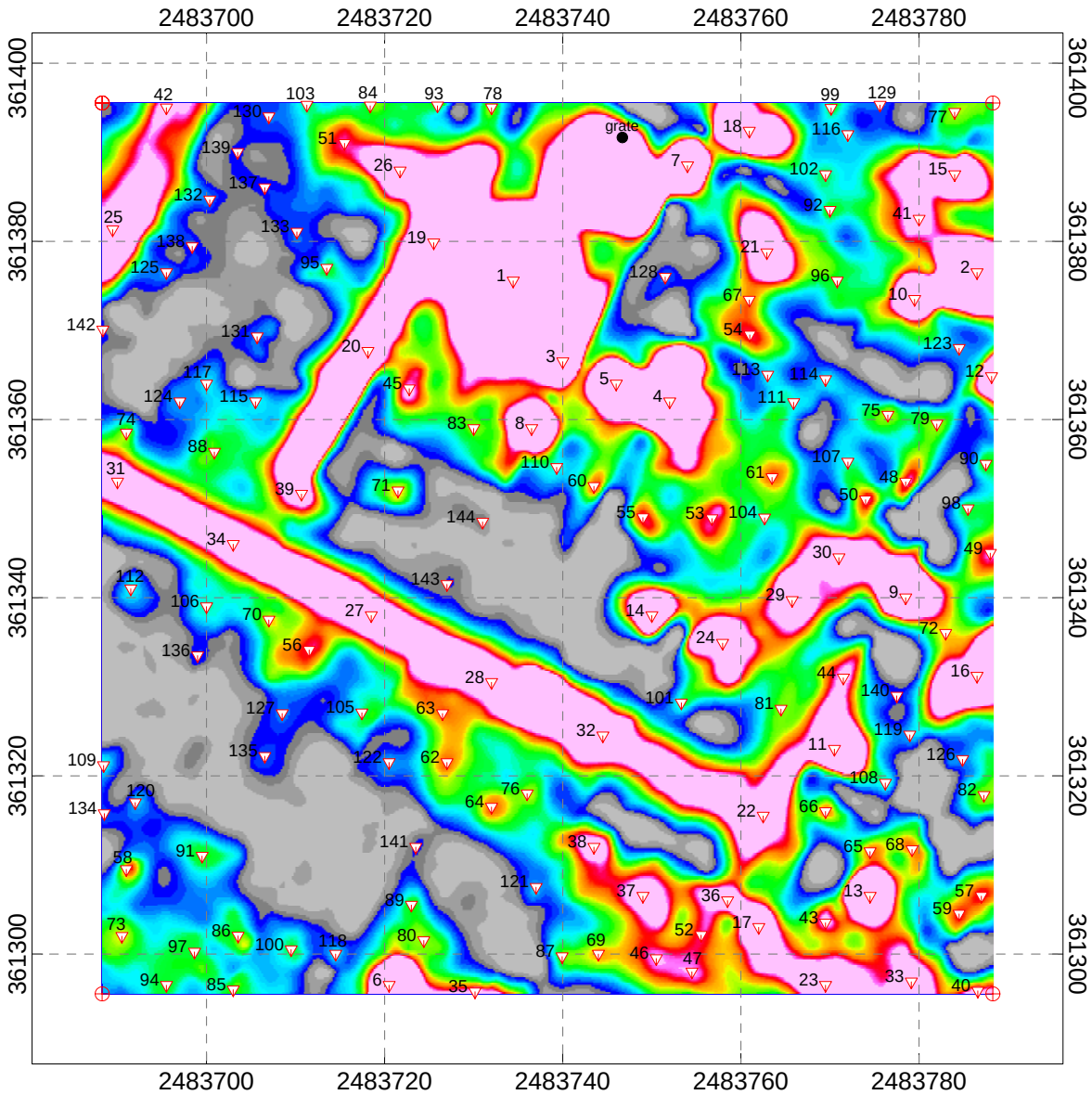
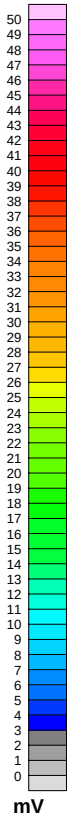
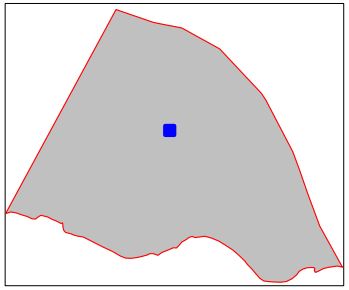
Subsurface Geophysical Surveys







Legend

Area of Investigation

2 Selected Target
(See Target Pick List For Response and Location)

Pole Culture Feature
(Unmarked gaps due to trees)

Grid Corner

Scale 1:240

10 0 10 20

US survey foot

NAD83 / North Carolina CS83

Client: CH2M HILL

EM61 MK2 Bottom Coil - Channel 2
Grid Q18
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: December 13 & 15, 2005
Date of Map Creation: February 20, 2006

Map Approver: K. Lemley

Map File Name: Grid Q18.map

CH2M Hill

Grid Q18

Knox Mobile Home Park

Camp Lejeune, North Carolina

Target Pick Table (EM-61 MK2- Channel 2)

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
1	2483734.428	361375.5696	19824.7239	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_1
2	2483786.509	361376.5134	1160.55136	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_2
3	2483740	361366.5	1078.90051	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_3
4	2483752	361362	1059.92053	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_4
5	2483746	361364	1028.86511	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_5
6	2483720.5	361296.5	974.266968	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_6
7	2483754	361388.5	881.67627	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_7
8	2483736.5	361359	871.221436	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_8
9	2483778.5	361340	611.692810	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_9
10	2483779.5	361373.5	500.377106	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_10
11	2483770.5	361323	449.315765	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_11
12	2483788.139	361364.8445	442.864503	1		J. Guillard	Q18	Q18_12

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
13	2483774.5	361306.5	399.308319	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_13
14	2483750	361338	309.895813	1		J. Guillard	Q18	Q18_14
15	2483784	361387.5	291.791168	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_15
16	2483786.509	361331.2106	196.739178	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_16
17	2483762	361303	190.068924	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_17
18	2483760.94	361392.3865	157.677592	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_18
19	2483725.504	361379.8596	146.687698	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_19
20	2483718.125	361367.6759	136.693091	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_20
21	2483762.913	361378.7442	133.789883	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_21
22	2483762.5	361315.5	125.110733	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_22
23	2483769.5	361296.5	123.107727	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_23
24	2483757.937	361334.9001	121.443724	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_24
25	2483689.468	361381.3182	117.643195	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_25
26	2483721.729	361387.9249	110.763571	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_26
27	2483718.5	361338	110.152008	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_27
28	2483732	361330.5	108.835144	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_28
29	2483765.745	361339.7049	105.075787	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_29

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
30	2483771	361344.5	104.831680	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_30
31	2483690	361353	102.016090	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_31
32	2483744.5	361324.5	99.9075928	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_32
33	2483779.13	361296.8904	95.8920513	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_33
34	2483703	361346	91.3811646	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_34
35	2483730.138	361295.775	81.2878395	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_35
36	2483758.5	361306	79.6265183	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_36
37	2483749	361306.5	79.1744537	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_37
38	2483743.5	361312	78.0574036	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_38
39	2483710.661	361351.6312	75.8132558	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_39
40	2483786.594	361295.8608	73.394407	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_40
41	2483780	361382.5	66.7882919	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_41
42	2483695.5	361395	63.457325	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_42
43	2483769.5	361303.5	56.9330788	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_43
44	2483771.5	361331	56.4269753	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_44
45	2483722.759	361363.4717	54.3809356	1		J. Guillard	Q18	Q18_45
46	2483750.5	361299.5	51.7515907	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_46

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
47	2483754.5	361298	51.4812317	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_47
48	2483778.5	361353	48.660141	1		J. Guillard	Q18	Q18_48
49	2483788	361345	48.3826103	1		J. Guillard	Q18	Q18_49
50	2483774	361351	46.8985710	1		J. Guillard	Q18	Q18_50
51	2483715.5	361391	45.8820992	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_51
52	2483755.535	361302.1242	44.3688558	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_52
53	2483756.736	361348.8856	44.1560051	1		J. Guillard	Q18	Q18_53
54	2483761	361369.5	43.6800613	1		J. Guillard	Q18	Q18_54
55	2483749	361349	43.3629837	1		J. Guillard	Q18	Q18_55
56	2483711.519	361334.1279	43.2561309	1		J. Guillard	Q18	Q18_56
57	2483787	361306.5	41.8754234	1		J. Guillard	Q18	Q18_57
58	2483691	361309.5	40.6113968	1		J. Guillard	Q18	Q18_58
59	2483784.5	361304.5	40.0272026	1		J. Guillard	Q18	Q18_59
60	2483743.5	361352.5	39.5460739	1		J. Guillard	Q18	Q18_60
61	2483763.5	361353.5	38.014843	1		J. Guillard	Q18	Q18_61
62	2483727	361321.5	37.0983963	1		J. Guillard	Q18	Q18_62
63	2483726.5	361327	36.8666115	1		J. Guillard	Q18	Q18_63
64	2483732	361316.5	36.6416779	1		J. Guillard	Q18	Q18_64
65	2483774.5	361311.5	36.6083984	1		J. Guillard	Q18	Q18_65
66	2483769.5	361316	35.3454781	1		J. Guillard	Q18	Q18_66

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
67	2483760.94	361373.4245	33.9858582	1		J. Guillard	Q18	Q18_67
68	2483779.216	361311.7339	33.5695106	1		J. Guillard	Q18	Q18_68
69	2483744	361300	31.0462933	1		J. Guillard	Q18	Q18_69
70	2483707	361337.5	28.2589340	1		J. Guillard	Q18	Q18_70
71	2483721.5	361352	28.2141666	1		J. Guillard	Q18	Q18_71
72	2483782.991	361336.0155	27.1772588	1		J. Guillard	Q18	Q18_72
73	2483690.5	361302	26.2969532	1		J. Guillard	Q18	Q18_73
74	2483691	361358.5	24.7129612	1		J. Guillard	Q18	Q18_74
75	2483776.5	361360.5	24.3895321	1		J. Guillard	Q18	Q18_75
76	2483736	361318	24.1214352	1		J. Guillard	Q18	Q18_76
77	2483784	361394.5	23.5897045	1		J. Guillard	Q18	Q18_77
78	2483732	361395	22.9917126	1		J. Guillard	Q18	Q18_78
79	2483782	361359.5	22.7978973	1		J. Guillard	Q18	Q18_79
80	2483724.389	361301.5236	22.4980178	1		J. Guillard	Q18	Q18_80
81	2483764.5	361327.5	22.1015720	1	Suspected Utility and/or Culture	J. Guillard	Q18	Q18_81
82	2483787.281	361317.8257	22.0978531	1		J. Guillard	Q18	Q18_82
83	2483730	361359	22.0427914	1		J. Guillard	Q18	Q18_83
84	2483718.383	361395.2179	20.9909662	1		J. Guillard	Q18	Q18_84
85	2483703	361296	20.6782188	1		J. Guillard	Q18	Q18_85
86	2483703.539	361302.0384	20.4617763	1		J. Guillard	Q18	Q18_86
87	2483739.919	361299.7218	19.776261	1		J. Guillard	Q18	Q18_87

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
88	2483700.88	361356.3502	18.6427987	1		J. Guillard	Q18	Q18_88
89	2483723	361305.5	18.4853363	1		J. Guillard	Q18	Q18_89
90	2483787.5	361355	18.4394531	1		J. Guillard	Q18	Q18_90
91	2483699.5	361311	18.0854073	1		J. Guillard	Q18	Q18_91
92	2483770	361383.5	17.5871658	1		J. Guillard	Q18	Q18_92
93	2483725.933	361395.2179	17.4357754	1		J. Guillard	Q18	Q18_93
94	2483695.5	361296.5	16.8487434	1		J. Guillard	Q18	Q18_94
95	2483713.5	361377	16.5368195	1		J. Guillard	Q18	Q18_95
96	2483770.807	361375.5696	16.0264609	1		J. Guillard	Q18	Q18_96
97	2483698.649	361300.2366	15.5328275	1		J. Guillard	Q18	Q18_97
98	2483785.5	361350	15.4972515	1		J. Guillard	Q18	Q18_98
99	2483770.121	361394.9605	15.4512101	1		J. Guillard	Q18	Q18_99
100	2483709.5	361300.5	14.9458046	1		J. Guillard	Q18	Q18_100
101	2483753.304	361328.2076	14.6992789	1		J. Guillard	Q18	Q18_101
102	2483769.5	361387.5	14.3915091	1		J. Guillard	Q18	Q18_102
103	2483711.261	361395.3037	14.3175517	1		J. Guillard	Q18	Q18_103
104	2483762.656	361348.9714	13.9578920	1		J. Guillard	Q18	Q18_104
105	2483717.439	361327.0922	13.5978382	1		J. Guillard	Q18	Q18_105
106	2483700	361339	12.4381151	1		J. Guillard	Q18	Q18_106
107	2483772.008	361355.2348	12.0260836	1		J. Guillard	Q18	Q18_107
108	2483776.213	361319.1986	11.9622632	1		J. Guillard	Q18	Q18_108

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
109	2483688.438	361321.172	11.4956602	1		J. Guillard	Q18	Q18_109
110	2483739.318	361354.6342	10.8820343	1		J. Guillard	Q18	Q18_110
111	2483765.916	361361.9273	10.8581188	1		J. Guillard	Q18	Q18_111
112	2483691.5	361341	10.349185	1		J. Guillard	Q18	Q18_112
113	2483763	361365	10.3485889	1		J. Guillard	Q18	Q18_113
114	2483769.5	361364.5	10.3177490	1		J. Guillard	Q18	Q18_114
115	2483705.5	361362	10.2021408	1		J. Guillard	Q18	Q18_115
116	2483772	361392	9.54138088	1		J. Guillard	Q18	Q18_116
117	2483700	361364	9.38195992	1		J. Guillard	Q18	Q18_117
118	2483714.5	361300	9.36599922	1		J. Guillard	Q18	Q18_118
119	2483778.958	361324.604	8.45689297	1		J. Guillard	Q18	Q18_119
120	2483692	361317	8.36366367	1		J. Guillard	Q18	Q18_120
121	2483737	361307.5	8.18806744	1		J. Guillard	Q18	Q18_121
122	2483720.5	361321.5	7.59911060	1		J. Guillard	Q18	Q18_122
123	2483784.5	361368	7.09535408	1		J. Guillard	Q18	Q18_123
124	2483697	361362	7.0074935	1		J. Guillard	Q18	Q18_124
125	2483695.5	361376.5	6.85028076	1		J. Guillard	Q18	Q18_125
126	2483784.878	361321.8584	6.16066953	1		J. Guillard	Q18	Q18_126
127	2483708.5	361327	5.73073244	1		J. Guillard	Q18	Q18_127
128	2483751.5	361376	5.36145639	1		J. Guillard	Q18	Q18_128
129	2483775.612	361395.3037	5.35169607	1		J. Guillard	Q18	Q18_129

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
130	2483707	361394	5.30156136	1		J. Guillard	Q18	Q18_130
131	2483705.684	361369.3061	5.29134464	1		J. Guillard	Q18	Q18_131
132	2483700.365	361384.6644	5.13860472	1		J. Guillard	Q18	Q18_132
133	2483710.146	361381.0608	4.91260544	1		J. Guillard	Q18	Q18_133
134	2483688.524	361315.7665	4.62484091	1		J. Guillard	Q18	Q18_134
135	2483706.542	361322.2016	4.42424659	1		J. Guillard	Q18	Q18_135
136	2483699	361333.5	4.27618218	1		J. Guillard	Q18	Q18_136
137	2483706.542	361386.0372	4.03634309	1		J. Guillard	Q18	Q18_137
138	2483698.391	361379.4306	4.01058986	1		J. Guillard	Q18	Q18_138
139	2483703.5	361390	3.82123876	1		J. Guillard	Q18	Q18_139
140	2483777.5	361328.9798	3.68588421	1		J. Guillard	Q18	Q18_140
141	2483723.5	361312	3.30909777	1		J. Guillard	Q18	Q18_141
142	2483688.353	361370.0783	3.29938090	1		J. Guillard	Q18	Q18_142
143	2483727	361341.5	3.13632703	1		J. Guillard	Q18	Q18_143
144	2483731	361348.5	3.08158684	1		J. Guillard	Q18	Q18_144

Grid Z12 Contour Map and Target List

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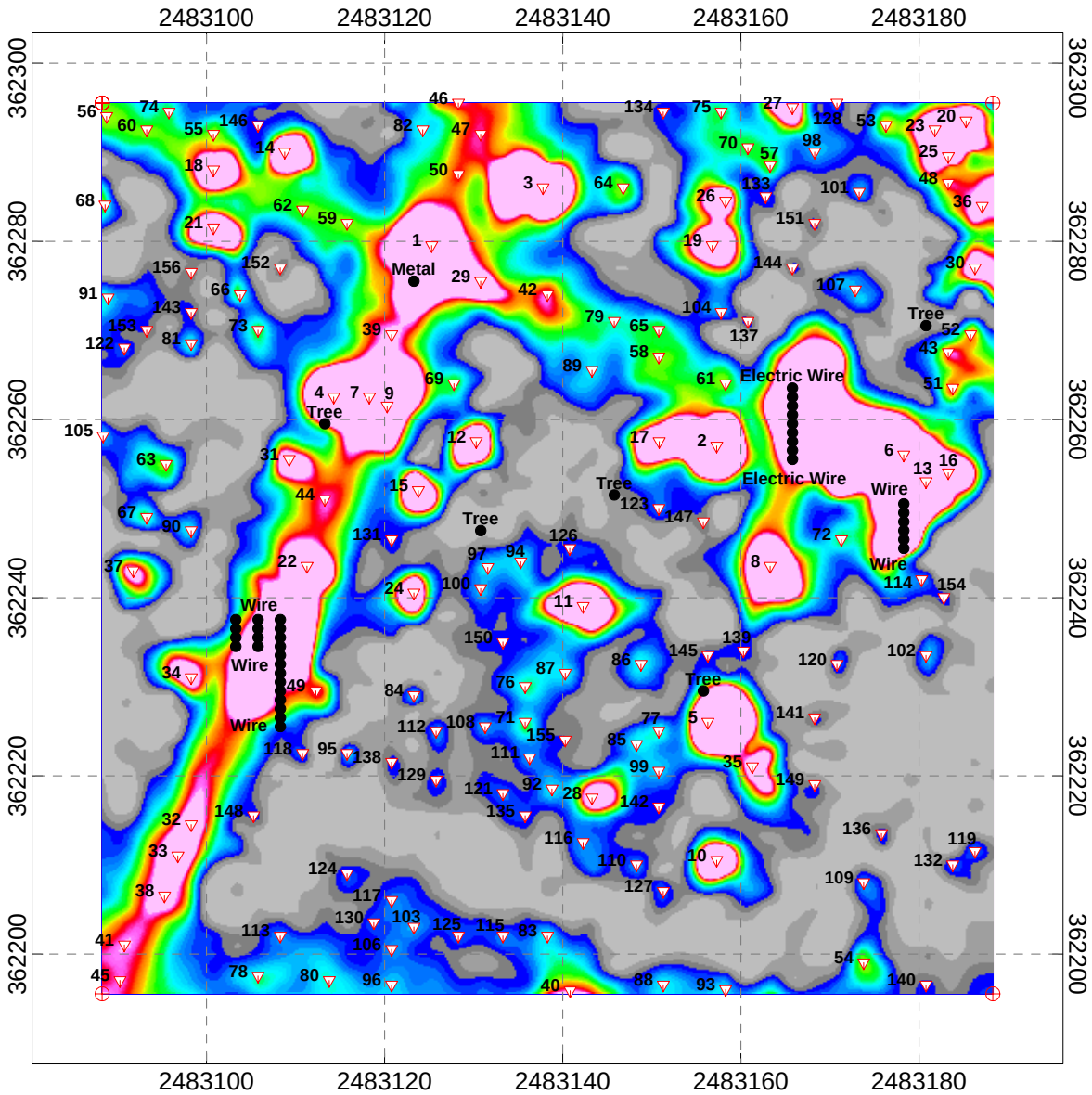
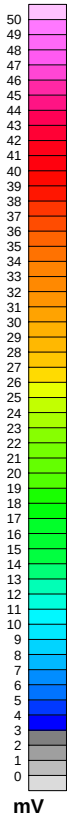
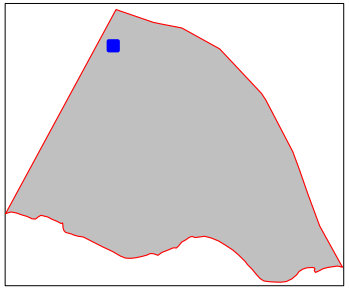






Legend

Area of Investigation

2 Selected Target
(See Target Pick List For Response and Location)

Pole Culture Feature
(Unmarked gaps due to trees)

Grid Corner

Scale 1:240

10 0 10 20

US survey foot

NAD83 / North Carolina CS83

Client: CH2M HILL

EM61 MK2 Bottom Coil - Channel 2
Grid Z12
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: January 10, 2006
Date of Map Creation: January 23, 2006

Map Approver: K. Lemley

Map File Name: Grid Z12.map

CH2M Hill

Grid Z12

Knox Mobile Home Park

Camp Lejeune, North Carolina

Target Pick Table (EM-61 MK2- Channel 2)

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
1	2483125.284	362279.535	3923.28931	1	Suspected Culture	J. Mabie	Z12	Z12_1
2	2483157.284	362257.035	2834.89551	1		J. Mabie	Z12	Z12_2
3	2483137.784	362286.035	2464.95776	1		J. Mabie	Z12	Z12_3
4	2483114.284	362262.535	1355.98853	1		J. Mabie	Z12	Z12_4
5	2483156.284	362226.035	1279.13513	1		J. Mabie	Z12	Z12_5
6	2483178.284	362256.035	820.646179	1	Suspected Culture	J. Mabie	Z12	Z12_6
7	2483118.284	362262.535	763.034241	1		J. Mabie	Z12	Z12_7
8	2483163.284	362243.535	629.693909	1		J. Mabie	Z12	Z12_8
9	2483120.284	362261.535	524.392517	1		J. Mabie	Z12	Z12_9
10	2483157.284	362210.535	474.779266	1		J. Mabie	Z12	Z12_10
11	2483142.284	362239.035	379.27417	1		J. Mabie	Z12	Z12_11
12	2483130.284	362257.535	375.141327	1		J. Mabie	Z12	Z12_12
13	2483180.784	362253.035	334.314453	1	Suspected Culture	J. Mabie	Z12	Z12_13
14	2483108.784	362290.035	331.78653	1		J. Mabie	Z12	Z12_14
15	2483123.784	362252.035	330.617065	1		J. Mabie	Z12	Z12_15

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
16	2483183.284	362254.035	319.017456	1	Suspected Culture	J. Mabie	Z12	Z12_16
17	2483150.822	362257.5428	259.921962	1		J. Mabie	Z12	Z12_17
18	2483100.784	362288.035	247.060028	1		J. Mabie	Z12	Z12_18
19	2483156.784	362279.535	245.950211	1		J. Mabie	Z12	Z12_19
20	2483185.284	362293.535	229.805817	1		J. Mabie	Z12	Z12_20
21	2483100.784	362281.535	229.004852	1		J. Mabie	Z12	Z12_21
22	2483111.284	362243.535	227.295578	1	Suspected Culture	J. Mabie	Z12	Z12_22
23	2483181.784	362292.535	211.072846	1		J. Mabie	Z12	Z12_23
24	2483123.284	362240.535	201.796112	1		J. Mabie	Z12	Z12_24
25	2483183.284	362289.535	194.901611	1		J. Mabie	Z12	Z12_25
26	2483158.284	362284.535	165.173477	1		J. Mabie	Z12	Z12_26
27	2483165.784	362295.035	154.805862	1		J. Mabie	Z12	Z12_27
28	2483143.284	362217.535	150.095947	1		J. Mabie	Z12	Z12_28
29	2483130.784	362275.535	139.602264	1	Suspected Culture	J. Mabie	Z12	Z12_29
30	2483186.284	362277.035	118.833664	1		J. Mabie	Z12	Z12_30
31	2483109.284	362255.535	93.6207504	1		J. Mabie	Z12	Z12_31
32	2483098.284	362214.535	91.8641281	1		J. Mabie	Z12	Z12_32
33	2483096.784	362211.035	88.1843262	1		J. Mabie	Z12	Z12_33
34	2483098.284	362231.035	81.3256455	1		J. Mabie	Z12	Z12_34
35	2483161.284	362221.035	73.6877441	1		J. Mabie	Z12	Z12_35
36	2483187.092	362283.9509	67.4701554	1		J. Mabie	Z12	Z12_36

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
37	2483091.784	362243.035	64.4172669	1		J. Mabie	Z12	Z12_37
38	2483095.284	362206.535	61.0344849	1		J. Mabie	Z12	Z12_38
39	2483120.784	362269.535	57.6709061	1		J. Mabie	Z12	Z12_39
40	2483140.831	362195.8915	54.6377905	1		J. Mabie	Z12	Z12_40
41	2483090.784	362201.035	52.6279488	1		J. Mabie	Z12	Z12_41
42	2483138.284	362274.035	50.0944405	1		J. Mabie	Z12	Z12_42
43	2483183.284	362267.535	49.3531952	1		J. Mabie	Z12	Z12_43
44	2483113.284	362251.035	47.6600075	1		J. Mabie	Z12	Z12_44
45	2483090.284	362197.035	47.4637489	1		J. Mabie	Z12	Z12_45
46	2483128.284	362295.535	47.024292	1		J. Mabie	Z12	Z12_46
47	2483130.784	362292.035	46.2722282	1		J. Mabie	Z12	Z12_47
48	2483183.284	362286.535	45.89114	1		J. Mabie	Z12	Z12_48
49	2483112.284	362229.535	43.7048149	1		J. Mabie	Z12	Z12_49
50	2483128.284	362287.535	41.4989395	1		J. Mabie	Z12	Z12_50
51	2483183.784	362263.535	40.1211205	1		J. Mabie	Z12	Z12_51
52	2483185.784	362269.535	39.1238785	1		J. Mabie	Z12	Z12_52
53	2483176.284	362293.035	29.596983	1		J. Mabie	Z12	Z12_53
54	2483173.784	362199.035	25.3781357	1		J. Mabie	Z12	Z12_54
55	2483100.784	362292.035	24.7010117	1		J. Mabie	Z12	Z12_55
56	2483088.784	362294.035	23.9296475	1		J. Mabie	Z12	Z12_56
57	2483163.284	362288.535	23.6228161	1		J. Mabie	Z12	Z12_57

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
58	2483150.784	362267.035	23.4804707	1		J. Mabie	Z12	Z12_58
59	2483115.784	362282.035	23.2906265	1		J. Mabie	Z12	Z12_59
60	2483093.284	362292.535	23.2453194	1		J. Mabie	Z12	Z12_60
61	2483158.284	362264.035	22.8564892	1		J. Mabie	Z12	Z12_61
62	2483110.784	362283.535	22.2157192	1		J. Mabie	Z12	Z12_62
63	2483095.452	362254.9967	20.7896990	1		J. Mabie	Z12	Z12_63
64	2483146.784	362286.035	20.6971283	1		J. Mabie	Z12	Z12_64
65	2483150.784	362270.035	17.6760273	1		J. Mabie	Z12	Z12_65
66	2483103.784	362274.035	17.5513439	1		J. Mabie	Z12	Z12_66
67	2483093.284	362249.035	17.327528	1		J. Mabie	Z12	Z12_67
68	2483088.603	362284.1107	16.7989242	1		J. Mabie	Z12	Z12_68
69	2483127.784	362264.035	16.4404354	1		J. Mabie	Z12	Z12_69
70	2483160.784	362290.535	16.4357739	1		J. Mabie	Z12	Z12_70
71	2483135.784	362226.035	16.296772	1		J. Mabie	Z12	Z12_71
72	2483171.284	362246.535	15.9499044	1		J. Mabie	Z12	Z12_72
73	2483105.784	362270.035	15.847868	1		J. Mabie	Z12	Z12_73
74	2483095.784	362294.535	15.5959129	1		J. Mabie	Z12	Z12_74
75	2483157.784	362294.535	15.1238785	1		J. Mabie	Z12	Z12_75
76	2483135.784	362230.035	14.9106960	1		J. Mabie	Z12	Z12_76
77	2483150.784	362225.035	13.7792959	1		J. Mabie	Z12	Z12_77
78	2483105.784	362197.535	13.6984119	1		J. Mabie	Z12	Z12_78

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
79	2483145.784	362271.035	13.1317606	1		J. Mabie	Z12	Z12_79
80	2483113.784	362197.035	11.8882475	1		J. Mabie	Z12	Z12_80
81	2483098.284	362268.535	11.3807201	1		J. Mabie	Z12	Z12_81
82	2483124.284	362292.535	11.3108730	1		J. Mabie	Z12	Z12_82
83	2483138.284	362202.035	11.1662712	1		J. Mabie	Z12	Z12_83
84	2483123.284	362229.035	10.9023275	1		J. Mabie	Z12	Z12_84
85	2483148.284	362223.535	10.8567772	1		J. Mabie	Z12	Z12_85
86	2483148.784	362232.535	10.6328535	1		J. Mabie	Z12	Z12_86
87	2483140.284	362231.535	10.3355045	1		J. Mabie	Z12	Z12_87
88	2483151.284	362196.535	10.1471834	1		J. Mabie	Z12	Z12_88
89	2483143.284	362265.535	10.0182371	1		J. Mabie	Z12	Z12_89
90	2483098.284	362247.535	9.98025036	1		J. Mabie	Z12	Z12_90
91	2483088.944	362273.6652	9.9275329	1		J. Mabie	Z12	Z12_91
92	2483138.784	362218.535	9.84777355	1		J. Mabie	Z12	Z12_92
93	2483158.284	362196.035	9.61592293	1		J. Mabie	Z12	Z12_93
94	2483135.284	362244.035	9.38174534	1		J. Mabie	Z12	Z12_94
95	2483115.784	362222.535	9.33920384	1		J. Mabie	Z12	Z12_95
96	2483120.784	362196.535	9.28195763	1		J. Mabie	Z12	Z12_96
97	2483131.576	362243.4055	8.85357325	1		J. Mabie	Z12	Z12_97
98	2483168.284	362290.035	8.70954418	1		J. Mabie	Z12	Z12_98
99	2483150.784	362220.535	8.64134789	1		J. Mabie	Z12	Z12_99

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
100	2483130.784	362241.035	8.58754444	1		J. Mabie	Z12	Z12_100
101	2483173.284	362285.535	8.32836056	1		J. Mabie	Z12	Z12_101
102	2483180.784	362233.535	8.06359768	1		J. Mabie	Z12	Z12_102
103	2483123.284	362203.035	8.02123451	1		J. Mabie	Z12	Z12_103
104	2483157.784	362272.035	7.77124596	1		J. Mabie	Z12	Z12_104
105	2483088.399	362258.169	7.75782579	1		J. Mabie	Z12	Z12_105
106	2483120.784	362200.535	7.49966669	1		J. Mabie	Z12	Z12_106
107	2483172.849	362274.5735	7.31265571	1		J. Mabie	Z12	Z12_107
108	2483131.284	362225.535	7.29349566	1		J. Mabie	Z12	Z12_108
109	2483173.784	362208.035	7.00281334	1		J. Mabie	Z12	Z12_109
110	2483148.284	362210.035	6.9985137	1		J. Mabie	Z12	Z12_110
111	2483136.284	362222.035	6.9357481	1		J. Mabie	Z12	Z12_111
112	2483125.784	362225.035	6.78907585	1		J. Mabie	Z12	Z12_112
113	2483108.284	362202.035	6.60853434	1		J. Mabie	Z12	Z12_113
114	2483180.284	362242.035	6.49036551	1		J. Mabie	Z12	Z12_114
115	2483133.284	362202.035	6.46729803	1		J. Mabie	Z12	Z12_115
116	2483142.284	362212.535	6.42697620	1		J. Mabie	Z12	Z12_116
117	2483120.784	362206.035	6.37656975	1		J. Mabie	Z12	Z12_117
118	2483110.784	362222.535	6.24431801	1		J. Mabie	Z12	Z12_118
119	2483186.284	362211.535	6.06743813	1		J. Mabie	Z12	Z12_119
120	2483170.784	362232.535	5.7646246	1		J. Mabie	Z12	Z12_120

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
121	2483133.284	362218.035	5.73929501	1		J. Mabie	Z12	Z12_121
122	2483090.784	362268.035	5.64346647	1		J. Mabie	Z12	Z12_122
123	2483150.784	362250.035	5.60728741	1		J. Mabie	Z12	Z12_123
124	2483115.784	362209.035	5.25865412	1		J. Mabie	Z12	Z12_124
125	2483128.284	362202.035	5.24931955	1		J. Mabie	Z12	Z12_125
126	2483140.784	362245.535	5.13003683	1		J. Mabie	Z12	Z12_126
127	2483151.284	362207.035	5.11131334	1		J. Mabie	Z12	Z12_127
128	2483170.784	362295.535	5.01790476	1		J. Mabie	Z12	Z12_128
129	2483125.784	362219.535	5.00387955	1		J. Mabie	Z12	Z12_129
130	2483118.784	362203.535	4.96274614	1		J. Mabie	Z12	Z12_130
131	2483120.784	362246.535	4.91399336	1		J. Mabie	Z12	Z12_131
132	2483183.784	362210.035	4.73768854	1		J. Mabie	Z12	Z12_132
133	2483162.784	362285.035	4.54036808	1		J. Mabie	Z12	Z12_133
134	2483151.284	362294.535	4.51081133	1		J. Mabie	Z12	Z12_134
135	2483135.784	362215.535	4.4961648	1		J. Mabie	Z12	Z12_135
136	2483175.784	362213.535	4.39569855	1		J. Mabie	Z12	Z12_136
137	2483160.784	362271.035	4.33911800	1		J. Mabie	Z12	Z12_137
138	2483120.784	362221.535	4.27874327	1		J. Mabie	Z12	Z12_138
139	2483160.284	362234.035	4.15404558	1		J. Mabie	Z12	Z12_139
140	2483180.784	362196.535	4.09676981	1		J. Mabie	Z12	Z12_140
141	2483168.284	362226.535	4.01029873	1		J. Mabie	Z12	Z12_141

Target_ID	X_SP	Y_SP	Grid_value	Mask	Comments	Responsible	Grid_ID	Unique_ID
142	2483150.784	362216.535	3.95320725	1		J. Mabie	Z12	Z12_142
143	2483098.284	362272.035	3.87328434	1		J. Mabie	Z12	Z12_143
144	2483165.784	362277.035	3.86967039	1		J. Mabie	Z12	Z12_144
145	2483156.284	362233.535	3.82131219	1		J. Mabie	Z12	Z12_145
146	2483105.784	362293.035	3.72671962	1		J. Mabie	Z12	Z12_146
147	2483155.784	362248.535	3.57527828	1		J. Mabie	Z12	Z12_147
148	2483105.284	362215.535	3.56712318	1		J. Mabie	Z12	Z12_148
149	2483168.284	362219.035	3.54430032	1		J. Mabie	Z12	Z12_149
150	2483133.284	362235.035	3.51957965	1		J. Mabie	Z12	Z12_150
151	2483168.284	362282.035	3.48845625	1		J. Mabie	Z12	Z12_151
152	2483108.284	362277.035	3.34714007	1		J. Mabie	Z12	Z12_152
153	2483093.284	362270.035	3.33162713	1		J. Mabie	Z12	Z12_153
154	2483182.784	362240.035	3.3191011	1		J. Mabie	Z12	Z12_154
155	2483140.284	362224.035	3.07925034	1		J. Mabie	Z12	Z12_155
156	2483098.284	362276.535	3.07339072	1		J. Mabie	Z12	Z12_156

APPENDIX B

Example EM61 Data QC Tests

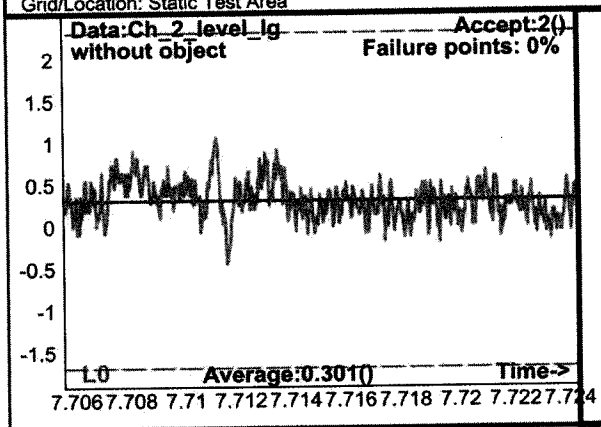
Static Test Profiles – Hand Towed

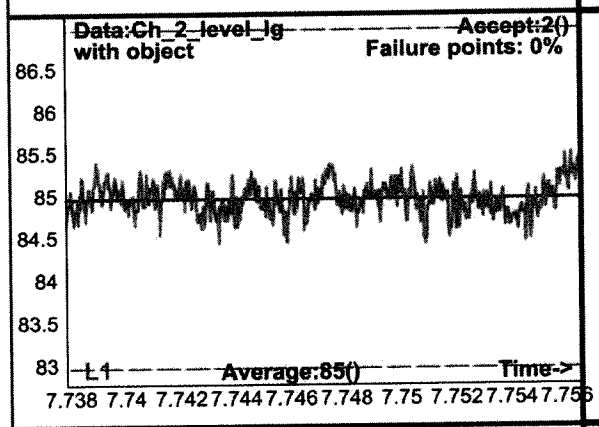
Static Calibration Test

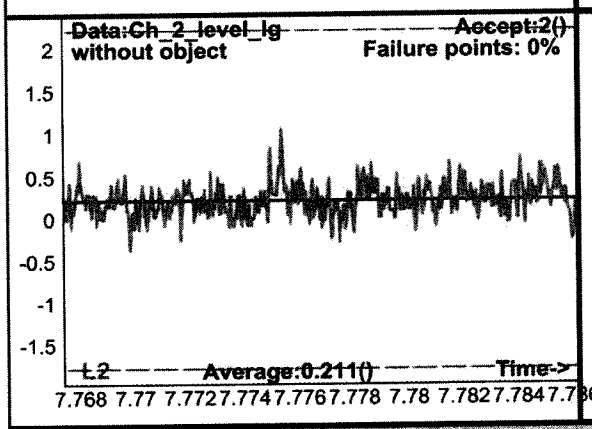
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test
Operator: Team B
Date: 2006/02/20







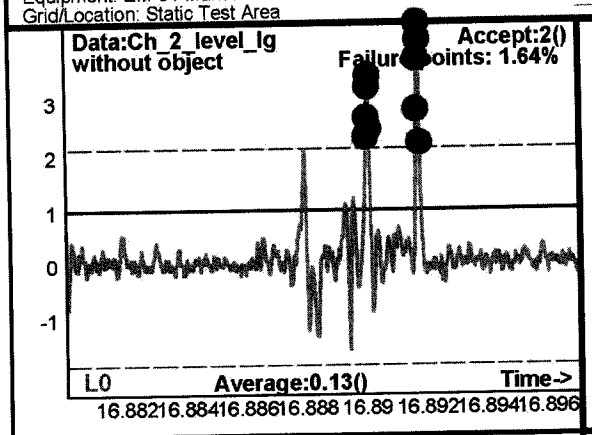
Database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\Knox Mobile Home Park\Geosoft\QC Data\Single QC Data\220AMQCB.g
Line Name: L0 L1 L2

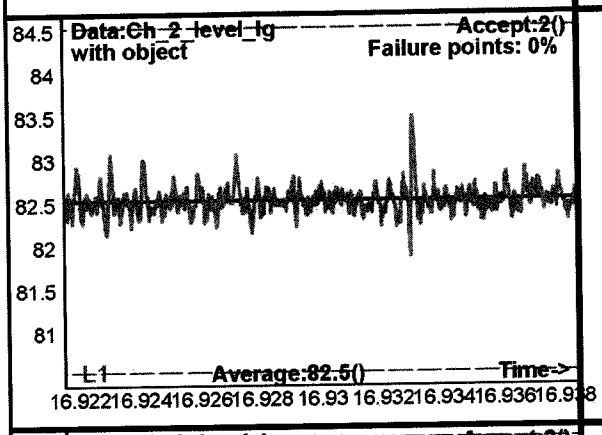
Static Calibration Test

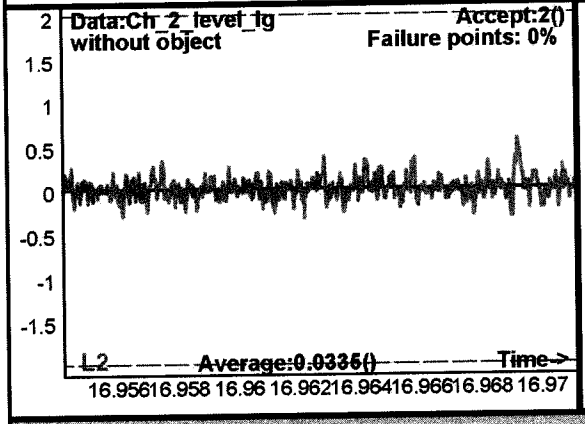
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

PM test
Operator: Team B
Date: 2006/01/11







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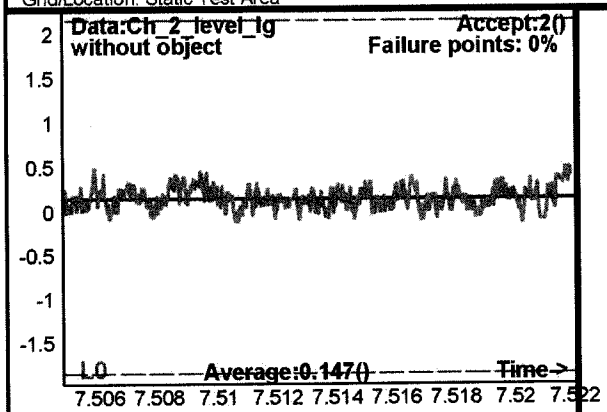
Line Name: L0 L1 L2

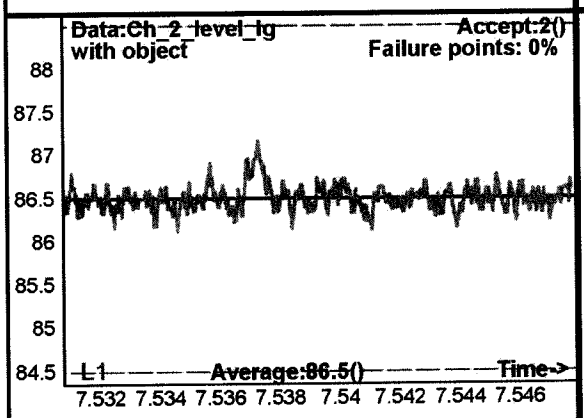
Static Calibration Test

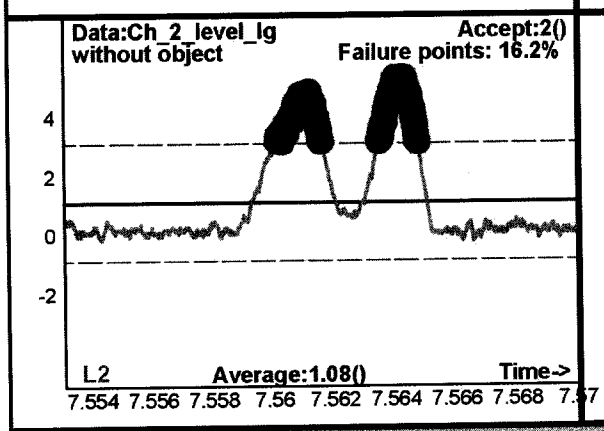
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test
Operator: Team B
Date: 2006/01/10







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Line Name: L0 L1 L2

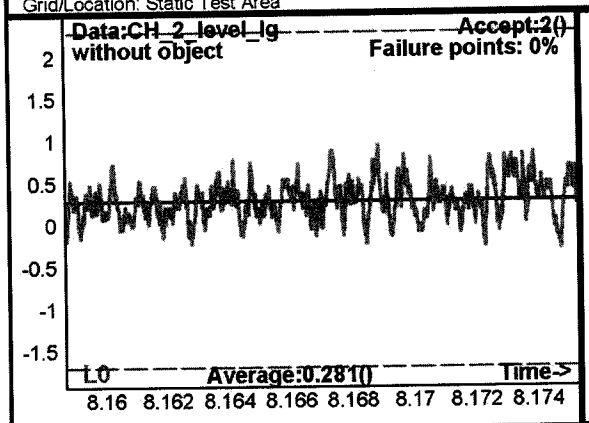
Static Test Profiles – Towed Array

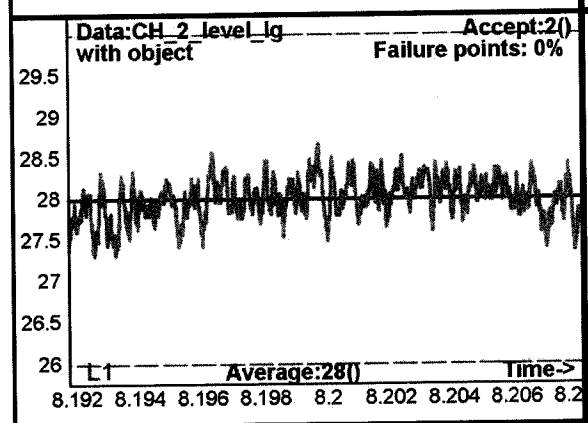
Static Calibration Test

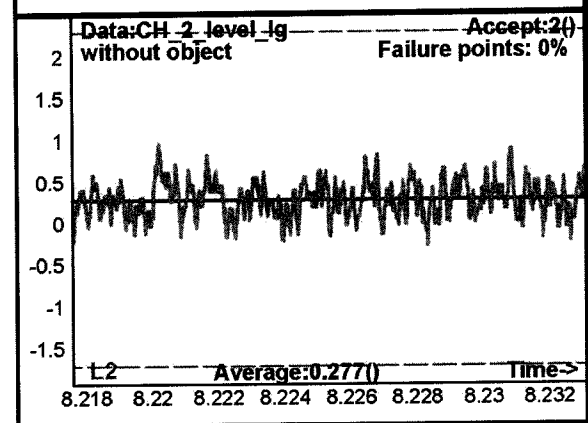
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test Coil 1
Operator: Team C (Towed Array)
Date: 2005/12/15







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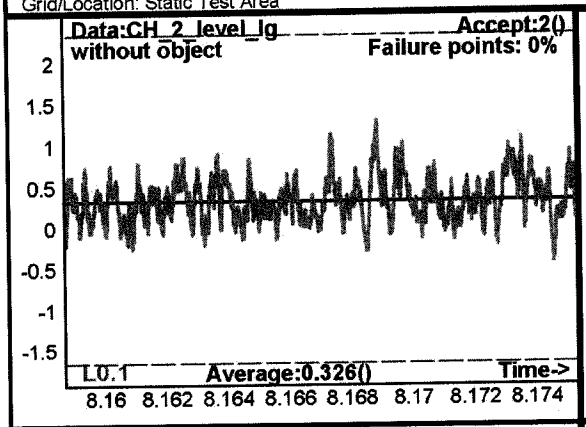
Line Name: L0 L1 L2

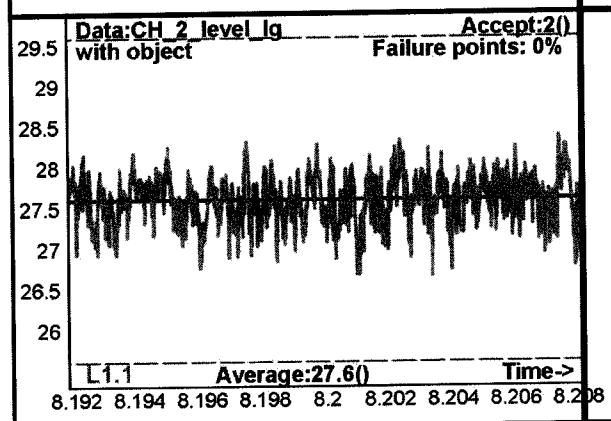
Static Calibration Test

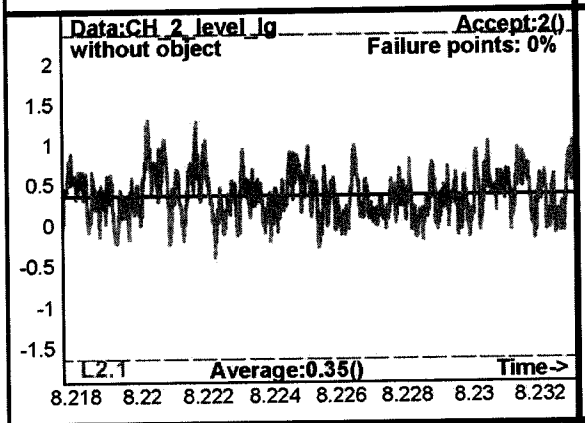
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test Coil 2
Operator: Team C (Towed Array)
Date: 2005/12/15





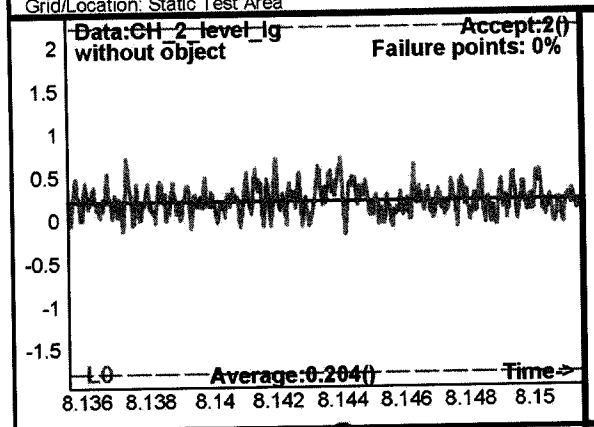


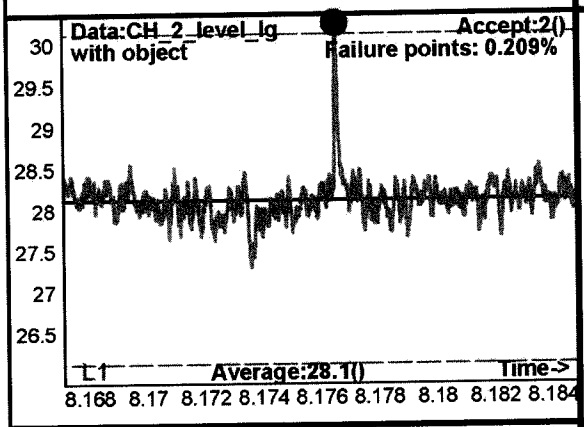
Static Calibration Test

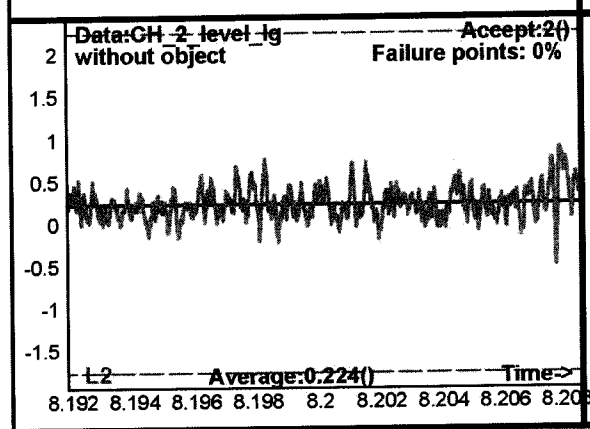
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test Coil 1
Operator: Team C (Towed Array)
Date: 2005/12/13







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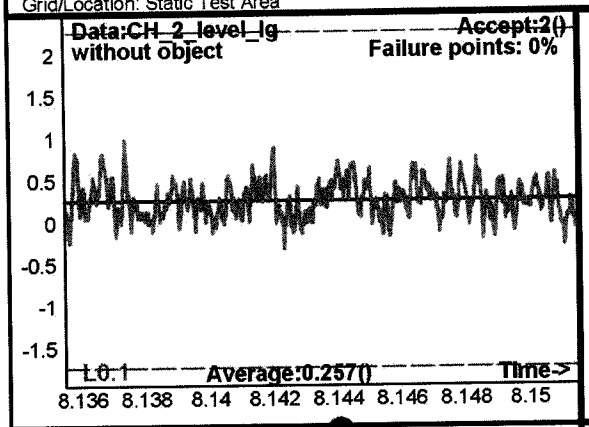
Line Name: L0 L1 L2

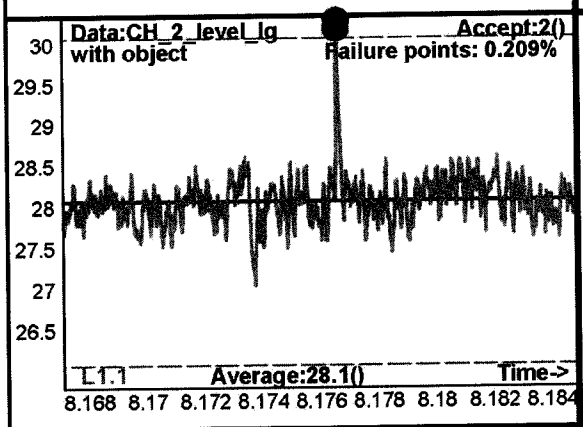
Static Calibration Test

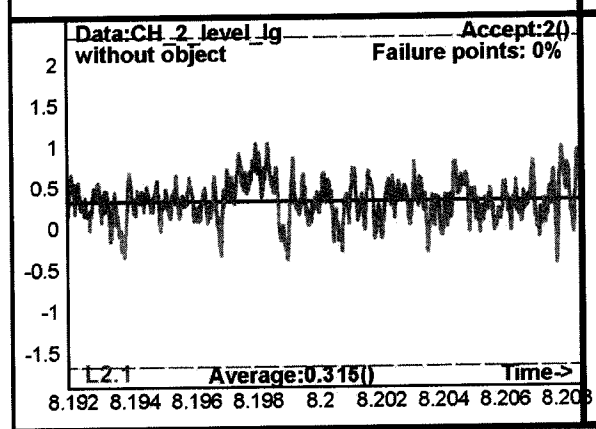
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test Coil 2
Operator: Team C (Towed Array)
Date: 2005/12/13







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Line Name: L0.1 L1.1 L2.1

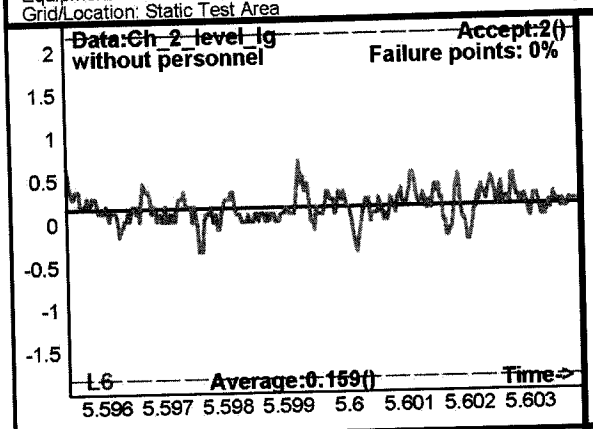
Personnel Test Profiles – Hand Towed

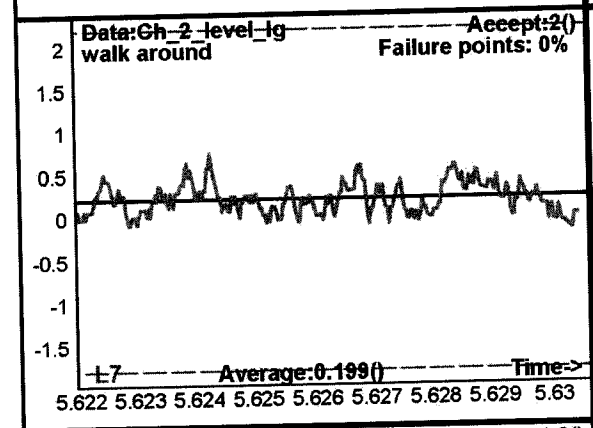
Personnel Test

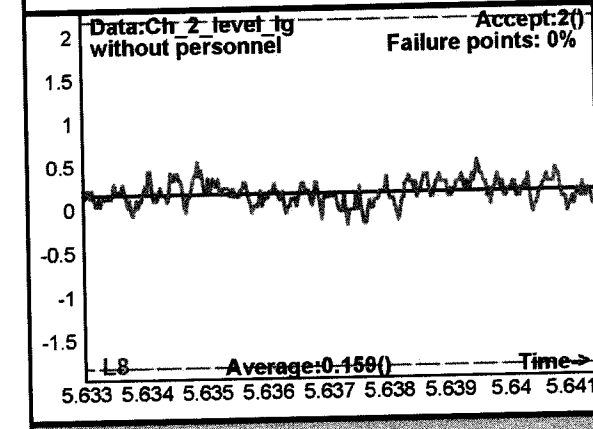
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test
Operator: Team B
Date: 2006/01/24







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Line Name: L6 L7 L8

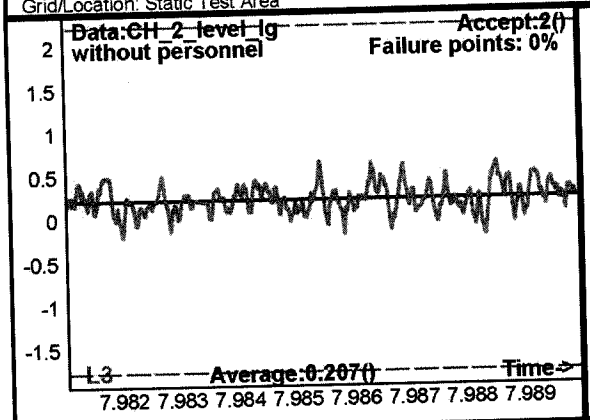
Personnel Test Profiles – Towed Array

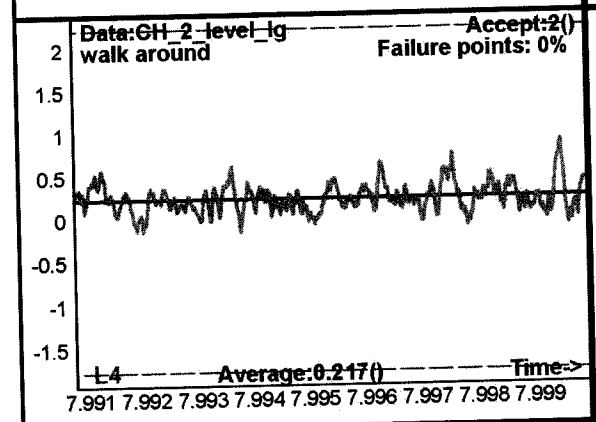
Personnel Test

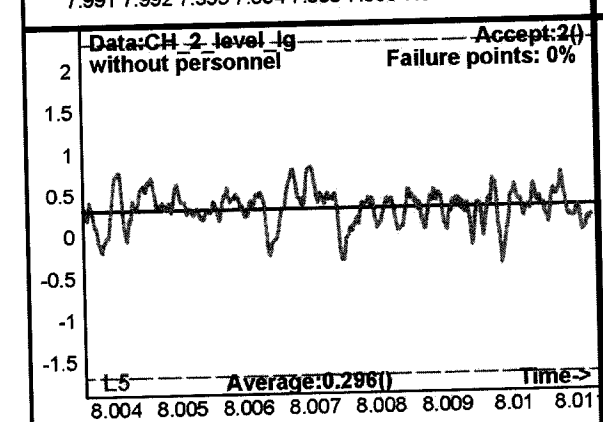
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test Coil 1
Operator: Team C (Towed Array)
Date: 2005/12/20







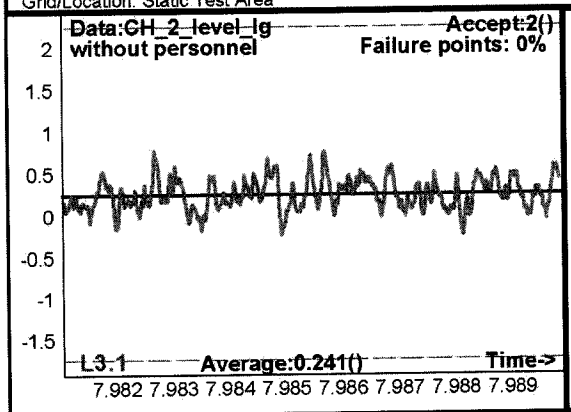
Database: q:\virginia office\ch2m hill\camp lejeune\knox mobile home park\geosoft\qc towed array\1220amqc\1220AMQC_Processed.gdb
Line Name: L3 L4 L5

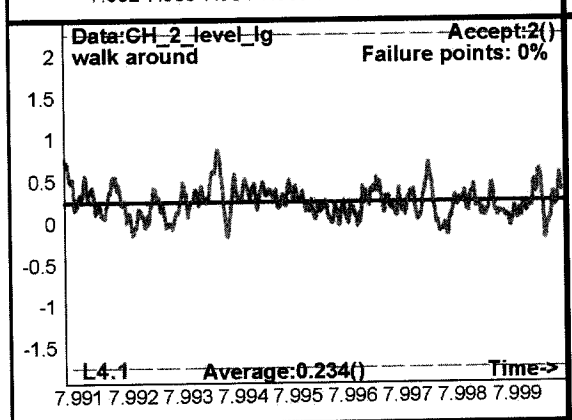
Personnel Test

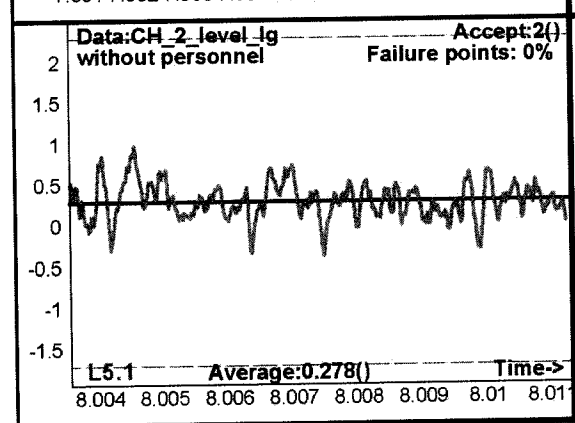
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test Coil 2
Operator: Team C (Towed Array)
Date: 2005/12/20







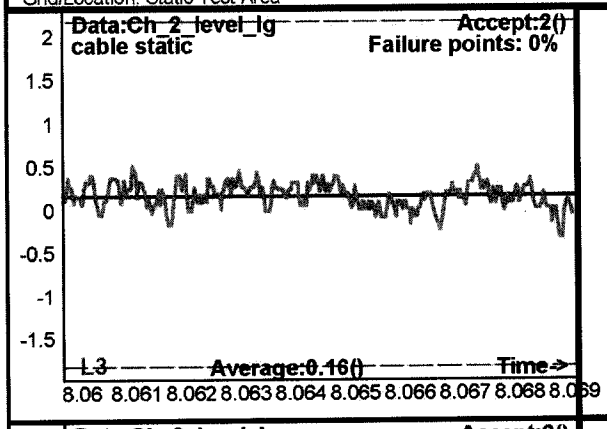
Cable Shake Test Profiles – Hand Towed

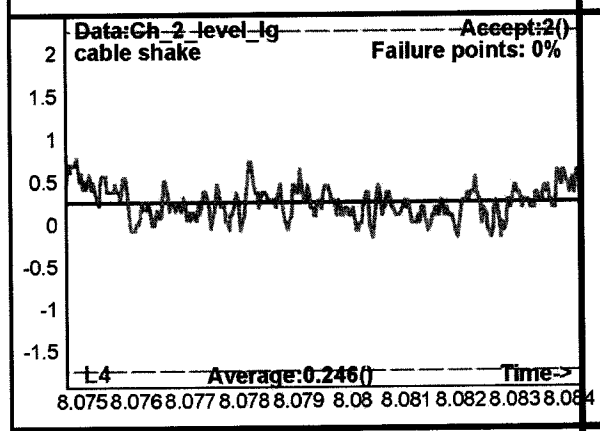
Cable Shake Test

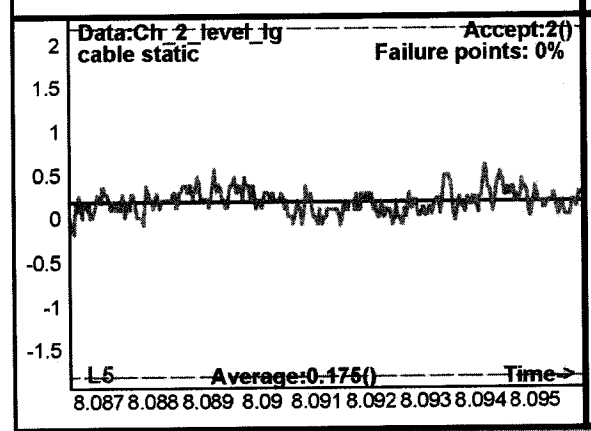
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test
Operator: Team A
Date: 2006/01/05







Database: q:\virginia office\ch2m hill\camp lejeune\knox mobile home park\geosoft\qc data\single qc data\105AMQCA.gdb
Line Name: L3 L4 L5

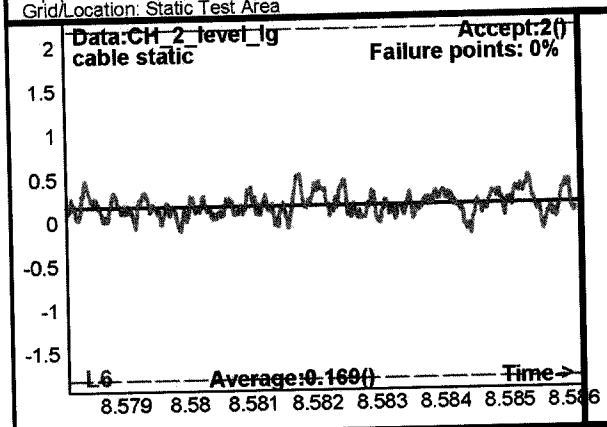
Cable Shake Test Profiles – Towed Array

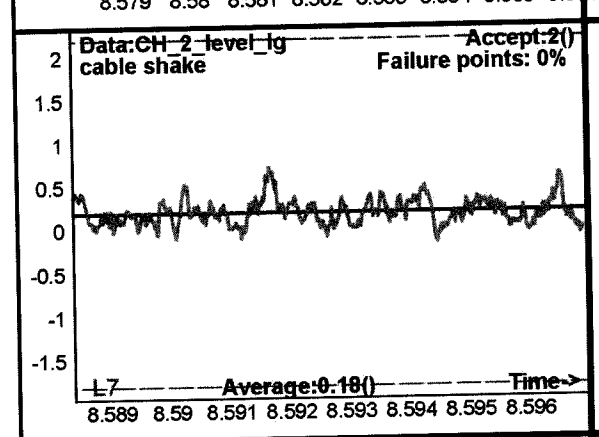
Cable Shake Test

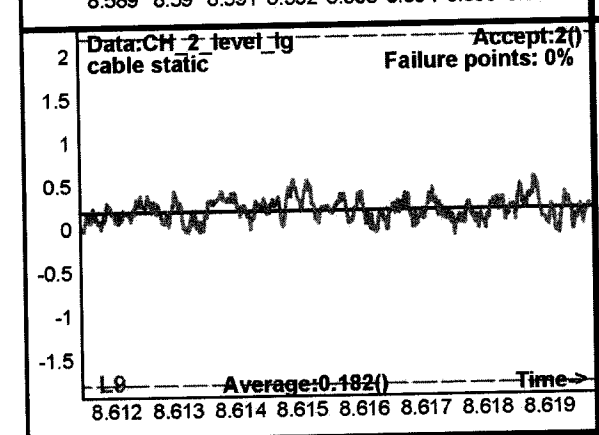
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test Coil 1
Operator: Team C (Towed Array)
Date: 2005/12/12







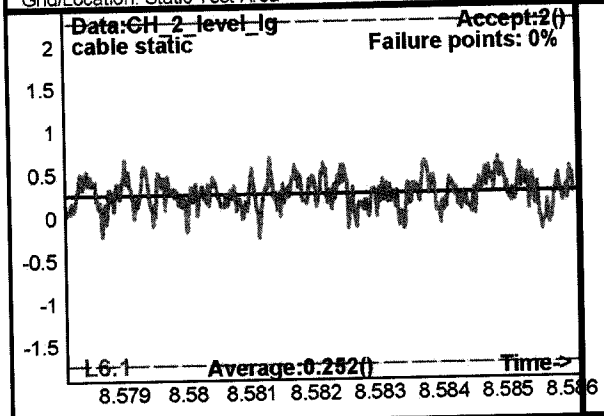
Database: q:\virginia office\ch2m hill\camp lejeune\knox mobile home park\geosoft\1212amqc\1212AMQC.gdb
Line Name: L6 L7 L9

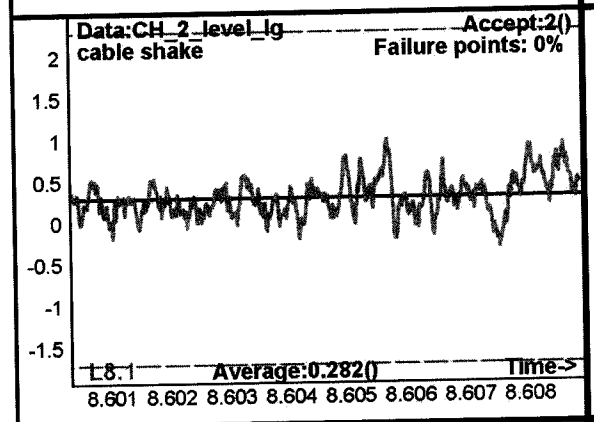
Cable Shake Test

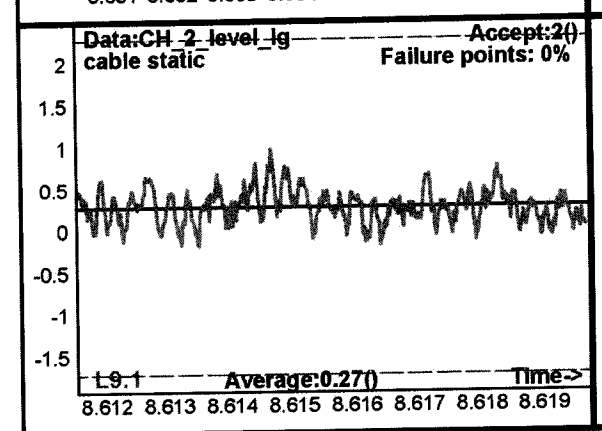
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Static Test Area

Instrument Threshold: 20%
● Outside range
—— Acceptable limits

AM test Coil 2
Operator: Team C (Towed Array)
Date: 2005/12/12







Database: q:\virginia office\ch2m hill\camp lejeune\knox mobile home park\geosoft\1212amqc\1212AMQC.gdb
Line Name: L6.1 L8.1 L9.1

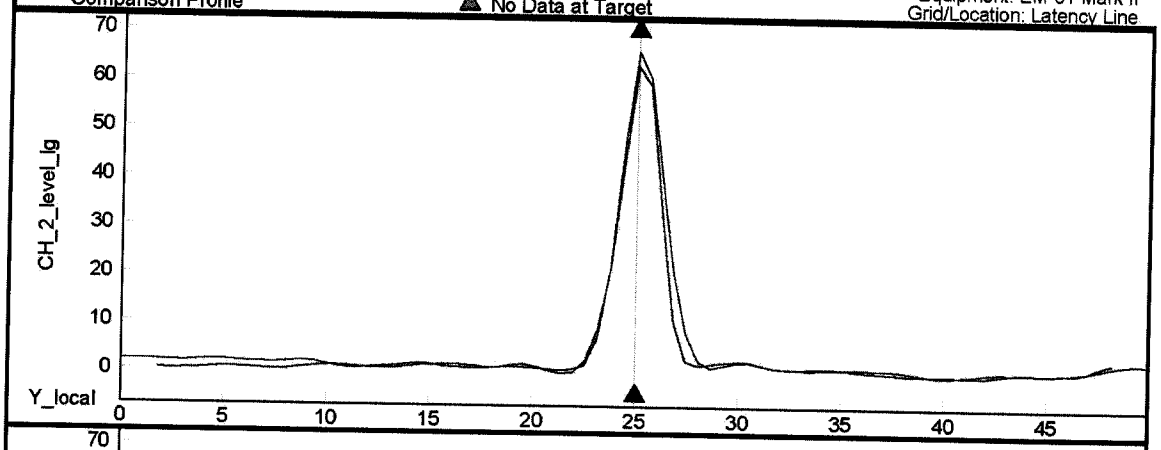
Latency Test Profiles – Hand Towed

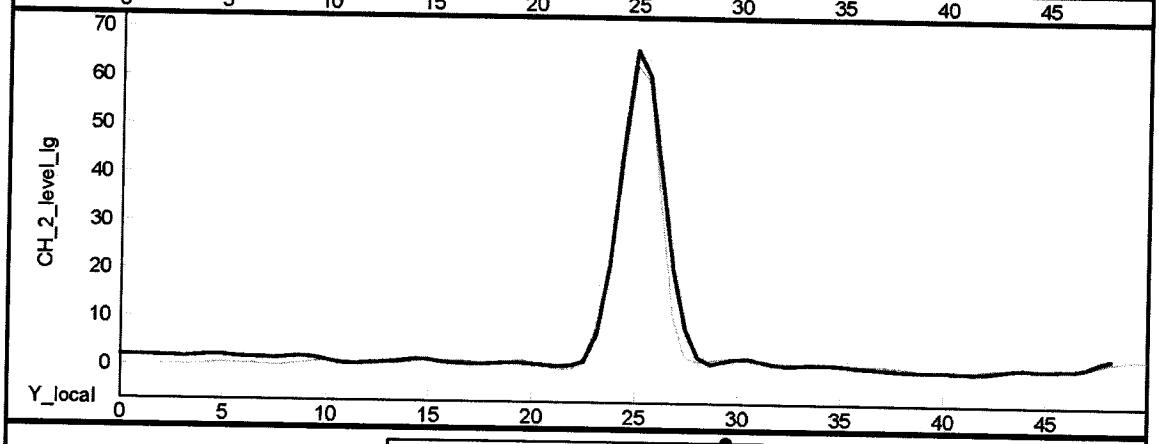
PM Latency Test

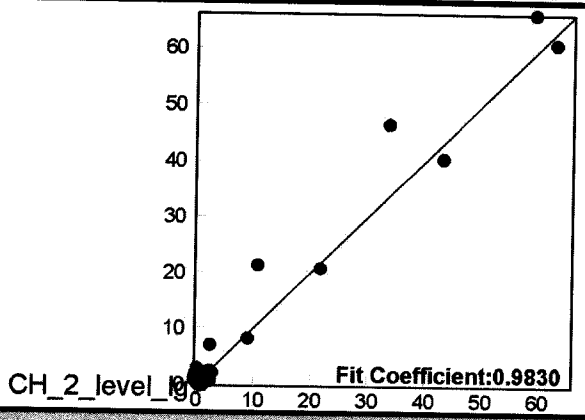
Previous Profiles
Reference Profile
Comparison Profile

Top:First/Bottom:Second Profile
Target Value <= Tolerance
Target Value > Tolerance
No Data at Target

Peak Tolerance(Value): 20(%)
Operator: Team B
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Latency Line







Database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\Knox Mobile Home Park\Geosoft\QC Data\Single QC Data\Latency Lines\123LPMB.gdb

Reference Date: 2006/01/23(L1)
Comparison Date: 2006/01/23(L0)

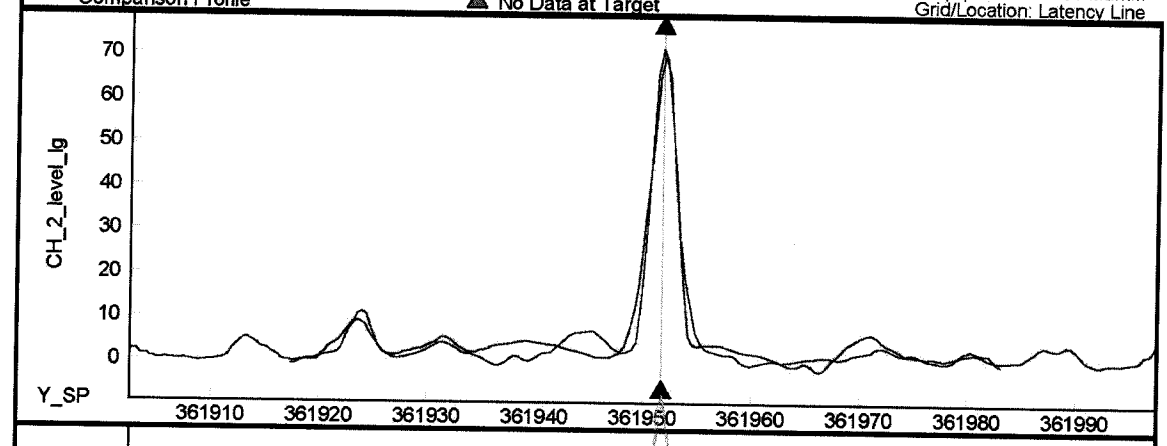
Latency Test Profiles – Towed Array

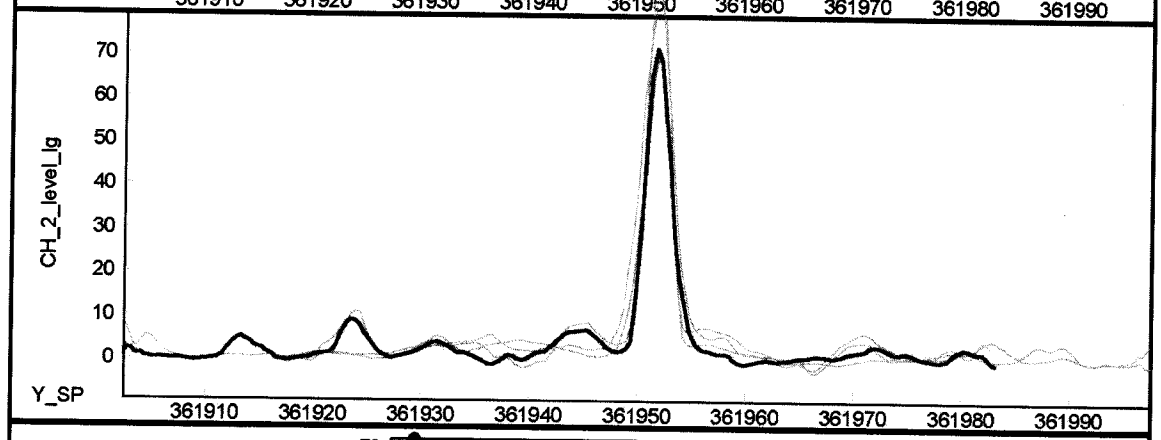
Latency Test - East Line

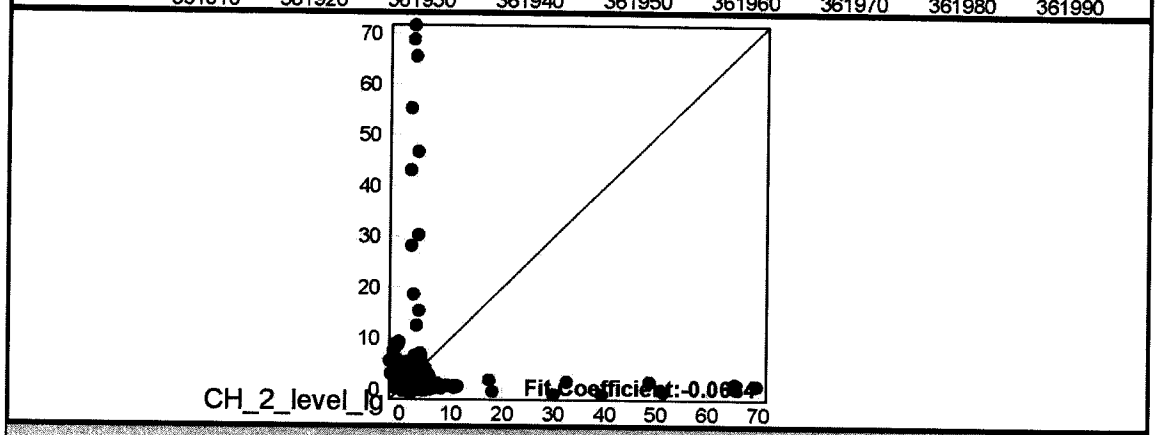
Previous Profiles
Reference Profile
Comparison Profile

Top:First/Bottom:Second Profile
Target Value <= Tolerance
Target Value > Tolerance
No Data at Target

Peak Tolerance(Value): 20(%)
Operator: Team C (Towed Array)
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Latency Line







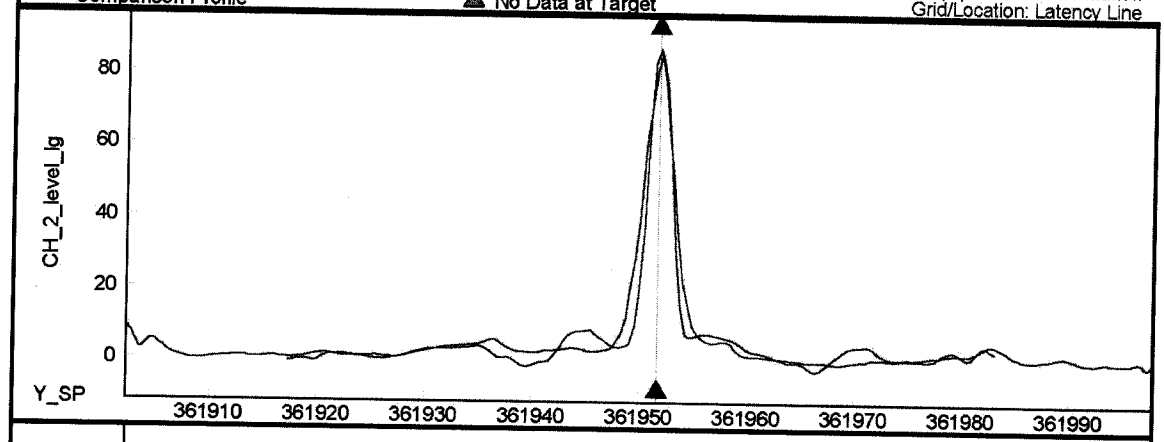
Reference Date: 2006/12/12(L11)
Database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\Knox Mobile Home Park\Geos[illegible]

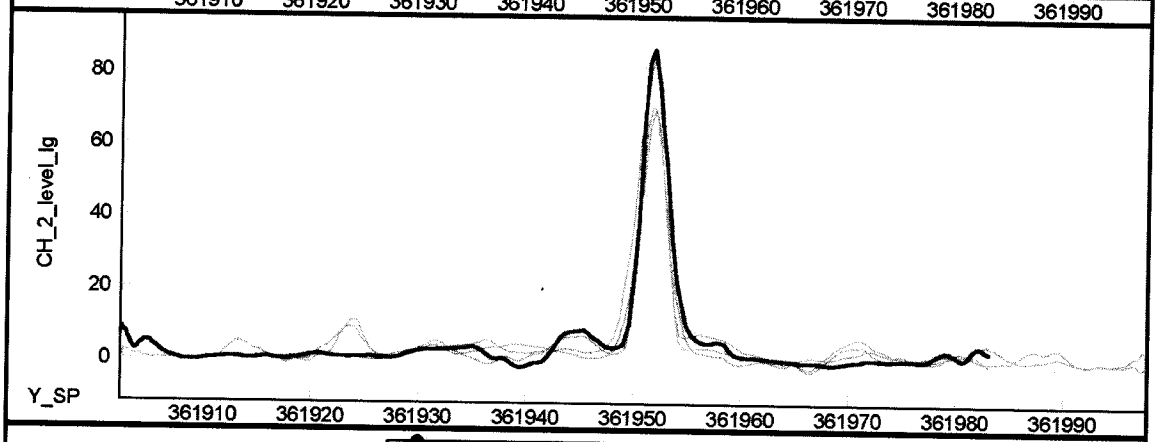
Latency Test - West Line

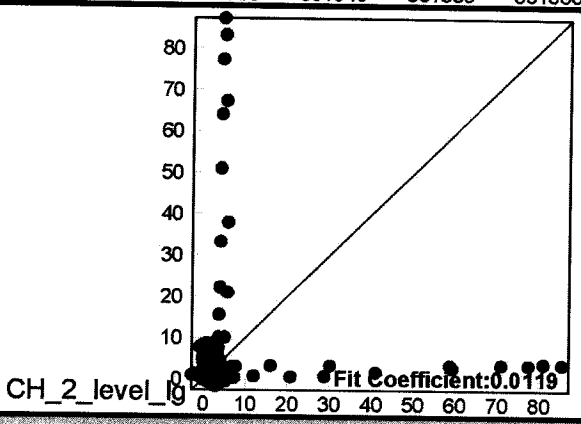
Previous Profiles
Reference Profile
Comparison Profile

Top:First/Bottom:Second Profile
Target Value <= Tolerance
Target Value > Tolerance
No Data at Target

Peak Tolerance(Value): 20(%)
Operator: Team C (Towed Array)
Project: Knox Mobile Home Park
Equipment: EM-61 Mark II
Grid/Location: Latency Line





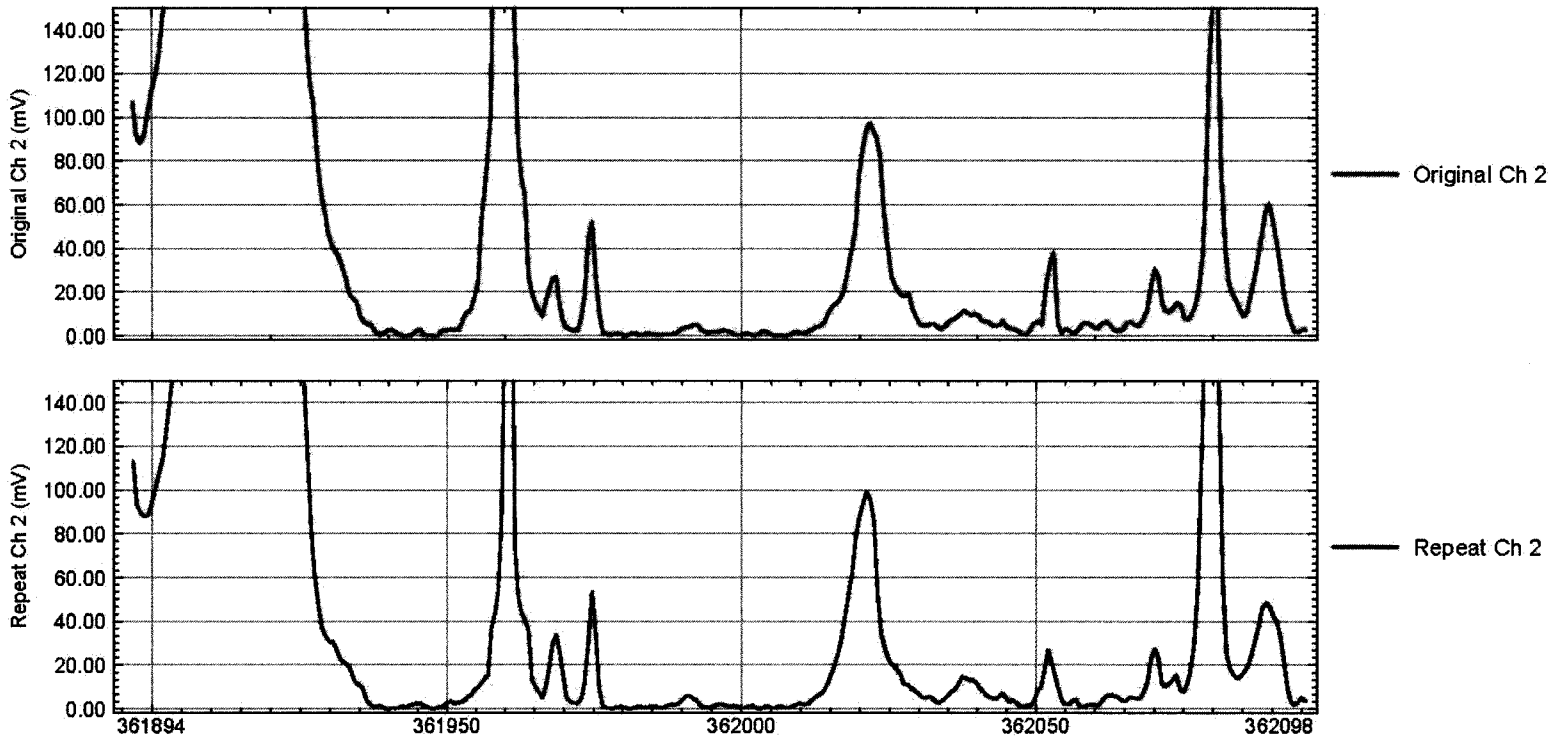


Database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\Knox Mobile Home Park\Geosoft\[illegible]

Reference Date: 2005/12/12(L11.1)
[illegible](L10)

Repeat Line Profiles – Hand Towed

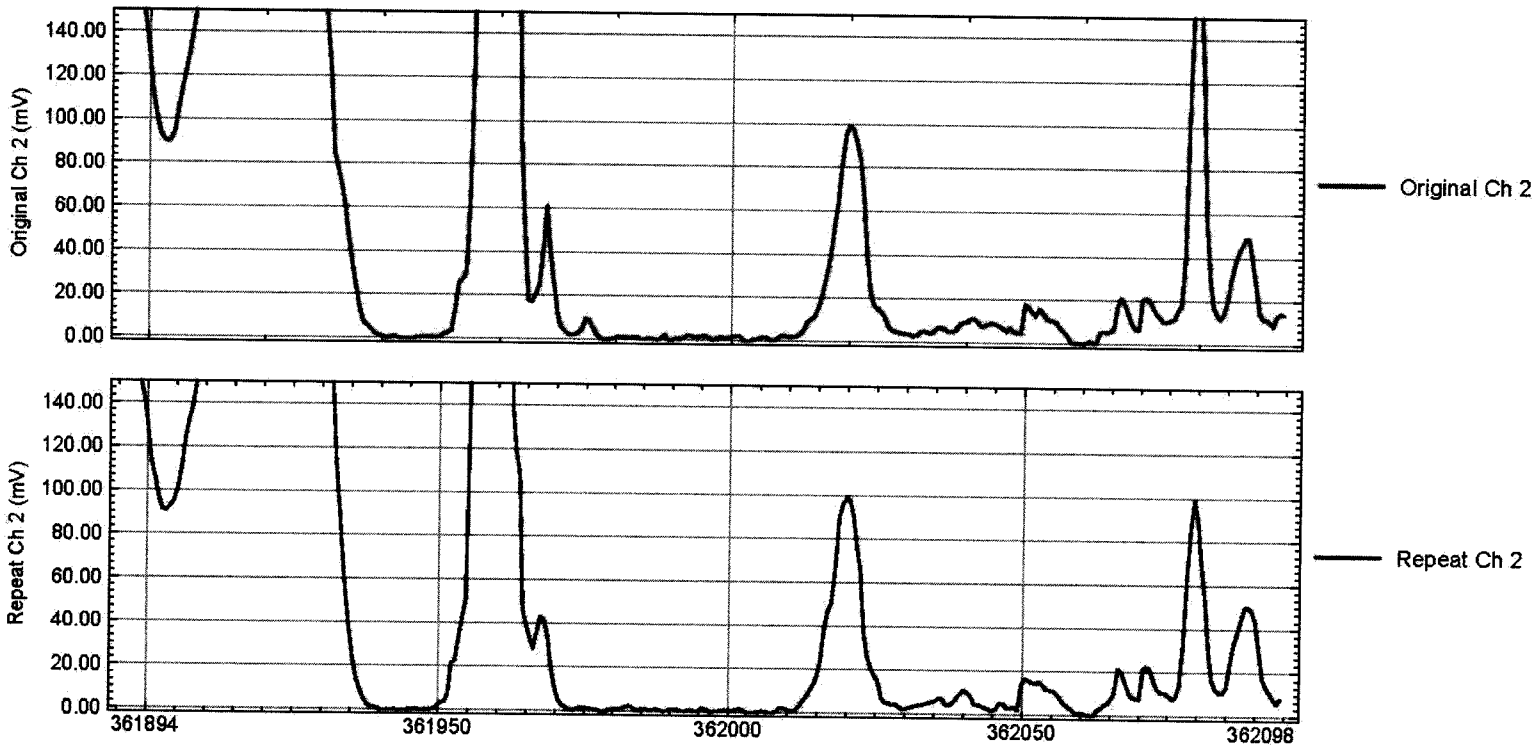
Camp Lejeune - Knox Mobile Home Park - 110W13 Dataset
Grids W13 & X13 - EM62 MKII - Repeat Line 92.5



Team A - Man Portable

2006/01/10

Camp Lejeune - Knox Mobile Home Park - 110W13 Dataset
Grids W13 & X13 - EM62 MKII - Repeat Line 95

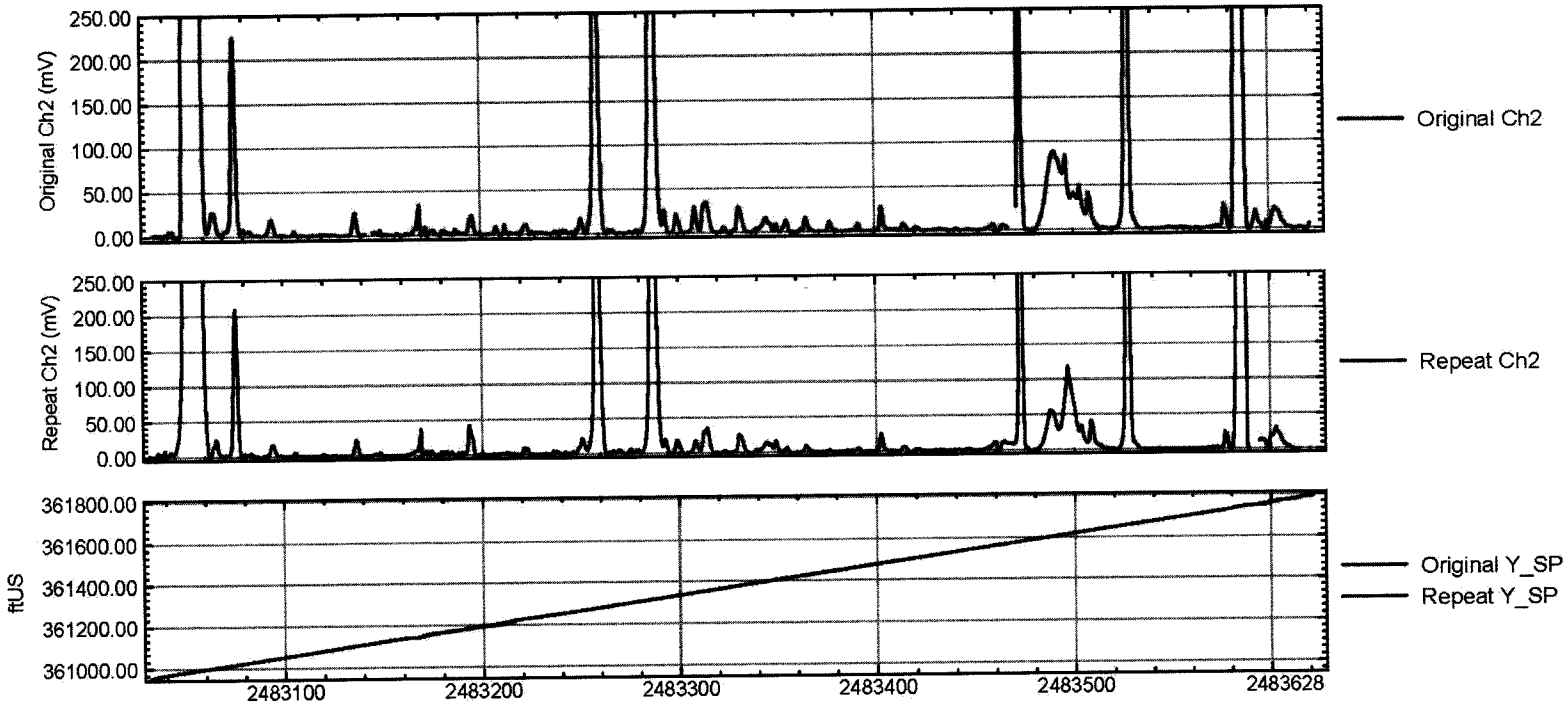


Team A - Man Portable

2006/01/10

Repeat Line Profiles – Towed Array

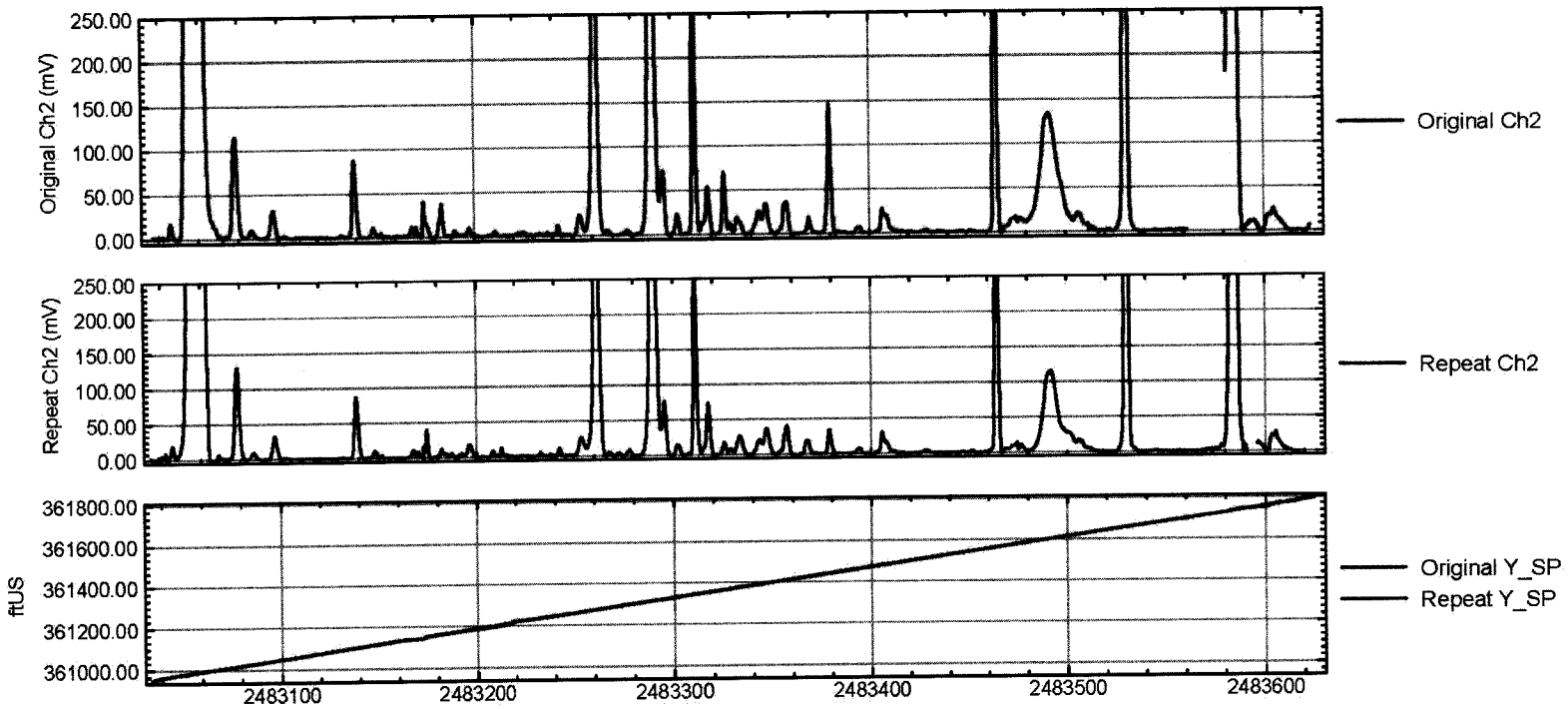
Camp Lejeune - Knox Mobile Home Park - 1221F11 Data Set
EM61 MK2 - Coil 1 - Repeat Line 12



Team C - Towed Array

2005/12/21

Camp Lejeune - Knox Mobile Home Park - 1221F11 Data Set
EM61 MK2 - Coil 2 - Repeat Line 12

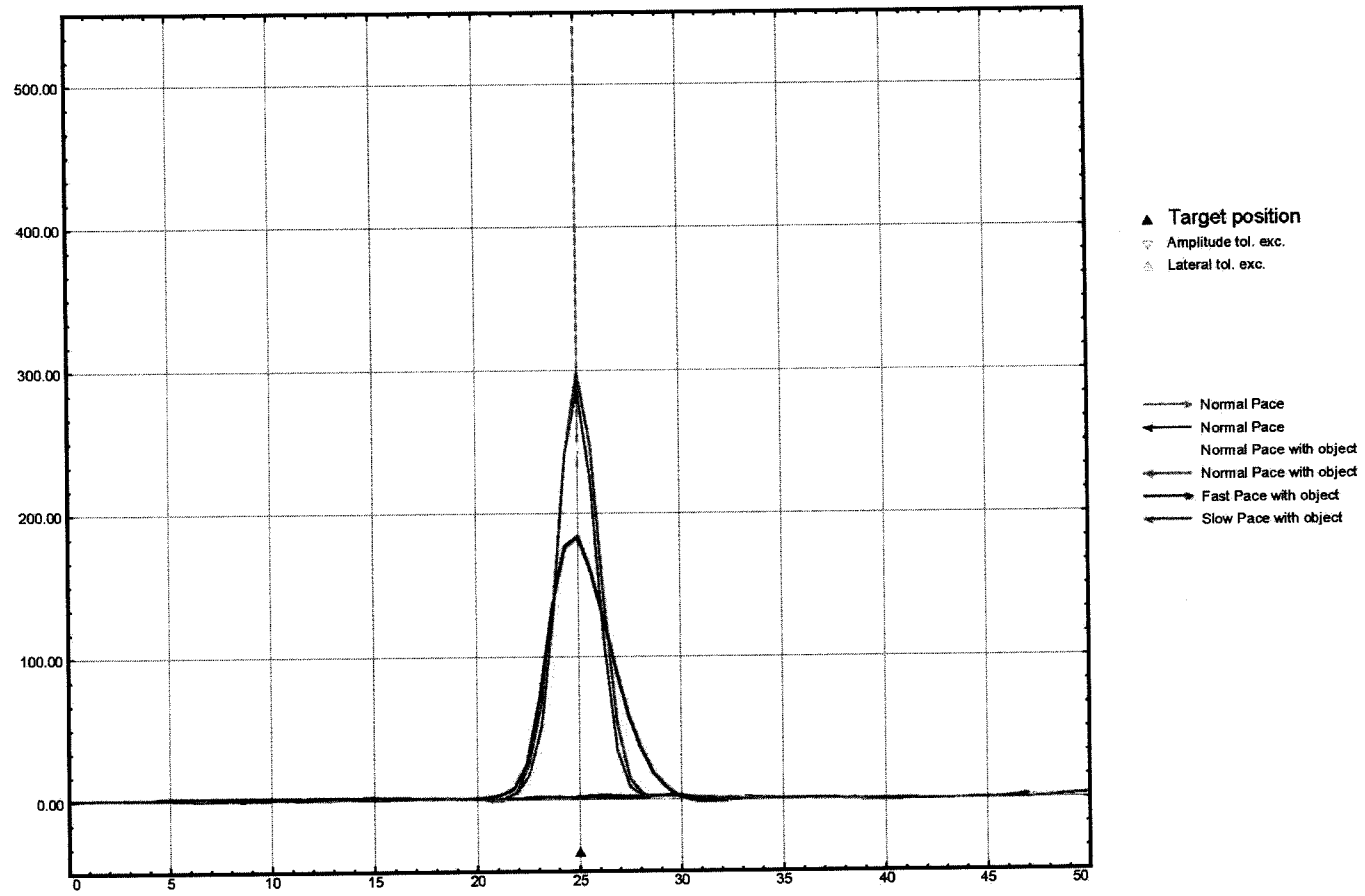


Team C - Towed Array

2005/12/21

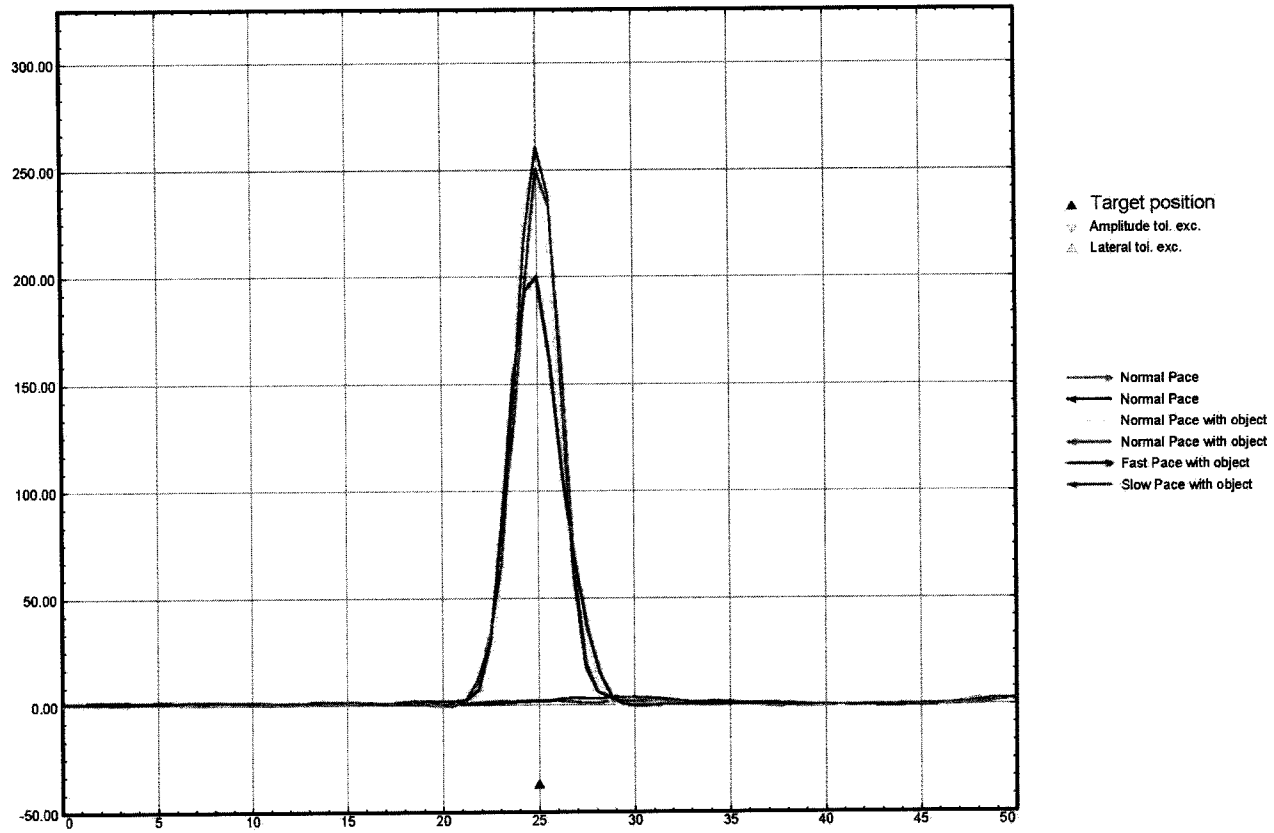
Six Line Test Profiles – Hand Towed

Knox Mobile Home Park - Six Line Test - Team A - Man Portable - 12/06/2005



Channel: Ch 2 level lg

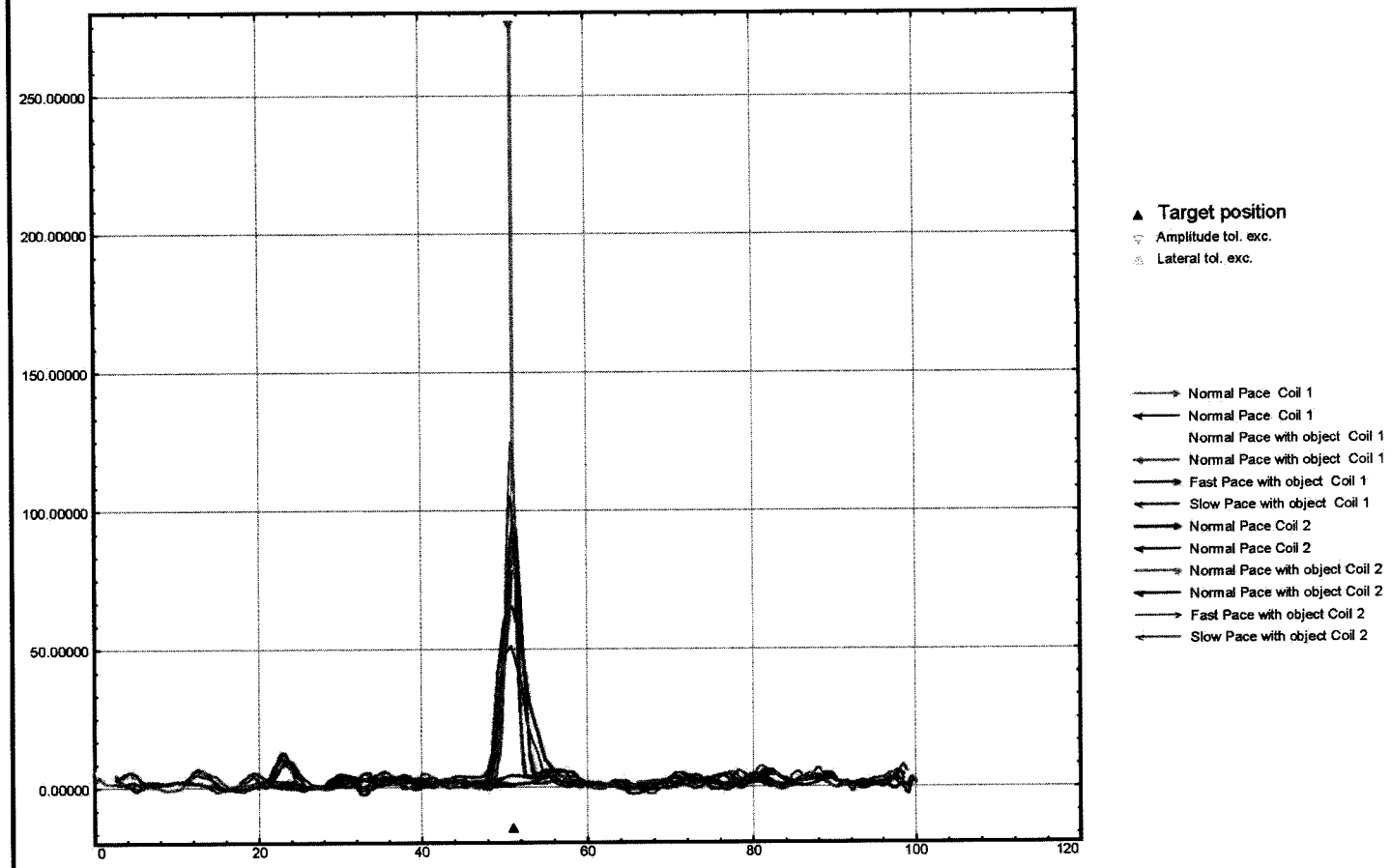
Knox Mobile Home Park - Six Line Test - Team B - Man Portable - 12/06/2005



Channel: Ch 2 level lg

Six Line Test Profiles – Towed Array

Knox Mobile Home Park - Six Line Test - Team C - Towed Array - 12/06/2005



database: g:\virginia office\ch2m hill\camp lejeune\knox mobile home park\geosoft\1209amqc\1209AMQC.gdb Channel: CH_2_level_lg

2005/12/09

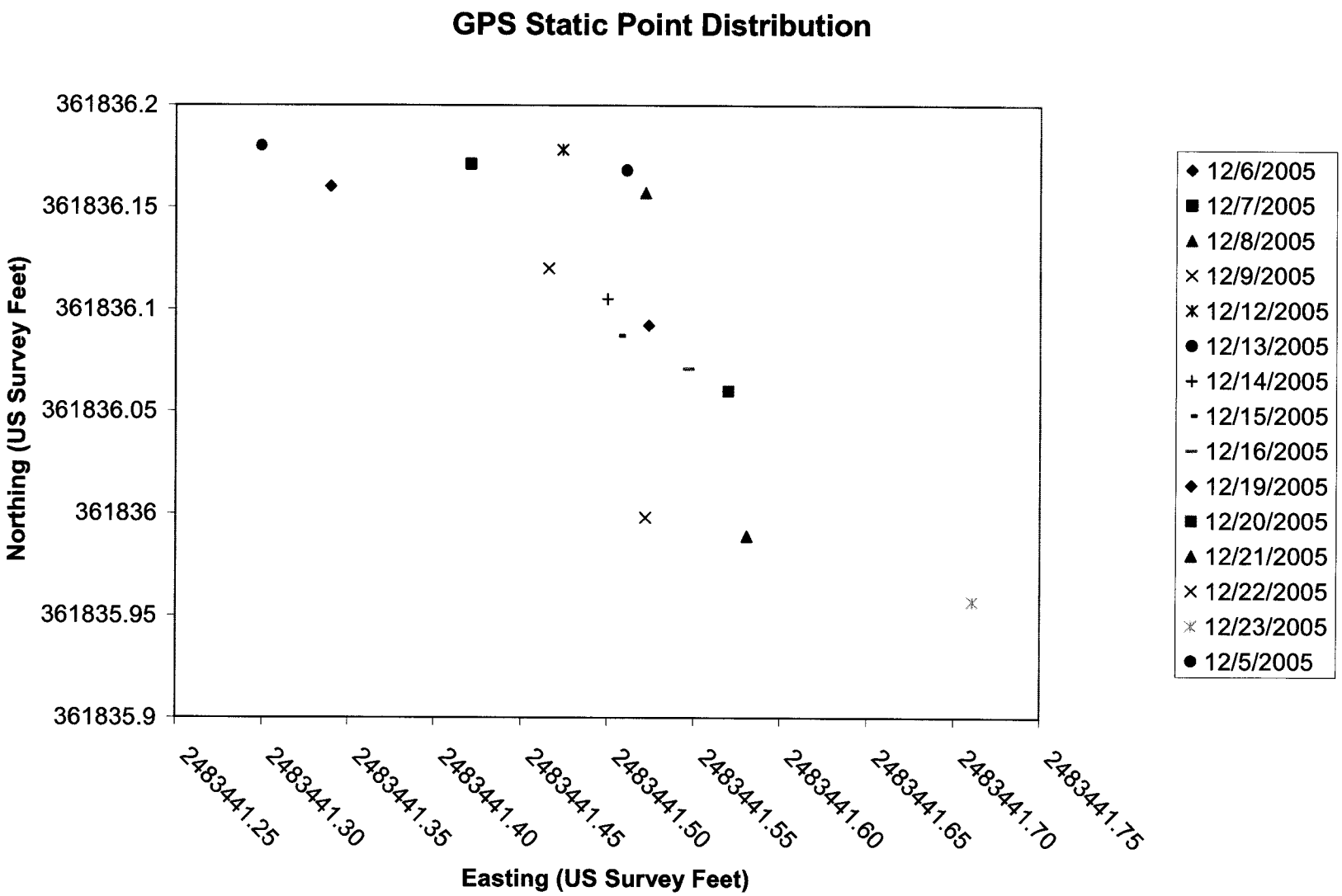
APPENDIX C

GPS QC Tests

Camp Lejeune, North Carolina
Knox Mobile Home Park
GPS Static Test Data
December 5, 2005 – December 23, 2005

Date	Northing	Easting	Difference Easting	Difference Northing	Absolute Offset
12/5/2005	**361836.18**	**2483441.3**			
12/6/2005	361836.16	2483441.34	-0.020	0.040	0.045
12/7/2005	361836.171	2483441.421	-0.009	0.121	0.121
12/8/2005	361836.157	2483441.522	-0.023	0.222	0.223
12/9/2005	361836.12	2483441.466	-0.060	0.166	0.177
12/12/2005	361836.178	2483441.474	-0.002	0.174	0.174
12/13/2005	361836.168	2483441.511	-0.012	0.211	0.211
12/14/2005	361836.105	2483441.5	-0.075	0.200	0.214
12/15/2005	361836.087	2483441.507	-0.093	0.207	0.227
12/16/2005	361836.071	2483441.547	-0.109	0.247	0.270
12/19/2005	361836.092	2483441.524	-0.088	0.224	0.241
12/20/2005	361836.06	2483441.57	-0.120	0.270	0.295
12/21/2005	361835.989	2483441.581	-0.191	0.281	0.340
12/22/2005	361835.998	2483441.64	-0.182	0.340	0.386
12/23/2005	361835.957	2483441.711	-0.223	0.411	0.468
Average:	361836.0995	2483441.508	-0.086	0.222	0.242
Stnd. Dev.	0.072499526	0.090150058			

Note: Differences and offsets were calculated against the 12/5/05 reading. Average and standard deviation calculations include all days. All units are in feet.

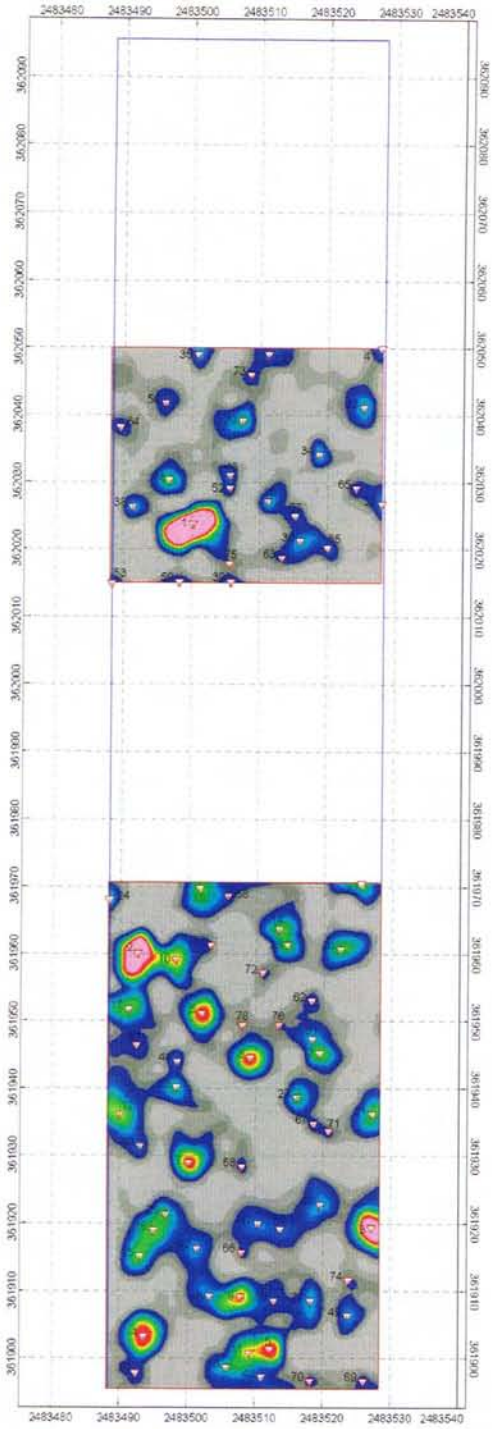

GPS Static Point Distribution
361836.2
361836.15
361836.1
361836.05
361836
361835.95
361835.9
Northing (US Survey Feet)
2483441.25
2483441.30
2483441.35
2483441.40
2483441.45
2483441.50
2483441.55
2483441.60
2483441.65
2483441.70
2483441.75
Easting (US Survey Feet)
12/6/2005
12/7/2005
12/8/2005
12/9/2005
12/12/2005
12/13/2005
12/14/2005
12/15/2005
12/16/2005
12/19/2005
12/20/2005
12/21/2005
12/22/2005
12/23/2005
12/5/2005

APPENDIX D

GP Color Contour Maps and Target Lists

GPO – Hand Towed Team A

Contour Map and Target List



NAEVA GEOPHYSICS INC.
Subsurface Geophysical Surveys

Scale 1:180

10 0 10

US Survey foot
NAD83 / North Carolina CS83

Legend

Area of Investigation

Area Picked for Target Selection

Selected Target
(See Target Pick List For Response and Location)

CH2M HILL

EM61 MK2 Channel 2 - Man Portable
GPO - Team A
Knox Mobile Home Park
Camp Legeune, North Carolina

Date of Survey: December 6, 2005

CH2M Hill
GPO - Team A - Man Portable
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: December 6, 2005

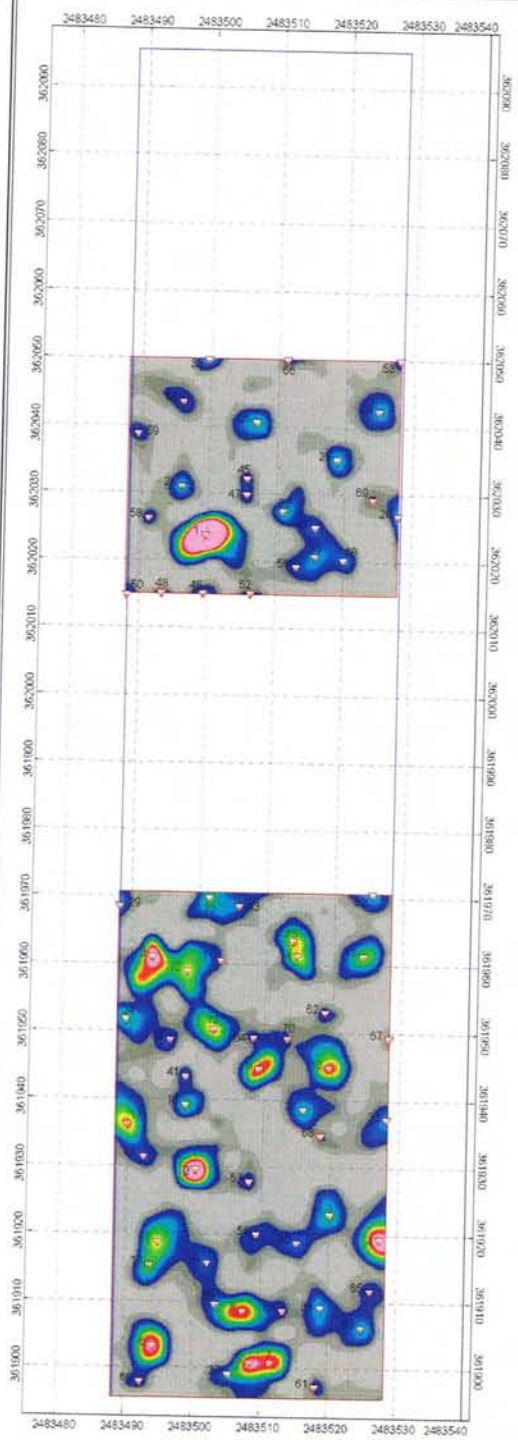
Target Pick Table (EM-61 MK2 - Channel 2)

Targets	Target ID	NAD 83/North Carolina State Planes		Grid Value (mV)
		X (USft)	Y (USft)	
1	GPOA_1	2483500.20	362023.80	210.31
2	GPOA_2	2483492.55	361960.13	112.68
3	GPOA_3	2483527.20	361919.40	98.86
4	GPOA_4	2483493.60	361903.20	51.22
5	GPOA_5	2483512.20	361901.40	49.20
6	GPOA_6	2483502.00	361951.20	45.49
7	GPOA_7	2483500.20	361929.00	42.36
8	GPOA_8	2483509.20	361944.60	40.75
9	GPOA_9	2483507.85	361909.22	35.13
10	GPOA_10	2483498.19	361959.22	29.82
11	GPOA_11	2483509.20	361900.80	26.89
12	GPOA_12	2483490.00	361936.20	24.43
13	GPOA_13	2483519.40	361945.20	20.22
14	GPOA_14	2483513.40	361963.80	19.73
15	GPOA_15	2483493.00	361915.20	19.24
16	GPOA_16	2483495.02	361919.04	19.22
17	GPOA_17	2483491.20	361951.80	16.91
18	GPOA_18	2483501.60	361969.83	16.33
19	GPOA_19	2483496.60	362030.40	16.27
20	GPOA_20	2483522.40	361960.80	16.13
21	GPOA_21	2483527.20	361936.20	15.74
22	GPOA_22	2483525.40	361970.40	15.68
23	GPOA_23	2483514.60	361961.40	15.19
24	GPOA_24	2483488.28	361968.09	14.87
25	GPOA_25	2483496.76	361921.42	14.84
26	GPOA_26	2483505.78	361898.65	14.71
27	GPOA_27	2483516.02	361938.69	13.84
28	GPOA_28	2483498.27	361940.20	13.82
29	GPOA_29	2483507.35	362039.24	13.19
30	GPOA_30	2483511.17	362027.24	11.63
31	GPOA_31	2483518.28	361947.32	11.59
32	GPOA_32	2483527.97	362026.79	11.22
33	GPOA_33	2483525.28	362041.19	10.83
34	GPOA_34	2483518.70	362034.24	10.24
35	GPOA_35	2483500.80	362049.00	10.08
36	GPOA_36	2483515.97	362021.25	10.03

37	GPOA_37	2483518.20	361908.60	9.98
38	GPOA_38	2483491.21	362026.39	9.28
39	GPOA_39	2483505.82	362015.10	9.17
40	GPOA_40	2483519.58	361922.77	8.90
41	GPOA_41	2483527.88	362049.87	8.89
42	GPOA_42	2483501.40	361916.40	8.54
43	GPOA_43	2483505.61	362031.10	8.51
44	GPOA_44	2483498.40	361944.00	8.01
45	GPOA_45	2483523.62	361906.36	8.00
46	GPOA_46	2483503.28	361909.28	7.80
47	GPOA_47	2483510.40	361920.00	7.51
48	GPOA_48	2483511.00	361897.20	7.16
49	GPOA_49	2483493.00	361931.40	7.16
50	GPOA_50	2483498.22	362015.07	6.51
51	GPOA_51	2483513.72	361919.20	6.41
52	GPOA_52	2483505.60	362029.20	6.40
53	GPOA_53	2483488.28	362014.90	6.14
54	GPOA_54	2483511.19	362049.07	6.04
55	GPOA_55	2483520.00	362020.20	6.01
56	GPOA_56	2483496.00	362041.80	6.00
57	GPOA_57	2483515.20	362025.00	5.69
58	GPOA_58	2483505.78	361968.70	5.41
59	GPOA_59	2483512.80	361908.60	5.28
60	GPOA_60	2483492.40	361897.80	5.09
61	GPOA_61	2483492.40	361946.40	4.70
62	GPOA_62	2483518.20	361953.00	4.51
63	GPOA_63	2483513.28	362018.70	4.20
64	GPOA_64	2483489.40	362038.20	4.16
65	GPOA_65	2483524.20	362029.20	4.08
66	GPOA_66	2483508.00	361915.80	4.02
67	GPOA_67	2483518.55	361934.73	4.01
68	GPOA_68	2483508.00	361928.40	3.90
69	GPOA_69	2483526.00	361896.60	3.89
70	GPOA_70	2483518.20	361896.60	3.69
71	GPOA_71	2483520.78	361933.65	3.64
72	GPOA_72	2483511.00	361957.20	3.54
73	GPOA_73	2483508.60	362046.00	3.43
74	GPOA_74	2483523.80	361911.63	3.19
75	GPOA_75	2483505.60	362017.80	3.14
76	GPOA_76	2483513.40	361949.40	3.11
77	GPOA_77	2483503.28	361961.38	3.03
78	GPOA_78	2483508.00	361949.40	3.00

GPO – Hand Towed Team B

Contour Map and Target List



NAEVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys

Scale 1:180

US survey foot
NAD83 / North Carolina (US)

Legend

- Area of Investigation
- Area Picked for Target Selection
- Selected Target (See Target File List for Response and Location)

CH2M HILL

EM61 MK2 Channel 2 - Man Portable
GPO - Team B
Knox Mobile Home Park
Camp Legeune, North Carolina

Date of Survey: December 6, 2005

CH2M Hill
GPO - Team B - Man Portable
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: December 6, 2005

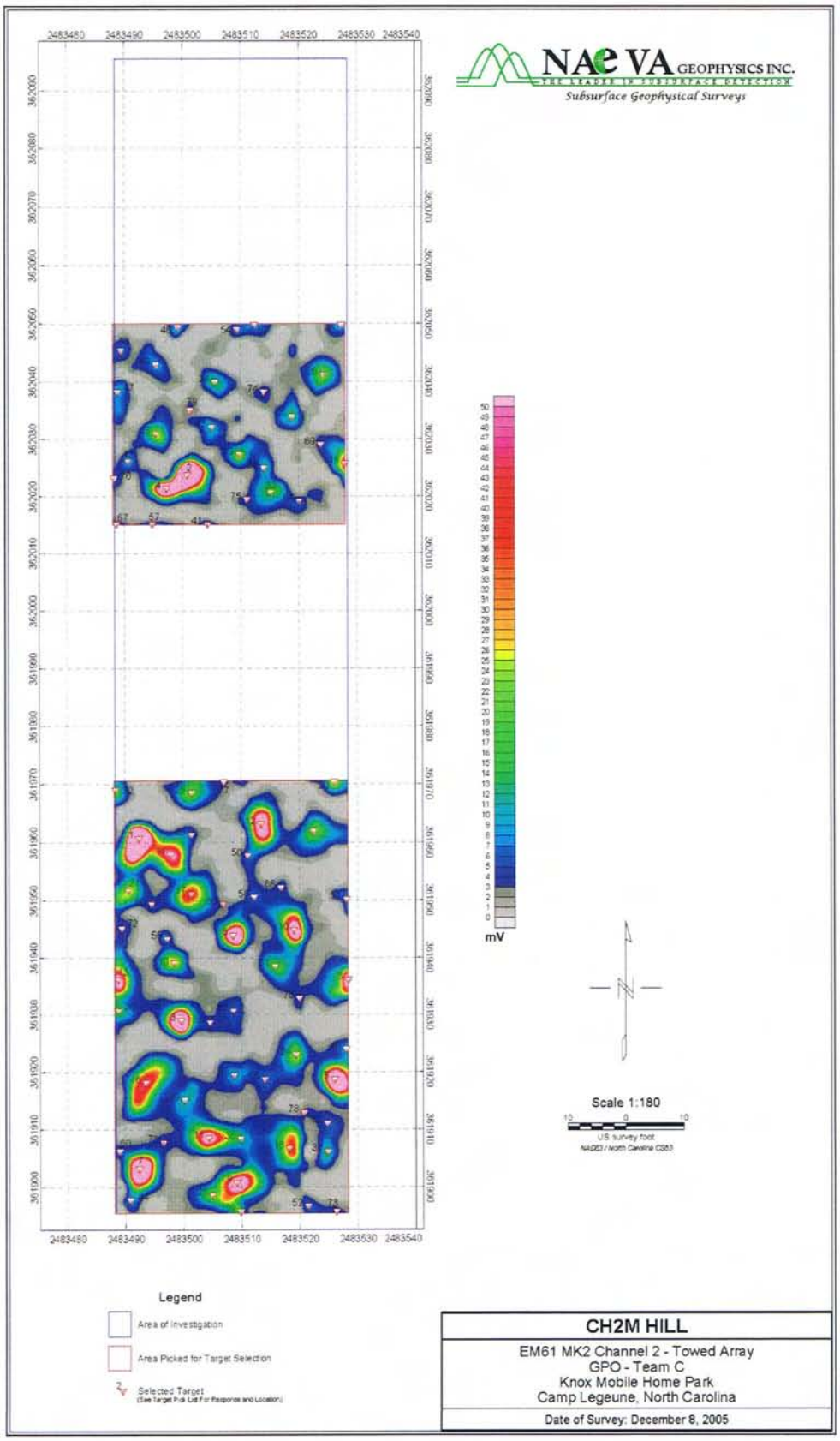
Target Pick Table (EM-61 MK2 - Channel 2)

Targets	Target ID	NAD 83/North Carolina State Planes		Grid Value (mV)
		X (USft)	Y (USft)	
1	GPOB_1	2483499.60	362023.80	261.17
2	GPOB_2	2483500.20	361929.60	103.92
3	GPOB_3	2483493.23	361961.02	78.51
4	GPOB_4	2483527.39	361919.43	70.02
5	GPOB_5	2483508.60	361900.80	59.86
6	GPOB_6	2483494.20	361903.20	57.97
7	GPOB_7	2483511.60	361900.80	45.87
8	GPOB_8	2483507.40	361908.60	45.36
9	GPOB_9	2483509.20	361944.60	44.32
10	GPOB_10	2483519.49	361944.86	37.89
11	GPOB_11	2483490.00	361936.20	33.70
12	GPOB_12	2483502.38	361950.43	29.15
13	GPOB_13	2483498.42	361958.95	28.03
14	GPOB_14	2483514.60	361961.40	27.81
15	GPOB_15	2483513.89	361963.54	27.25
16	GPOB_16	2483494.80	361918.80	27.20
17	GPOB_17	2483524.20	361961.40	19.67
18	GPOB_18	2483493.55	361915.37	17.01
19	GPOB_19	2483498.40	361939.20	16.09
20	GPOB_20	2483527.92	362026.79	14.51
21	GPOB_21	2483520.00	361923.00	14.33
22	GPOB_22	2483511.00	362027.40	14.11
23	GPOB_23	2483501.40	361969.80	13.86
24	GPOB_24	2483489.40	361951.80	13.08
25	GPOB_25	2483518.80	362035.20	12.76
26	GPOB_26	2483506.80	362040.60	11.95
27	GPOB_27	2483496.00	362031.00	11.94
28	GPOB_28	2483515.80	361938.60	11.82
29	GPOB_29	2483488.20	361968.60	10.29
30	GPOB_30	2483524.80	361906.20	10.09
31	GPOB_31	2483518.80	361909.20	10.02
32	GPOB_32	2483525.43	361970.56	9.95
33	GPOB_33	2483528.10	361937.16	9.67
34	GPOB_34	2483524.80	362042.40	9.54
35	GPOB_35	2483499.66	362049.81	9.23
36	GPOB_36	2483515.80	362020.80	9.05
37	GPOB_37	2483505.32	361899.03	9.01

38	GPOB_38	2483520.00	362020.20	8.03
39	GPOB_39	2483503.28	361909.55	7.58
40	GPOB_40	2483515.20	361918.80	7.39
41	GPOB_41	2483498.40	361943.40	7.35
42	GPOB_42	2483515.80	362025.00	7.14
43	GPOB_43	2483505.78	361968.66	7.12
44	GPOB_44	2483502.00	361915.80	6.90
45	GPOB_45	2483505.60	362032.20	6.78
46	GPOB_46	2483499.41	362015.12	6.39
47	GPOB_47	2483505.60	362029.80	6.19
48	GPOB_48	2483493.32	362015.07	6.11
49	GPOB_49	2483496.00	361948.80	6.11
50	GPOB_50	2483488.20	362014.80	5.68
51	GPOB_51	2483492.40	361931.40	5.66
52	GPOB_52	2483506.40	362015.12	5.42
53	GPOB_53	2483527.89	362049.88	5.34
54	GPOB_54	2483496.00	362043.60	5.14
55	GPOB_55	2483513.03	362019.15	5.09
56	GPOB_56	2483509.20	361920.00	4.97
57	GPOB_57	2483508.00	361927.80	4.56
58	GPOB_58	2483491.20	362026.20	4.43
59	GPOB_59	2483489.40	362038.80	4.41
60	GPOB_60	2483492.40	361897.80	4.28
61	GPOB_61	2483518.20	361897.20	4.25
62	GPOB_62	2483518.80	361953.00	4.08
63	GPOB_63	2483513.28	361908.66	3.97
64	GPOB_64	2483508.28	361949.19	3.95
65	GPOB_65	2483526.09	361911.72	3.86
66	GPOB_66	2483511.25	362049.88	3.75
67	GPOB_67	2483528.27	361949.28	3.55
68	GPOB_68	2483518.42	361934.67	3.22
69	GPOB_69	2483524.20	362029.20	3.14
70	GPOB_70	2483513.28	361949.10	3.10
71	GPOB_71	2483503.28	361960.53	3.07

GPO – Towed Array

Contour Map and Target List



CH2M HILL

EM61 MK2 Channel 2 - Towed Array
GPO - Team C
Knox Mobile Home Park
Camp Legeune, North Carolina

Date of Survey: December 8, 2005

CH2M Hill
GPO - Team C - Towed Array
Knox Mobile Home Park
Camp Lejeune, North Carolina

Date of Survey: December 8, 2005

Target Pick Table (EM-61 MK2 - Channel 2)

Targets	Target ID	NAD 83/North Carolina State Planes		Grid Value (mV)
		X (USft)	Y (USft)	
1	GPOC_1	2483492.40	361960.80	256.33
2	GPOC_2	2483500.80	362023.80	230.06
3	GPOC_3	2483499.60	361929.00	150.93
4	GPOC_4	2483497.20	362021.40	123.24
5	GPOC_5	2483526.00	361918.80	114.37
6	GPOC_6	2483508.60	361944.00	107.60
7	GPOC_7	2483492.40	361903.20	106.94
8	GPOC_8	2483528.40	361936.20	96.09
9	GPOC_9	2483509.20	361900.80	93.77
10	GPOC_10	2483519.07	361944.94	71.87
11	GPOC_11	2483504.40	361908.60	71.32
12	GPOC_12	2483513.40	361963.20	70.59
13	GPOC_13	2483488.80	361936.20	64.19
14	GPOC_14	2483497.82	361958.02	54.23
15	GPOC_15	2483527.91	362025.79	52.59
16	GPOC_16	2483493.60	361918.20	46.91
17	GPOC_17	2483501.40	361951.20	42.05
18	GPOC_18	2483518.20	361906.80	39.98
19	GPOC_19	2483498.40	361939.20	27.99
20	GPOC_20	2483526.00	361970.40	27.04
21	GPOC_21	2483490.60	361951.80	25.91
22	GPOC_22	2483509.80	362027.40	25.36
23	GPOC_23	2483495.40	362031.00	24.95
24	GPOC_24	2483519.40	361923.00	23.14
25	GPOC_25	2483504.99	361898.68	20.65
26	GPOC_26	2483524.20	362041.20	20.12
27	GPOC_27	2483522.40	361962.00	19.70
28	GPOC_28	2483501.40	361968.60	19.42
29	GPOC_29	2483509.85	361895.82	17.84
30	GPOC_30	2483488.80	361930.80	17.04
31	GPOC_31	2483515.80	361938.60	17.03
32	GPOC_32	2483488.40	361969.11	16.83
33	GPOC_33	2483515.20	362020.80	15.62
34	GPOC_34	2483505.60	362040.00	14.64
35	GPOC_35	2483518.80	362034.00	14.38
36	GPOC_36	2483509.86	361908.45	14.21
37	GPOC_37	2483524.80	361906.20	12.76

38	GPOC_38	2483514.00	362025.00	11.81
39	GPOC_39	2483500.20	361915.20	11.44
40	GPOC_40	2483499.15	362049.45	11.38
41	GPOC_41	2483504.29	362015.17	11.22
42	GPOC_42	2483490.60	362026.20	10.90
43	GPOC_43	2483505.00	362032.20	10.80
44	GPOC_44	2483490.80	361897.84	10.53
45	GPOC_45	2483527.32	362049.78	9.78
46	GPOC_46	2483527.99	361923.94	9.69
47	GPOC_47	2483488.80	362038.20	9.17
48	GPOC_48	2483508.74	361919.52	8.88
49	GPOC_49	2483495.40	362043.00	8.63
50	GPOC_50	2483511.10	361957.79	8.48
51	GPOC_51	2483528.06	361950.24	7.81
52	GPOC_52	2483521.41	361896.77	7.62
53	GPOC_53	2483512.42	362049.86	7.55
54	GPOC_54	2483509.39	362049.06	7.53
55	GPOC_55	2483497.20	361943.40	7.32
56	GPOC_56	2483514.00	361918.80	7.25
57	GPOC_57	2483494.78	362015.17	7.23
58	GPOC_58	2483512.20	361950.60	7.02
59	GPOC_59	2483489.40	362045.40	6.72
60	GPOC_60	2483489.01	361906.22	6.53
61	GPOC_61	2483508.60	361930.80	6.48
62	GPOC_62	2483524.74	361911.18	6.34
63	GPOC_63	2483501.37	361961.38	5.59
64	GPOC_64	2483520.07	362019.20	5.58
65	GPOC_65	2483494.53	361949.40	5.19
66	GPOC_66	2483516.78	361952.27	5.18
67	GPOC_67	2483488.65	362015.17	5.12
68	GPOC_68	2483504.54	361928.67	4.96
69	GPOC_69	2483523.74	362029.08	4.91
70	GPOC_70	2483488.20	362023.20	4.84
71	GPOC_71	2483496.53	361907.76	4.59
72	GPOC_72	2483489.40	361945.20	4.57
73	GPOC_73	2483526.29	361895.87	4.56
74	GPOC_74	2483514.00	362038.20	4.51
75	GPOC_75	2483511.07	362019.45	4.40
76	GPOC_76	2483519.95	361932.89	3.89
77	GPOC_77	2483506.99	361970.42	3.85
78	GPOC_78	2483520.78	361913.07	3.65
79	GPOC_79	2483501.28	362035.08	3.31
80	GPOC_80	2483506.79	361949.42	3.28

Appendix C
Geophysical Proveout Report

Geophysical Proveout Report
for the
Expanded Site Inspection

Knox Mobile Home Park
MCB Camp Lejeune, NC

Contract Task Order 109
June 2006

Prepared for
Department of the Navy
Atlantic Division
Naval Facilities Engineering Command

Under the
LANTDIV CLEAN III Program
Contract N62470-02-D-3052

Prepared by

CH2MHILL

Virginia Beach, Virginia

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Attachments

1 QC Documentation

Acronyms and Abbreviations

CTO	Contract Task Order
DGM	Digital Geophysical Mapping
DID	Data Item Description
DQO	Data Quality Objective
ft	Feet
FTP	File Transfer Protocol
GPO	Geophysical Prove-Out
GPS	Global Positioning System
in.	Inch
m	Meter
MEC	Munitions and Explosives of Concern
mm	Millimeter
MR	Munitions Response
mV	Millivolts
QC	Quality Control
RAC	Remedial Action Contract
RTK	Real-Time Kinematic
SUXOS	Senior UXO Supervisor
µs	microseconds

1.0 Introduction

CH2M HILL conducted an Expanded Site Inspection (ESI), including digital geophysical mapping (DGM), at Munitions Response Program (MRP) Site UXO-04, Knox Mobile Home Park, Marine Corps Base (MCB) Camp Lejeune, North Carolina. This ESI was conducted for the Department of the Navy, Naval Facilities Engineering Command (NAVFAC), Atlantic Division (LANTDIV), under the LANTDIV Comprehensive Long-Term Environmental Action Navy (CLEAN) III Program. This work was performed under Contract Task Order 109 (CTO-109) of Contract No. N62470-02-D-3052.

The DGM effort was conducted by NAEVA, Inc., under subcontract to CH2M HILL, and included a geophysical proveout (GPO) as an element of the DGM quality assurance/quality control (QA/QC) program. This Geophysical Prove-out (GPO) Report documents the GPO activities performed between December 6 and December 8, 2006, as part of the process for validating the DGM systems to be utilized during the geophysical surveys.

2.0 GPO Objective

The primary objective of the GPO was to demonstrate and document the site-specific capabilities of the selected DGM systems to operate as an integrated system capable of meeting project data quality objectives (DQOs). For the purposes of this work, a system is considered to include the survey platform, sensors, navigation equipment, data analysis and management, and associated equipment and personnel.

3.0 Equipment

Because DGM surveys have been effectively performed under similar site conditions using the Geonics™ EM61, it was determined that only an EM61 based systems would be verified for use in the GPO. The following two systems were tested:

- 2-Coil EM61 Towed Array - The EM61 towed array tested during the GPO is a system of two ½-m x 1-m EM61-MK2 coils linked to an RTK GPS for data positioning. The sensor height above the ground surface was tested at approximately 0.35 m (1.15 ft) above ground surface. The sensors were towed by an all-terrain vehicle.
- Single-coil Man-Portable EM61 - The single-coil man-portable EM61 tested during the GPO is a standard ½ x 1 m EM61-MK2. Because the single-coil EM61-MK2 system was to be used in areas where vegetation (trees) prevented the use of a towed system and vegetation canopy prevented the use of GPS, the positioning was performed using a fiducial method.

The EM61-MK2 utilizes the electromagnetic induction technique. This technique uses an active sensor that induces currents in conductive objects near the instrument that are measured by a receiving coil to detect both ferrous and non-ferrous items. Photographs of the systems used in the GPO are presented as Figure 1.

Figure 1. EM61-MK2 systems tested (array and single-coil)

4.0 Procedures

This section presents a summary of the procedures followed during the GPO.

4.1 Test Grid Location, Screening and Construction

The approximate GPO grid location was selected by the project team at an onsite location having a minimal amount of metallic debris. The CH2M HILL Munitions Response (MR) Geophysicist then selected a specific 40 ft x 200 ft plot and the grid corners were surveyed by a North Carolina Registered Professional Land Surveyor. The location of the GPO is shown on Figure 2.

After the GPO plot was selected, the DGM subcontractor, NAEVA Geophysics, Inc., performed a background DGM survey to document existing anomalies and to make a final determination as to whether the location could be used as the GPO.

After pre-processing the background DGM data, the data files were given to the CH2M HILL MR Geophysicist. (NAEVA was instructed not to grid or view the actual background data.) The data were then further processed by the CH2M HILL MR Geophysicist and displayed in Geosoft Oasis Montaj™ for onsite analysis by CH2M HILL technical personnel. A map of the background DGM results is presented as Figure 3. Many anomalies were present in the GPO area; however, it was determined that the area could be effectively used for the GPO and NAEVA personnel remained clear of these locations during GPO seed items placement.

CH2M HILL personnel selected seed item locations within the GPO plots. A UXO Technician then screened the locations with a Schonstedt magnetometer, and the team excavated holes in which to place the seed items. The holes were backfilled after the seed items were placed.

Seed items consisted of simulated MK2 grenades (2" x 4" steel pipes), placed at the location shown on Figure 4. After digging the holes, the labeled items were positioned at the depths and orientations shown in Table 1. The items were placed such that the distance from the approximate ground surface (as indicated by placing the handle of a shovel from one side of the hole to the other and measuring from its base) to the topmost point on the seed item was equal to the depth (measured using a metallic tape measure) in the table.

Once the items were positioned in the holes, a professional land surveyor proceeded to survey the locations (easting, northing) of the items. Table 1 contains the positioning data collected by

the surveyor. After the professional land surveyor completed the survey of the items, each hole was backfilled and the ground surface returned as close as possible to the original elevation. Figure 4 is an as-built of the plot showing the locations of all of the seed items.

Table 1. GPO Seed Items

ID	Ordnance Type	Depth (in.)	Orientation	Direction	Easting	Northing
GPO-1	MK2 Grenade	6	Horizontal	North-South	361902.5	2483492.9
GPO-2	MK2 Grenade	12	Horizontal	North-South	361915.2	2483492.7
GPO-3	MK2 Grenade	18	Horizontal	North-South	361915.3	2483500.2
GPO-4	MK2 Grenade	22	Horizontal	North-South	361919.0	2483507.8
GPO-5	MK2 Grenade	24*	Horizontal	North-South	361929.6	2483507.6
GPO-6	MK2 Grenade	6	Vertical	Not Applicable	361929.0	2483499.5
GPO-7	MK2 Grenade	12	Vertical	Not Applicable	361936.0	2483489.1
GPO-8	MK2 Grenade	18	Vertical	Not Applicable	361939.4	2483497.8
GPO-9	MK2 Grenade	22	Vertical	Not Applicable	361938.7	2483515.5
GPO-10	MK2 Grenade	24*	Vertical	Not Applicable	361944.4	2483508.9
GPO-11	MK2 Grenade	6	Horizontal	East-West	361950.8	2483501.5
GPO-12	MK2 Grenade	12	Horizontal	East-West	361961.1	2483522.7
GPO-13	MK2 Grenade	18	Horizontal	East-West	362040.1	2483505.9
GPO-14	MK2 Grenade	22	Horizontal	East-West	362043.0	2483494.9
GPO-15	MK2 Grenade	24*	Horizontal	North-South	361910.3	2483525.4

Notes:
Coordinates in NAD83, North Carolina State Plane, U.S. Survey Feet
**Item is deeper than DQO required depth*

4.2 DGM Surveys

After seeding was completed, NAEVA performed a DGM survey over the GPO plot with each system using the same procedures as intended for the surveys of the project site. The data sets were processed, interpreted and anomaly selections made by NAEVA prior to transfer of the data to CH2M HILL's MR Geophysicist for review and further analysis. Raw and processed geophysical data and a target selection spreadsheet ("dig sheet") were delivered by NAEVA to the CH2M HILL MR Geophysicist within 24 hours of data collection using the file formats specified in the project work plan.

5.0 Data Processing and Interpretation

Processing steps used by NAEVA are discussed in this subsection.

5.1 Data Processing

Instrument-specific software (Geonics' DAT61-MK2™) was used for initial data processing and the output was imported into Geosoft Oasis Montaj™ for additional processing, graphical display, anomaly selections and QC. General processing steps performed on the data included the following:

- Positional offset correction

- Sensor bias, background leveling and/or standardization adjustment
- Sensor drift removal
- Latency correction
- Contour level selection with background shading

5.2 Interpretation/Anomaly Selection

Geophysicists, experience in the processing of data from munitions and explosives of concern (MEC) sites, used the following criteria for selecting and locating anomalies:

- Automatic target picking on Channel 2 (366 µs time gate) using Blakely test (Smoothing passes = 3, Peak detection = Normal, Grid cutoff level = 3).
- Manual removal of all anomalies where multiples exist. (Keeping the one closest to the center or primary peak of the anomaly.)
- Manual review of the data to add or remove anomalies at the discretion of the data processor.

6.0 Results and Analysis

During the GPO data collection activities, the CH2M HILL MR Geophysicist observed the geophysical detection instruments operating in NAEVA's configurations, using NAEVA personnel and methodologies. All data collection was consistent with documented procedures and met project DQOs.

6.1 Background DGM Survey

A discussion of the results of the background DGM survey was presented in Section 4.1.

6.2 DGM Surveys over Seeded GPO Plot

Figures 5, 6 and 7 present the graphical results of the DGM surveys over the seeded GPO plot. Because of the predominance of pre-existing anomalies in the central area of the grid, NAEVA was asked to select anomalies only in the lower and upper sections of the plot, where the seed items were planted in areas without existing anomalies. CH2M HILL has performed an analysis on the DGM data collected and a summary of the DQOs and results are presented in Table 2.

CH2M HILL's analysis indicates that all DQOs outlined in the project Work Plan were met during the GPO. It should be noted that reacquisition of the selected anomalies was not performed during the GPO because reacquiring anomalies at the site was not anticipated; however, should this operation be planned at any time in the future the subcontractor performing reacquisition will be asked to demonstrate that they can meet the reacquisition DQO prior to performing the activity. It should also be noted that because of the site-wide level of metallic contamination and the presence of anomalies in the background survey of the GPO plot, the high number of anomalies selected in the plot with respect to the actual number of seed items planted is a result of existing anomalies and not equipment or process failure.

TABLE 2
Summary of GPO Results with Respect to Project Data Quality Objectives

Data Quality Objective	Measurement Performance Criteria	Test Method During GPO
General System Functioning		
Accurate coordinates are being obtained from DGM positioning systems.	Positional error at known monuments will not exceed ±20 cm.	DQO Met
Repeatable data are being obtained from DGM system.	Response to standardized item will not vary more than ±20%.	DQO Met
DGM Surveys		
DGM survey system can detect all MEC to the depths specified by the following equation: Estimated Detection Depth (meters) = 11*diameter (mm) / 1000 (Depth is to top of the item.)	Sensor to identify 100% of all MEC items (or their surrogates in the GPO) at depths fitting within the detection depth equation.	DQO Met
Downline data density is sufficient to detect MEC items.	Over 98% of possible sensor readings are captured along a transect. In addition, any transect containing a data gap of 2 ft or greater does not meet the DQO.	DQO Met
Coverage over survey area is sufficient to detect MEC items.	Search transect spacing to vary no more than ±20% of spacing specified in sampling design.	DQO Met
Positioning of detected anomalies is accurate.	95% of all anomaly locations (as shown on the dig sheets) lie within a 1-meter radius of a point on the ground surface directly above the source of the anomaly.	DQO Met
Data Handling		
All data must be delivered in a timely manner and in a useable format.	Data packages are completed and delivered to the CH2M HILL Project Geophysicist within 1 working day of data collection.	DQO Met

7.0 Quality Control

NAEVA was observed collecting data to comply with all of the GPO Plan QC requirements. All documented QC tests were checked for DQO compliance (as specified in the GPO Work Plan) and each test was within those requirements. Documentation for each test is provided in Attachment 1.

8.0 Conclusions

A GPO plot was established at the Knox Park site for use in the validation of DGM systems for performing DGM surveys of the Knox Park site. After CH2M HILL prepared the GPO plot by seeding targets representative of potential MEC at the site, NAEVA personnel performed a survey over the plot and the data were processed and interpreted.

Based on the results of the GPO, it was established that the system met project DQOs and the system was considered validated and appropriate for use at the site.

Figure 3. Background EM61-MK2 Survey Results

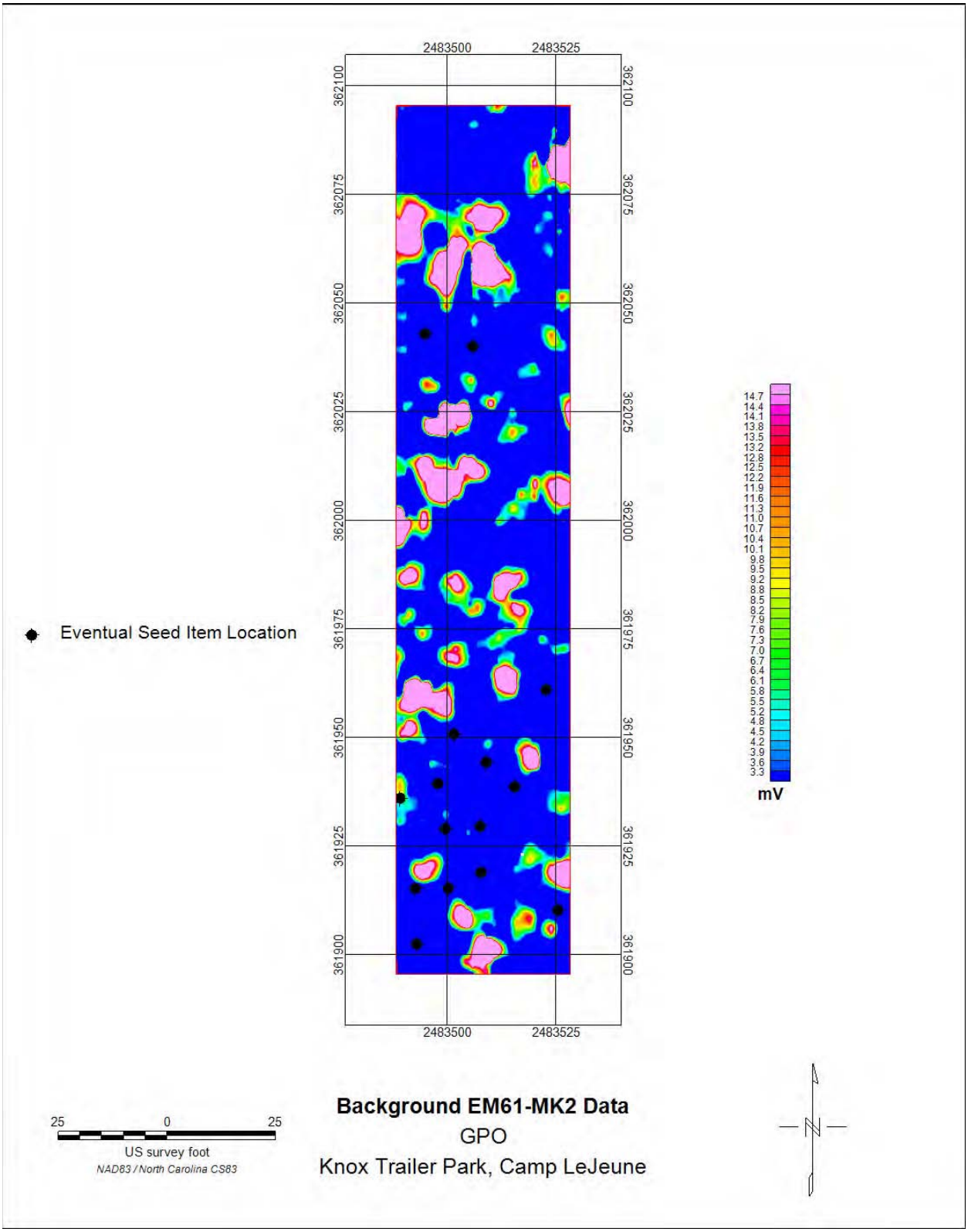


Figure 4. Geophysical Prove-out As-Built Map

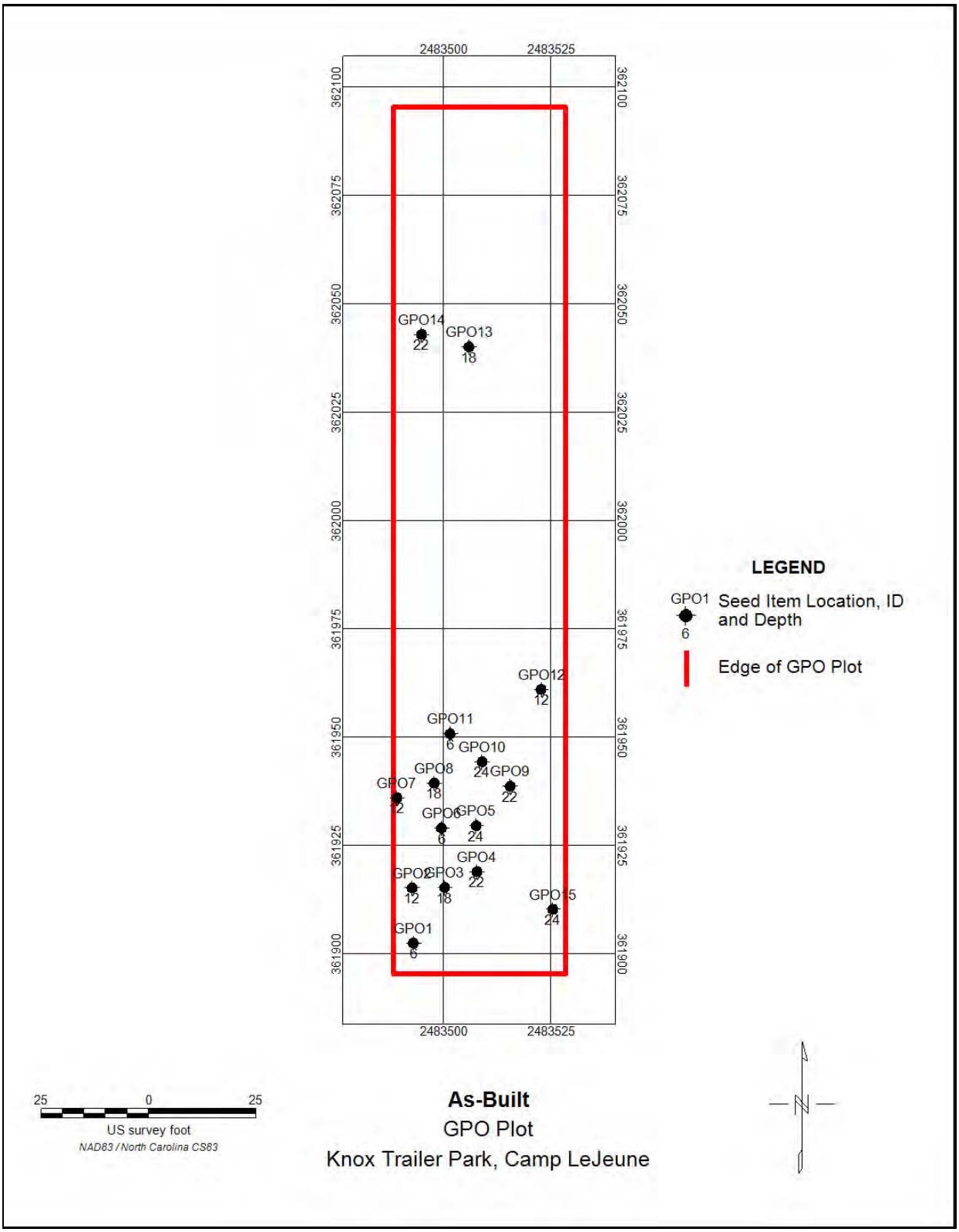


Figure 5. NAEVA Map of EM61-MK2 Array Survey Results - Seeded GPO Plot (Location of Seed Items added to Map by CH2M HILL)

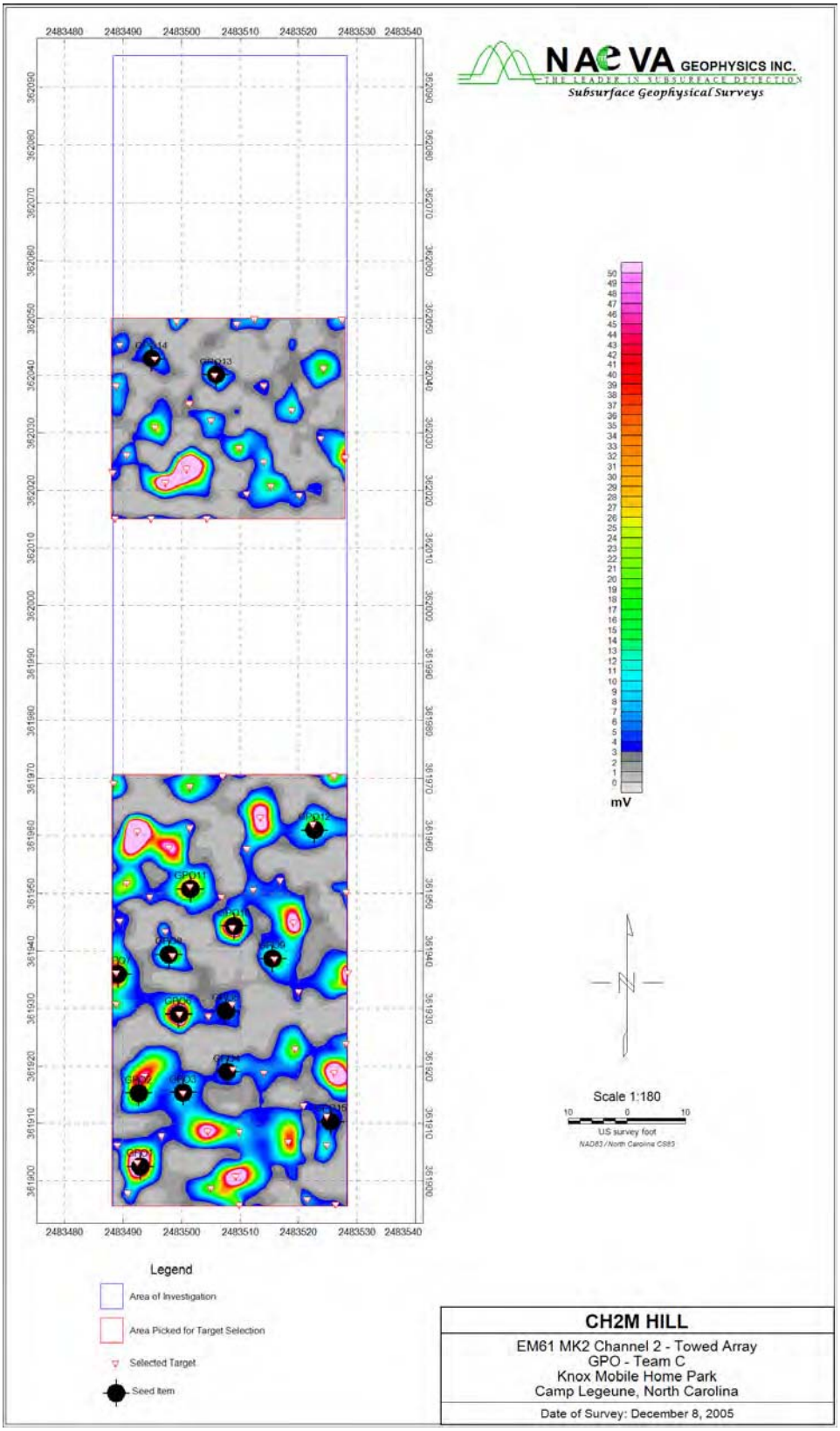


Figure 6. NAEVA Map of EM61-MK2 Single Coil A - Seeded GPO Plot (Location of Seed Items added to Map by CH2M HILL)

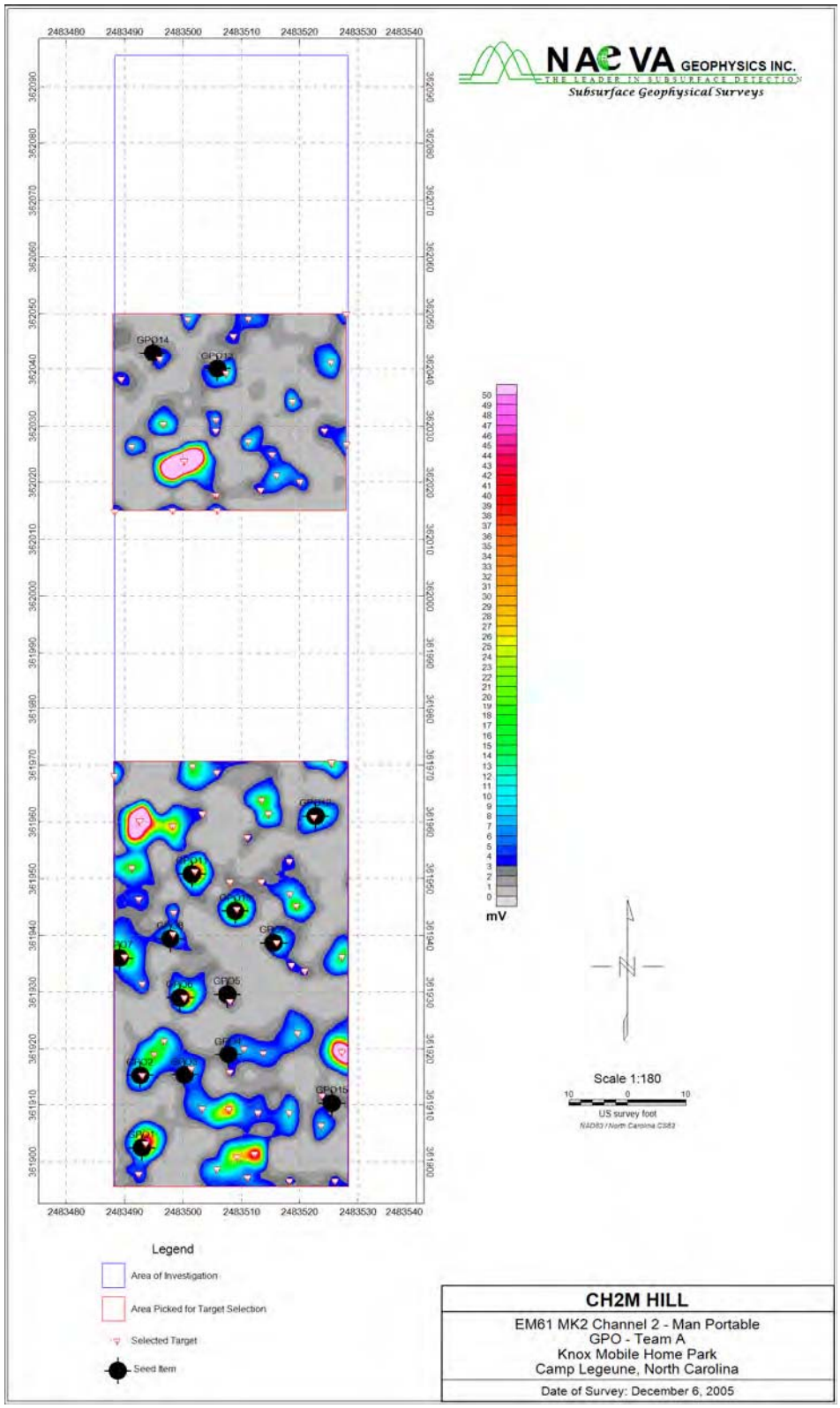
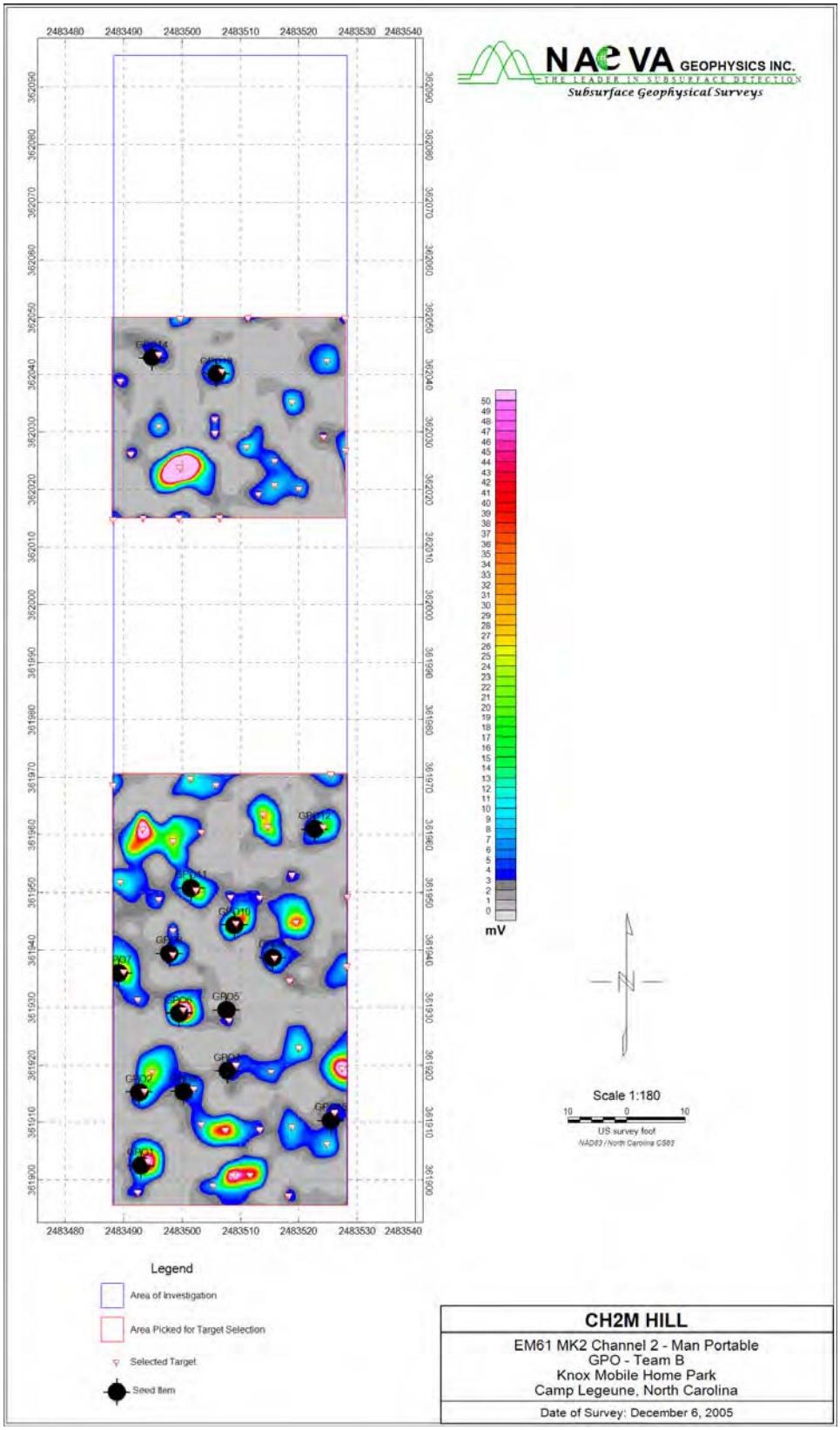


Figure 7. NAEVA Map of EM61-MK2 Single Coil B - Seeded GPO Plot (Location of Seed Items added to Map by CH2M HILL)



Appendix D
Result of Intrusive Investigation

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1	AB17	1/19/2007	AB17-00001	281159.2389	3846266.282	F - Cultural, Other	3050.985107	Cultural Debris	Cultural, Other	14	6	Scrap Bin	Bolts , Nuts.
2	AB17	1/18/2007	AB17-00002	281157.6059	3846255.973	F - Cultural, Other	265.4876709	Cultural Debris	Cultural, Other	1	4	Scrap Bin	36 inch pipe.
3	AB17	1/19/2007	AB17-00003	281167.2952	3846259.563	F - Cultural, Other	246.376709	Cultural Debris	Cultural, Other	1	6	Scrap Bin	1/2 x 6 ft. Flat steel.
4	AB17	1/19/2007	AB17-00004	281159.6959	3846270.078	G - Below 2 ft	212.7132568	Other	Below 2 ft	0	0	No Action Required	
5	AB17	1/19/2007	AB17-00005	281168.2459	3846275.697	D - Scrap Metal	211.4969177	Cultural Debris	Scrap Metal	1	2	Scrap Bin	1 x 24 inch long.
6	AB17	1/19/2007	AB17-00006	281160.0797	3846266.529	H - No Contact	207.7965893	No Contact	N/A	0	0	No Action Required	
7	AB17		AB17-00007	281158.3983	3846275.775		173.315918			0	0		
8	AB17	1/19/2007	AB17-00008	281161.8546	3846279.919	F - Cultural, Other	168.9255066	Cultural Debris	Cultural, Other	1	6	Scrap Bin	1 x 12 inch pipe.
9	AB17		AB17-00009	281158.6541	3846274.544		153.1906128			0	0		
10	AB17		AB17-00010	281157.9778	3846272.893		112.10849			0	0		
11	AB17	1/19/2007	AB17-00011	281165.1445	3846266.82	F - Cultural, Other	111.016922	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Guide wire anchor.
12	AB17	1/19/2007	AB17-00012	281159.4888	3846268.713	F - Cultural, Other	107.8675461	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
13	AB17	1/18/2007	AB17-00013	281157.8498	3846259.583	F - Cultural, Other	102.5602527	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Bolts, Wire, Nails.
14	AB17		AB17-00014	281159.3548	3846272.991		88.39024353			0	0		
15	AB17		AB17-00015	281157.7849	3846278.427		84.36993881			0	0		
16	AB17	1/18/2007	AB17-00016	281156.6189	3846257.996	F - Cultural, Other	81.20537567	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Bolts, Nails, Pipe.
17	AB17	1/19/2007	AB17-00017	281164.1634	3846257.552	F - Cultural, Other	70.61360931	Cultural Debris	Cultural, Other	1	24	Scrap Bin	25 inch rrebar.
18	AB17	1/18/2007	AB17-00018	281157.0393	3846260.878	D - Scrap Metal	70.53145599	Cultural Debris	Scrap Metal	5	6	Scrap Bin	
19	AB17	1/18/2007	AB17-00019	281161.4399	3846254.305	F - Cultural, Other	70.23299408	Cultural Debris	Cultural, Other	8	4	Scrap Bin	Hinge, Nails.
20	AB17	1/18/2007	AB17-00020	281157.8679	3846258.709	D - Scrap Metal	55.50457001	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
21	AB17	1/18/2007	AB17-00021	281156.9723	3846259.203	F - Cultural, Other	52.58543777	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolts , Asphalt.
22	AB17	1/19/2007	AB17-00022	281161.2757	3846276.891	E - Wire	51.05134964	Cultural Debris	Wire	1	12	Scrap Bin	
23	AB17	1/19/2007	AB17-00023	281158.392	3846264.18	F - Cultural, Other	50.50349808	Cultural Debris	Cultural, Other	6	2	Scrap Bin	Bolts
24	AB17	1/19/2007	AB17-00024	281166.6404	3846280.555	E - Wire	48.51996061	Cultural Debris	Wire	1	6	Scrap Bin	
25	AB17	1/18/2007	AB17-00025	281158.8122	3846255.62	D - Scrap Metal	46.5689621	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
26	AB17	1/19/2007	AB17-00026	281169.3545	3846257.65	F - Cultural, Other	45.88399887	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Tent stake.
27	AB17	1/19/2007	AB17-00027	281157.3626	3846280.393	E - Wire	44.87856293	Cultural Debris	Wire	1	6	Scrap Bin	
28	AB17	1/19/2007	AB17-00028	281160.2183	3846272.403	D - Scrap Metal	44.62711205	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
29	AB17	1/19/2007	AB17-00029	281159.5996	3846275.006	F - Cultural, Other	44.26966748	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Magnet.
30	AB17	1/19/2007	AB17-00030	281158.8126	3846278.505	D - Scrap Metal	43.50183868	Cultural Debris	Scrap Metal	3	2	Scrap Bin	
31	AB17	1/19/2007	AB17-00031	281162.3908	3846278.067	F - Cultural, Other	41.4096489	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Monitoring welll.
32	AB17	1/19/2007	AB17-00032	281158.4081	3846271.728	D - Scrap Metal	41.01028627	Cultural Debris	Scrap Metal	2	2	Scrap Bin	
33	AB17	1/18/2007	AB17-00033	281180.6445	3846253.842	D - Scrap Metal	41.00404358	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
34	AB17	1/19/2007	AB17-00034	281161.7813	3846270.463	F - Cultural, Other	40.00988007	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Wire, Bolt.
35	AB17	1/19/2007	AB17-00035	281164.8583	3846274.917	D - Scrap Metal	39.94020462	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
36	AB17	1/19/2007	AB17-00036	281158.1421	3846261.749	F - Cultural, Other	38.39057159	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Scrap metal.
37	AB17	1/19/2007	AB17-00037	281161.7934	3846263.14	C - Nail	37.65914917	Cultural Debris	Nail	4	24	Scrap Bin	
38	AB17	1/18/2007	AB17-00038	281158.6112	3846254.407	F - Cultural, Other	36.03391266	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Clamp, Wire.
39	AB17	1/19/2007	AB17-00039	281158.1117	3846260.988	D - Scrap Metal	34.43481827	Cultural Debris	Scrap Metal	1	6	Scrap Bin	12 inch metai rod.
40	AB17	1/19/2007	AB17-00040	281165.3335	3846275.356	E - Wire	33.74796677	Cultural Debris	Wire	2	4	Scrap Bin	
41	AB17	1/18/2007	AB17-00041	281157.807	3846257.186	F - Cultural, Other	33.51656342	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Banding material, Nails, Wire.
42	AB17	1/19/2007	AB17-00042	281159.0137	3846279.717	E - Wire	31.74681473	Cultural Debris	Wire	2	6	Scrap Bin	
43	AB17	1/18/2007	AB17-00043	281183.3863	3846257.546	F - Cultural, Other	30.73086739	Cultural Debris	Cultural, Other	1	6	Scrap Bin	18 inch bolt.
44	AB17	1/19/2007	AB17-00044	281160.5444	3846262.427	F - Cultural, Other	30.68129158	Cultural Debris	Cultural, Other	3	24	Scrap Bin	Chain, Hook, pipe.
45	AB17	1/19/2007	AB17-00045	281160.9284	3846275.837	D - Scrap Metal	30.45475388	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Canister.
46	AB17	1/19/2007	AB17-00046	281157.9475	3846279.76	F - Cultural, Other	30.38215446	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Wire.
47	AB17	1/19/2007	AB17-00047	281167.8803	3846270.372	C - Nail	28.73902321	Cultural Debris	Nail	7	6	Scrap Bin	
48	AB17	1/19/2007	AB17-00048	281166.1315	3846264.797	F - Cultural, Other	27.71000481	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Clamp
49	AB17	1/19/2007	AB17-00049	281165.6626	3846279.767	F - Cultural, Other	26.1622963	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pliers.
50	AB17	1/19/2007	AB17-00050	281176.0326	3846275.843	D - Scrap Metal	25.78665161	Cultural Debris	Scrap Metal	5	24	Scrap Bin	4 x 8 inches
51	AB17	1/18/2007	AB17-00051	281158.9825	3846256.574	D - Scrap Metal	23.34180825	Cultural Debris	Scrap Metal	7	12	Scrap Bin	
52	AB17	1/19/2007	AB17-00052	281167.1857	3846268.264	D - Scrap Metal	22.45794868	Cultural Debris	Scrap Metal	10	12	Scrap Bin	
53	AB17	1/19/2007	AB17-00053	281163.8954	3846258.479	F - Cultural, Other	21.20347023	Cultural Debris	Cultural, Other	1	24	Scrap Bin	30 inch rebar.
54	AB17	1/19/2007	AB17-00054	281164.8278	3846270.341	F - Cultural, Other	20.37783241	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Pipe, Reducers.
55	AB17	1/18/2007	AB17-00055	281180.5226	3846254.609	D - Scrap Metal	19.88627052	Cultural Debris	Scrap Metal	1	18	Scrap Bin	
56	AB17	1/19/2007	AB17-00056	281164.194	3846262.128	C - Nail	19.75258827	Cultural Debris	Nail	1	6	Scrap Bin	
57	AB17	1/18/2007	AB17-00057	281160.0142	3846256.803	D - Scrap Metal	17.96059036	Cultural Debris	Scrap Metal	7	12	Scrap Bin	Angle iron, Banding material.
58	AB17	1/19/2007	AB17-00058	281172.7302	3846273.381	D - Scrap Metal	16.21398926	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
59	AB17	1/18/2007	AB17-00059	281157.3988	3846262.237	F - Cultural, Other	15.90400887	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts, Nut.
60	AB17	1/19/2007	AB17-00060	281187.1402	3846266.579	F - Cultural, Other	14.93487877	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pipe
61	AB17	1/19/2007	AB17-00061	281159.3448	3846281.883	I - Under Road	14.74139525	Other	Under Road	0	0	No Action Required	
62	AB17	1/19/2007	AB17-00062	281173.9245	3846276.538	D - Scrap Metal	14.34161568	Cultural Debris	Scrap Metal	2	24	Scrap Bin	
63	AB17	1/19/2007	AB17-00063	281159.684	3846257.847	F - Cultural, Other	14.18321635	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Tractor pin.
64	AB17	1/19/2007	AB17-00064	281156.8322	3846263.327	F - Cultural, Other	14.01542282	Cultural Debris	Cultural, Other	1	18	Scrap Bin	6 inch Scissors.
65	AB17	1/19/2007	AB17-00065	281168.3493	3846263.03	D - Scrap Metal	13.85292149	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
66	AB17	1/19/2007	AB17-00066	281163.067	3846272.09	F - Cultural, Other	13.47102356	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Metal rebar.
67	AB17	1/19/2007	AB17-00067	281171.6456	3846269.153	F - Cultural, Other	13.35344124	Cultural Debris	Cultural, Other	7	24	Scrap Bin	Bolts, Nails, Wire.
68	AB17	1/19/2007	AB17-00068	281166.9543	3846277.732	F - Cultural, Other	12.8007822	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Bolt.
69	AB17	1/18/2007	AB17-00069	281181.1868	3846259.77	F - Cultural, Other	12.15674114	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Pipe, Bolt.
70	AB17	1/19/2007	AB17-00070	281163.2619	3846273.15	C - Nail	11.81848621	Cultural Debris	Nail	1	6	Scrap Bin	
71	AB17	1/18/2007	AB17-00071	281178.5181	3846257.893	C - Nail	11.78781796	Cultural Debris	Nail	3	2	Scrap Bin	
72	AB17	1/19/2007	AB17-00072	281184.8914	3846264.656	H - No Contact	10.79810905	No Contact	N/A	0	0	No Action Required	
73	AB17	1/19/2007	AB17-00073	281161.6166	3846258.722	C - Nail	10.54582882	Cultural Debris	Nail	1	6	Scrap Bin	
74	AB17	1/19/2007	AB17-00074	281172.2793	3846269.738	D - Scrap Metal	10.53487206	Cultural Debris	Scrap Metal	2	18	Scrap Bin	
75	AB17	1/19/2007	AB17-00075	281185.6347	3846264.169	F - Cultural, Other	10.2885294	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Railroad spike.
76	AB17	1/19/2007	AB17-00076	281185.0194	3846271.669	C - Nail	9.796476364	Cultural Debris	Nail	3	6	Scrap Bin	
77	AB17	1/19/2007	AB17-00077	281185.5311	3846261.579	D - Scrap Metal	9.768399239	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
78	AB17	1/19/2007	AB17-00078	281161.6593	3846259.789	E - Wire	9.402423859	Cultural Debris	Wire	1	24	Scrap Bin	
79	AB17	1/19/2007	AB17-00079	281161.3912	3846260.715	D - Scrap Metal	8.628854752	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
80	AB17	1/19/2007	AB17-00080	281183.3925	3846265.327	C - Nail	8.610399246	Cultural Debris	Nail	10	12	Scrap Bin	
81	AB17	1/19/2007	AB17-00081	281183.6119	3846266.996	D - Scrap Metal	8.493299484	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
82	AB17	1/19/2007	AB17-00082	281173.8696	3846275.167	E - Wire	8.492845535	Cultural Debris	Wire	1	12	Scrap Bin	
83	AB17	1/19/2007	AB17-00083	281174.1801	3846260.05	I - Under Road	8.406148911	Other	Under Road	0	0	No Action Required	
84	AB17	1/18/2007	AB17-00084	281156.6653	3846255.269	D - Scrap Metal	7.946696516	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
85	AB17	1/19/2007	AB17-00085	281184.9889	3846270.908	C - Nail	7.715500355	Cultural Debris	Nail	1	2	Scrap Bin	
86	AB17	1/19/2007	AB17-00086	281171.2191	3846266.119	C - Nail	7.405107975	Cultural Debris	Nail	3	12	Scrap Bin	
87	AB17	1/19/2007	AB17-00087	281169.6959	3846266.18	C - Nail	7.077847481	Cultural Debris	Nail	1	6	Scrap Bin	
88	AB17	1/19/2007	AB17-00088	281171.28	3846267.642	D - Scrap Metal	7.054566383	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
89	AB17	1/19/2007	AB17-00089	281172.6143	3846262.859	D - Scrap Metal	7.049660206	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
90	AB17	1/19/2007	AB17-00090	281176.0935	3846273.552	F - Cultural, Other	6.878243923	Cultural Debris	Cultural, Other	7	12	Scrap Bin	Bolts, Nails, Wire.
91	AB17	1/19/2007	AB17-00091	281173.7111	3846271.206	D - Scrap Metal	6.846282482	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
92	AB17	1/19/2007	AB17-00092	281171.591	3846279.224	F - Cultural, Other	6.643486023	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nail.
93	AB17	1/19/2007	AB17-00093	281174.5885	3846274.07	D - Scrap Metal	6.427557468	Cultural Debris	Scrap Metal	6	6	Scrap Bin	
94	AB17	1/19/2007	AB17-00094	281168.642	3846277.969	F - Cultural, Other	6.236158848	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Knife handle.
95	AB17	1/19/2007	AB17-00095	281160.1178	3846255.578	C - Nail	6.11661911	Cultural Debris	Nail	1	2	Scrap Bin	
96	AB17	1/19/2007	AB17-00096	281172.5107	3846260.27	I - Under Road	5.867053986	Other	Under Road	0	0	No Action Required	
97	AB17	1/19/2007	AB17-00097	281172.791	3846267.276	C - Nail	5.835883617	Cultural Debris	Nail	3	6	Scrap Bin	
98	AB17	1/19/2007	AB17-00098	281172.328	3846270.957	E - Wire	5.741430283	Cultural Debris	Wire	1	12	Scrap Bin	
99	AB17	1/19/2007	AB17-00099	281172.5594	3846261.488	I - Under Road	5.656754017	Other	Under Road	0	0	No Action Required	
100	AB17	1/19/2007	AB17-00100	281164.5658	3846271.42	E - Wire	5.521105289	Cultural Debris	Wire	2	12	Scrap Bin	
101	AB17	1/19/2007	AB17-00101	281170.8535	3846264.608	C - Nail	5.362895966	Cultural Debris	Nail	2	12	Scrap Bin	
102	AB17	1/19/2007	AB17-00102	281164.3222	3846280.583	C - Nail	5.230703354	Cultural Debris	Nail	1	6	Scrap Bin	
103	AB17	1/19/2007	AB17-00103	281175.2648	3846271.907	D - Scrap Metal	5.210546017	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
104	AB17	1/18/2007	AB17-00104	281179.4017	3846260.909	D - Scrap Metal	4.9085989	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
105	AB17	1/19/2007	AB17-00105	281169.4764	3846260.696	D - Scrap Metal	4.750647068	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
106	AB17	1/19/2007	AB17-00106	281169.5315	3846277.324	E - Wire	4.744260788	Cultural Debris	Wire	1	6	Scrap Bin	
107	AB17	1/19/2007	AB17-00107	281184.3126	3846269.256	C - Nail	4.601856232	Cultural Debris	Nail	2	6	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
108	AB17	1/19/2007	AB17-00108	281170.8594	3846257.132	I - Under Road	4.593938828	Other	Under Road	0	0	No Action Required	
109	AB17	1/19/2007	AB17-00109	281174.3874	3846269.043	D - Scrap Metal	4.565003395	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
110	AB17	1/19/2007	AB17-00110	281158.0694	3846282.806	I - Under Road	4.531716824	Other	Under Road	0	0	No Action Required	
111	AB17	1/19/2007	AB17-00111	281177.6959	3846275.471	I - Under Road	4.460159779	Other	Under Road	0	0	No Action Required	
112	AB17	1/19/2007	AB17-00112	281177.763	3846277.147	I - Under Road	4.369201183	Other	Under Road	0	0	No Action Required	
113	AB17	1/19/2007	AB17-00113	281175.935	3846269.592	I - Under Road	4.331415176	Other	Under Road	0	0	No Action Required	
114	AB17	1/19/2007	AB17-00114	281185.0378	3846275.94	C - Nail	4.306379318	Cultural Debris	Nail	3	6	Scrap Bin	
115	AB17	1/18/2007	AB17-00115	281181.132	3846258.399	D - Scrap Metal	4.264915466	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
116	AB17	1/19/2007	AB17-00116	281161.5191	3846256.285	C - Nail	4.193268299	Cultural Debris	Nail	4	6	Scrap Bin	
117	AB17	1/19/2007	AB17-00117	281184.4955	3846273.826	F - Cultural, Other	4.131483555	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Lugnut.
118	AB17	1/19/2007	AB17-00118	281187.249	3846268.695	H - No Contact	4.037810593	No Contact	N/A	0	0	No Action Required	
119	AB17	1/19/2007	AB17-00119	281175.9898	3846270.963	I - Under Road	4.035012245	Other	Under Road	0	0	No Action Required	
120	AB17	1/18/2007	AB17-00120	281178.4694	3846256.675	C - Nail	4.029322147	Cultural Debris	Nail	2	12	Scrap Bin	
121	AB17	1/19/2007	AB17-00121	281169.8055	3846265.107	F - Cultural, Other	3.888536453	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Wire, Nail.
122	AB17	1/19/2007	AB17-00122	281173.3088	3846261.153	I - Under Road	3.867878199	Other	Under Road	0	0	No Action Required	
123	AB17	1/19/2007	AB17-00123	281182.4542	3846260.94	C - Nail	3.805857897	Cultural Debris	Nail	3	6	Scrap Bin	
124	AB17	1/19/2007	AB17-00124	281170.3356	3846263.103	C - Nail	3.779922247	Cultural Debris	Nail	1	6	Scrap Bin	
125	AB17	1/19/2007	AB17-00125	281186.8473	3846275.41	D - Scrap Metal	3.654402018	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
126	AB17	1/19/2007	AB17-00126	281174.156	3846278.512	D - Scrap Metal	3.592592955	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
127	AB17	1/19/2007	AB17-00127	281165.4171	3846268.653	D - Scrap Metal	3.566325773	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
128	AB17	1/19/2007	AB17-00128	281187.3956	3846270.048	E - Wire	3.514813662	Cultural Debris	Wire	1	12	Scrap Bin	
129	AB17	1/19/2007	AB17-00129	281174.2472	3846265.54	I - Under Road	3.51403904	Other	Under Road	0	0	No Action Required	
130	AB17	1/19/2007	AB17-00130	281176.8185	3846272.608	I - Under Road	3.475102186	Other	Under Road	0	0	No Action Required	
131	AB17	1/19/2007	AB17-00131	281173.2174	3846258.868	I - Under Road	3.466095924	Other	Under Road	0	0	No Action Required	
132	AB17	1/19/2007	AB17-00132	281186.6949	3846271.602	D - Scrap Metal	3.465150833	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
133	AB17	1/19/2007	AB17-00133	281161.1662	3846281.778	I - Under Road	3.444620609	Other	Under Road	0	0	No Action Required	
134	AB17	1/18/2007	AB17-00134	281178.4328	3846255.761	D - Scrap Metal	3.408871651	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
135	AB17	1/19/2007	AB17-00135	281174.107	3846262.037	I - Under Road	3.408483505	Other	Under Road	0	0	No Action Required	
136	AB17	1/19/2007	AB17-00136	281165.3457	3846271.846	E - Wire	3.397026777	Cultural Debris	Wire	2	6	Scrap Bin	
137	AB17	1/19/2007	AB17-00137	281174.4544	3846270.719	D - Scrap Metal	3.380713701	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
138	AB17	1/19/2007	AB17-00138	281175.1734	3846269.622	D - Scrap Metal	3.269459009	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
139	AB17	1/19/2007	AB17-00139	281177.4582	3846269.531	I - Under Road	3.204188347	Other	Under Road	0	0	No Action Required	
140	AB17	1/18/2007	AB17-00140	281180.2425	3846262.859	C - Nail	3.181806326	Cultural Debris	Nail	3	6	Scrap Bin	
141	AB17	1/19/2007	AB17-00141	281171.6637	3846258.168	I - Under Road	3.109113455	Other	Under Road	0	0	No Action Required	
142	AB17	1/19/2007	AB17-00142	281182.5761	3846263.986	D - Scrap Metal	3.104717016	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
143	AB17	1/19/2007	AB17-00143	281173.1199	3846256.431	I - Under Road	3.081768036	Other	Under Road	0	0	No Action Required	
144	AB17	1/19/2007	AB17-00144	281174.3508	3846268.129	D - Scrap Metal	3.080760717	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
145	AB17	1/19/2007	AB17-00145	281173.4673	3846265.113	D - Scrap Metal	3.077767134	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
146	AB17	1/19/2007	AB17-00146	281181.0894	3846264.961	I - Under Road	3.056633472	Other	Under Road	0	0	No Action Required	
147	AB17	1/19/2007	AB17-00147	281173.79	3846254.116	I - Under Road	3.047557592	Other	Under Road	0	0	No Action Required	
148	AB17	1/19/2007	AB17-00148	281180.0112	3846276.141	I - Under Road	3.02867341	Other	Under Road	0	0	No Action Required	
149	AB17	1/19/2007	AB17-00149	281179.3267	3846275.445	I - Under Road	3.008004435	Other	Under Road	0	0	No Action Required	
150	AB17	1/19/2007	AB17-00150	281183.7204	3846270.836	E - Wire	3.006849438	Cultural Debris	Wire	2	6	Scrap Bin	
151	AB17	1/19/2007	AB17-00151	281172.5497	3846278.294	D - Scrap Metal	3	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
152	M15		M15-00001	281097.5605	3845826.771		1832.647461			0	0		
153	M15		M15-00002	281091.4919	3845818.294		1036.120023			0	0		
154	M15		M15-00003	281104.244	3845803.161		903.0044556			0	0		
155	M15		M15-00004	281095.0198	3845824.279		844.081604			0	0		
156	M15		M15-00005	281103.1839	3845807.17		788.1585693			0	0		
157	M15	1/24/2007	M15-00006	281102.87	3845818.693	F - Cultural, Other	744.3151376	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Fence post.
158	M15		M15-00007	281082.5294	3845820.965		731.6081543			0	0		
159	M15		M15-00008	281081.1278	3845801.187		729.2427368			0	0		
160	M15		M15-00009	281091.3333	3845804.593		656.2571411			0	0		
161	M15		M15-00010	281092.4118	3845808.669		652.2427368			0	0		
162	M15	1/24/2007	M15-00011	281107.0711	3845801.37	F - Cultural, Other	598.8696289	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Fence post in concrete.
163	M15		M15-00012	281079.6656	3845806.586		596.4554443			0	0		
164	M15		M15-00013	281100.2108	3845820.562		554.506897			0	0		
165	M15		M15-00014	281093.2163	3845821.147		543.5469971			0	0		
166	M15		M15-00015	281102.252	3845825.82		530.7805786			0	0		
167	M15		M15-00016	281104.025	3845824.376		528.6826782			0	0		
168	M15		M15-00017	281088.4516	3845820.27		520.2365112			0	0		
169	M15		M15-00018	281083.4521	3845799.774		466.5703329			0	0		
170	M15		M15-00019	281098.0601	3845824.005		459.7586975			0	0		
171	M15		M15-00020	281091.8272	3845828.373		421.4689941			0	0		
172	M15		M15-00021	281089.3629	3845829.767		416.2801131			0	0		
173	M15		M15-00022	281078.7885	3845822.793		381.9235229			0	0		
174	M15		M15-00023	281094.6235	3845810.564		361.6496887			0	0		
175	M15		M15-00024	281104.695	3845814.433		323.8927612			0	0		
176	M15		M15-00025	281089.6022	3845799.528		314.0622836			0	0		
177	M15		M15-00026	281089.8469	3845817.01		293.7521667			0	0		
178	M15	1/24/2007	M15-00027	281098.6669	3845799.035	F - Cultural, Other	264.2390807	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Fence post in concrete.
179	M15		M15-00028	281083.8863	3845804.156		236.3636892			0	0		
180	M15		M15-00029	281091.151	3845822.707		229.2135951			0	0		
181	M15		M15-00030	281106.9922	3845826.088		208.7073059			0	0		
182	M15		M15-00031	281082.5014	3845816.117		208.6537489			0	0		
183	M15		M15-00032	281077.2898	3845801.651		197.448494			0	0		
184	M15		M15-00033	281098.3402	3845811.941		192.4160004			0	0		
185	M15		M15-00034	281094.1939	3845828.254		180.2925981			0	0		
186	M15		M15-00035	281102.0946	3845810.959		179.8383608			0	0		
187	M15		M15-00036	281083.547	3845827.332		168.9294891			0	0		
188	M15		M15-00037	281102.2746	3845821.926		153.1121318			0	0		
189	M15		M15-00038	281083.1205	3845824.298		150.5688324			0	0		
190	M15		M15-00039	281088.3234	3845801.815		150.0846558			0	0		
191	M15		M15-00040	281081.4998	3845825.735		147.1410675			0	0		
192	M15		M15-00041	281099.8392	3845822.713		143.5079956			0	0		
193	M15		M15-00042	281102.287	3845813.824		142.2848699			0	0		
194	M15	1/24/2007	M15-00043	281087.5417	3845823.059	F - Cultural, Other	140.9867039	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Water valve.
195	M15		M15-00044	281085.6611	3845819.161		139.56073			0	0		
196	M15		M15-00045	281080.2447	3845824.87		121.7161255			0	0		
197	M15		M15-00046	281094.6114	3845814.074		120.760704			0	0		
198	M15		M15-00047	281080.3115	3845829.301		118.6092145			0	0		
199	M15		M15-00048	281078.6143	3845826.988		115.0511049			0	0		
200	M15		M15-00049	281106.7468	3845806.917		113.4411269			0	0		
201	M15		M15-00050	281081.2219	3845811.95		111.441705			0	0		

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
202	M15		M15-00051	281092.3198	3845825.404		109.642329			0	0		
203	M15		M15-00052	281102.7234	3845829.258		108.437033			0	0		
204	M15		M15-00053	281104.9265	3845808.779		100.105896			0	0		
205	M15	1/24/2007	M15-00054	281079.6413	3845813.605	F - Cultural, Other	99.82250977	Cultural Debris	Cultural, Other	2	18	Scrap Bin	Reinforced Concrete, Rebar.
206	M15		M15-00055	281078.1034	3845810.34		99.63317926			0	0		
207	M15		M15-00056	281081.9158	3845827.994		87.85476017			0	0		
208	M15		M15-00057	281096.8782	3845828.782		83.03329468			0	0		
209	M15	1/24/2007	M15-00058	281082.3648	3845809.224	D - Scrap Metal	81.71019745	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
210	M15		M15-00059	281077.4113	3845807.439		80.76921844			0	0		
211	M15	1/24/2007	M15-00060	281083.2397	3845830.038	F - Cultural, Other	75.17474864	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Fence post.
212	M15		M15-00061	281107.9399	3845821.207		73.01826649			0	0		
213	M15		M15-00062	281106.4793	3845822.87		70.15972744			0	0		
214	M15	1/24/2007	M15-00063	281089.0607	3845804.989	D - Scrap Metal	66.31199646	Cultural Debris	Scrap Metal	6	12	Scrap Bin	
215	M15		M15-00064	281099.0871	3845828.938		59.86515981			0	0		
216	M15	1/24/2007	M15-00065	281106.4377	3845819.856	F - Cultural, Other	58.79451752	Cultural Debris	Cultural, Other	5	6	Scrap Bin	cable left in place. Nails , Fencing removed. Aluminum tube removed.
217	M15	1/24/2007	M15-00066	281083.8027	3845814.659	F - Cultural, Other	56.13975906	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Reinforced concrete, Scrap metal.
218	M15	1/24/2007	M15-00067	281085.1555	3845825.589	F - Cultural, Other	54.69242859	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Metal rebar.
219	M15	1/24/2007	M15-00068	281077.7586	3845812.307	F - Cultural, Other	53.73975372	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe at 24 inches.
220	M15	1/24/2007	M15-00069	281087.44	3845806.427	F - Cultural, Other	52.53198624	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolts .
221	M15	1/24/2007	M15-00070	281085.1677	3845829.708	F - Cultural, Other	52.37647247	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Wire.
222	M15	1/24/2007	M15-00071	281094.4956	3845807.365	E - Wire	49.72160339	Cultural Debris	Wire	1	6	Scrap Bin	
223	M15	1/24/2007	M15-00072	281106.8702	3845815.414	F - Cultural, Other	49.63350296	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Banding, Nails .
224	M15	1/24/2007	M15-00073	281080.8295	3845816.608	F - Cultural, Other	48.12587738	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Rebar.
225	M15	1/24/2007	M15-00074	281078.9102	3845818.211	F - Cultural, Other	47.52481461	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Reinforced concrete, Nails.
226	M15	1/24/2007	M15-00075	281096.2382	3845816.602	F - Cultural, Other	43.99329376	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Metal banding.
227	M15	1/24/2007	M15-00076	281106.322	3845828.404	F - Cultural, Other	43.53702927	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts, Nail.
228	M15		M15-00077	281091.3701	3845820.764		40.12261963			0	0		
229	M15	1/24/2007	M15-00078	281107.5159	3845808.675	H - No Contact	39.30502701	No Contact	N/A	0	0	No Action Required	
230	M15	1/24/2007	M15-00079	281077.7108	3845814.756	F - Cultural, Other	38.41053231	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolt, Wire.
231	M15	1/24/2007	M15-00080	281085.4721	3845806.811	F - Cultural, Other	37.22249985	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts, Nut, Nail.
232	M15	1/24/2007	M15-00081	281090.5472	3845807.617	F - Cultural, Other	36.87725871	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Nail.
233	M15	1/24/2007	M15-00082	281100.6923	3845828.782	C - Nail	36.85209274	Cultural Debris	Nail	4	12	Scrap Bin	
234	M15	1/24/2007	M15-00083	281094.0751	3845804.483	C - Nail	33.82447433	Cultural Debris	Nail	3	6	Scrap Bin	
235	M15	1/24/2007	M15-00084	281089.3167	3845807.573	C - Nail	32.75670242	Cultural Debris	Nail	3	6	Scrap Bin	
236	M15	1/24/2007	M15-00085	281096.2688	3845821.178		32.73724747	QC Item	QC Item	2	24	Scrap Bin	Nail, CH2MHill QC item 22 returned.
237	M15	1/24/2007	M15-00086	281077.2785	3845805.249	C - Nail	32.17216439	Cultural Debris	Nail	1	4	Scrap Bin	
238	M15	1/24/2007	M15-00087	281078.8311	3845814.944	F - Cultural, Other	32.15554095	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Wire, Concrrete.
239	M15	1/24/2007	M15-00088	281084.4546	3845808.072	F - Cultural, Other	32.04977798	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Hose nozzle, Bolt, Wire strap.
240	M15	1/24/2007	M15-00089	281089.463	3845815.042	D - Scrap Metal	31.45238686	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
241	M15	1/24/2007	M15-00090	281086.3191	3845812.727	F - Cultural, Other	31.28036499	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Communication cable.
242	M15	1/24/2007	M15-00091	281088.9816	3845810.637	D - Scrap Metal	31.25790215	Cultural Debris	Scrap Metal	6	6	Scrap Bin	
243	M15	1/24/2007	M15-00092	281086.4957	3845809.516	F - Cultural, Other	30.88365555	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nail.
244	M15	1/24/2007	M15-00093	281106.9546	3845803.699	E - Wire	29.54925827	Cultural Debris	Wire	3	6	Scrap Bin	
245	M15	1/24/2007	M15-00094	281097.7492	3845816.236	F - Cultural, Other	26.81350899	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Nails, Wire, Bolts.
246	M15	1/24/2007	M15-00095	281103.105	3845828.075	C - Nail	26.57893372	Cultural Debris	Nail	3	12	Scrap Bin	
247	M15	1/24/2007	M15-00096	281091.4492	3845811.301	F - Cultural, Other	26.11568069	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Screw.
248	M15	1/24/2007	M15-00097	281097.024	3845801.924	F - Cultural, Other	25.0933094	Cultural Debris	Cultural, Other	25	12	Scrap Bin	23 pieces of scrap metal, Aluminum tube, Hair pin.
249	M15	1/24/2007	M15-00098	281096.9024	3845817.949	C - Nail	24.37647438	Cultural Debris	Nail	4	6	Scrap Bin	
250	M15	1/24/2007	M15-00099	281104.536	3845801.466	F - Cultural, Other	24.2398455	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Grill screen.
251	M15	1/24/2007	M15-00100	281094.2398	3845816.224	F - Cultural, Other	23.98359489	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nail.
252	M15	1/24/2007	M15-00101	281090.4758	3845810.363	F - Cultural, Other	23.54029007	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Screw
253	M15	1/24/2007	M15-00102	281084.9665	3845817.053	F - Cultural, Other	22.91571426	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Bolt.
254	M15	1/24/2007	M15-00103	281098.3281	3845819.265	C - Nail	22.45238304	Cultural Debris	Nail	1	2	Scrap Bin	
255	M15	1/24/2007	M15-00104	281104.7886	3845829.124	F - Cultural, Other	18.78568094	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Nails, Wirre.
256	M15	1/24/2007	M15-00105	281092.9966	3845800.407	F - Cultural, Other	18.68111229	Cultural Debris	Cultural, Other	3	18	Scrap Bin	Wrench, Nail.
257	M15	1/24/2007	M15-00106	281088.0149	3845826.482	E - Wire	18.12839202	Cultural Debris	Wire	1	2	Scrap Bin	
258	M15	1/24/2007	M15-00107	281098.2122	3845808.742	F - Cultural, Other	18.01599121	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Fence post in concrete removed. Nails.
259	M15	1/24/2007	M15-00108	281093.545	3845802.674	F - Cultural, Other	18.01256943	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Screw driver, Nail, Screw.
260	M15	1/24/2007	M15-00109	281095.9029	3845800.596	F - Cultural, Other	17.46628761	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Springs, Nail.
261	M15	1/24/2007	M15-00110	281085.5393	3845823.743	F - Cultural, Other	14.94508648	Cultural Debris	Cultural, Other	6	24	Scrap Bin	Wire, Nails.
262	M15	1/24/2007	M15-00111	281105.1592	3845798.931	C - Nail	14.82669592	Cultural Debris	Nail	4	12	Scrap Bin	
263	M15	1/24/2007	M15-00112	281087.9948	3845827.917	E - Wire	14.33116436	Cultural Debris	Wire	2	2	Scrap Bin	
264	M15	1/24/2007	M15-00113	281089.7251	3845825.406	F - Cultural, Other	14.32636929	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Wire, Nails.
265	M15	1/24/2007	M15-00114	281088.1998	3845824.637	C - Nail	13.04661128	Cultural Debris	Nail	3	12	Scrap Bin	
266	M15	1/24/2007	M15-00115	281089.0305	3845823.298	F - Cultural, Other	12.73405933	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nails, Screws.
267	M15	1/24/2007	M15-00116	281086.9893	3845814.226	F - Cultural, Other	11.46698093	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Banding wire extends below 2 ft.
268	M15	1/24/2007	M15-00117	281100.7222	3845826.465	D - Scrap Metal	11.31192744	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
269	M15	1/24/2007	M15-00118	281100.9847	3845824.651	C - Nail	11.25121498	Cultural Debris	Nail	1	6	Scrap Bin	
270	M15	1/24/2007	M15-00119	281103.2082	3845800.151	E - Wire	10.2245121	Cultural Debris	Wire	1	6	Scrap Bin	Communication cable.
271	M15	1/24/2007	M15-00120	281102.6382	3845801.258	H - No Contact	8.742289774	No Contact	N/A	0	0	No Action Required	
272	M15	1/24/2007	M15-00121	281086.0935	3845828.914	F - Cultural, Other	8.68687544	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Rebar.
273	M15	1/24/2007	M15-00122	281086.8635	3845826.166	E - Wire	8.616880756	Cultural Debris	Wire	3	6	Scrap Bin	Wire.
274	M15	1/24/2007	M15-00123	281096.025	3845818.899	C - Nail	6.608573914	Cultural Debris	Nail	1	4	Scrap Bin	
275	M15	1/24/2007	M15-00124	281101.2852	3845798.906	C - Nail	3.926767411	Cultural Debris	Nail	2	10	Scrap Bin	
276	M15	1/24/2007	M15-00125	281078.0877	3845820.532	C - Nail	3.894701004	Cultural Debris	Nail	3	6	Scrap Bin	
277	M15	1/24/2007	M15-00126	281099.7721	3845817.224	F - Cultural, Other	3.471275091	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Wire, Nails .
278	M15	1/24/2007	M15-00127	281094.8732	3845801.553	F - Cultural, Other	3.175318956	Cultural Debris	Cultural, Other	3	12	Scrap Bin	
279	O23		O23-00001	281339.5192	3845853.247		1194.17334			0	0		
280	O23	1/12/2007	O23-00002	281349.2738	3845856.823	F - Cultural, Other	998.9629517	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Sign post.
281	O23		O23-00003	281336.3996	3845851.541		924.8064575			0	0		
282	O23	1/12/2007	O23-00004	281353.0026	3845854.691	F - Cultural, Other	796.8983765	Cultural Debris	Cultural, Other	11	0	Scrap Bin	Sign post.
283	O23		O23-00005	281337.8619	3845853.771		620.2663574			0	0		
284	O23		O23-00006	281331.6902	3845874.919		524.7449951			0	0		
285	O23		O23-00007	281335.5592	3845880.104		480.4822388			0	0		
286	O23		O23-00008	281324.1739	3845873.925		299.3051542			0	0		
287	O23		O23-00009	281352.0536	3845872.501		280.7810321			0	0		
288	O23		O23-00010	281324.0205	3845860.034		240.7562958			0	0		
289	O23	1/11/2007	O23-00011	281340.4757	3845850.462	F - Cultural, Other	164.3476715	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Metal cable tie down.
290	O23		O23-00012	281327.4961	3845866.429		161.8469613			0	0		
291	O23		O23-00013	281354.0689	3845858.462		159.2547607			0	0		
292	O23		O23-00014	281331.648	3845880.255		135.0247235			0	0		
293	O23		O23-00015	281351.3492	3845879.75		132.4963694			0	0		

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
294	O23	1/12/2007	O23-00016	281332.9147	3845863.58	I - Under Road	125.4282455	Other	Under Road	0	0	No Action Required	
295	O23	1/11/2007	O23-00017	281353.5982	3845850.161	F - Cultural, Other	110.7897706	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Metal plpe.
296	O23	1/11/2007	O23-00018	281348.4695	3845851.973	F - Cultural, Other	85.32274628	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
297	O23	1/16/2007	O23-00019	281346.9646	3845852.491	F - Cultural, Other	81.84555817	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
298	O23	1/12/2007	O23-00020	281332.1043	3845862.392	I - Under Road	69.5728302	Other	Under Road	0	0	No Action Required	
299	O23		O23-00021	281336.241	3845869.606		63.15226839			0	0		
300	O23		O23-00022	281323.4829	3845852.821		59.13393021			0	0		
301	O23		O23-00023	281327.4441	3845850.924		57.21890196			0	0		
302	O23		O23-00024	281325.2802	3845851.986		55.23998261			0	0		
303	O23	1/12/2007	O23-00025	281345.6852	3845858.645	D - Scrap Metal	49.51591873	Cultural Debris	Scrap Metal	5	6	Scrap Bin	4 - nails, 1-wire.
304	O23	1/12/2007	O23-00026	281342.5843	3845880.281	C - Nail	44.2657547	Cultural Debris	Nail	5	12	Scrap Bin	
305	O23	1/12/2007	O23-00027	281346.2399	3845880.134	D - Scrap Metal	43.7574501	Cultural Debris	Scrap Metal	8	12	Scrap Bin	Pipes , Nails, Wiree.
306	O23	1/11/2007	O23-00028	281332.2566	3845854.758	I - Under Road	43.36983109	Other	Under Road	0	0	No Action Required	
307	O23		O23-00029	281338.4836	3845869.308		42.49940109			0	0		
308	O23	1/12/2007	O23-00030	281327.7723	3845860.887	D - Scrap Metal	39.78091812	Cultural Debris	Scrap Metal	3	12	Scrap Bin	Bolts, pipe end.
309	O23	1/12/2007	O23-00031	281340.3542	3845874.115	D - Scrap Metal	38.05624771	Cultural Debris	Scrap Metal	3	20	Scrap Bin	nails, towing hook.
310	O23	1/12/2007	O23-00032	281338.3557	3845873.737	C - Nail	37.53292847	Cultural Debris	Nail	2	6	Scrap Bin	
311	O23	1/12/2007	O23-00033	281347.7827	3845862.208	F - Cultural, Other	37.27680168	Cultural Debris	Cultural, Other	3	12	Scrap Bin	1- Bottle cap, Pipe 6 inch long, nail.
312	O23	1/11/2007	O23-00034	281338.9954	3845866.846	C - Nail	37.08551788	Cultural Debris	Nail	1	6	Scrap Bin	
313	O23	1/12/2007	O23-00035	281341.8169	3845876.415	C - Nail	37.0193382	Cultural Debris	Nail	8	6	Scrap Bin	
314	O23	1/12/2007	O23-00036	281325.5548	3845877.911	C - Nail	36.82332611	Cultural Debris	Nail	3	6	Scrap Bin	
315	O23	1/12/2007	O23-00037	281328.9361	3845863.282	D - Scrap Metal	36.50770187	Cultural Debris	Scrap Metal	5	4	Scrap Bin	Nnais, wire.
316	O23		O23-00038	281343.8524	3845860.424		35.18677454			0	0		
317	O23	1/12/2007	O23-00039	281347.0938	3845879.305	E - Wire	34.85396165	Cultural Debris	Wire	1	2	Scrap Bin	12 inches long.
318	O23	1/12/2007	O23-00040	281335.5529	3845864.695	I - Under Road	34.20715714	Other	Under Road	0	0	No Action Required	
319	O23		O23-00041	281337.4902	3845869.462		33.91889641			0	0		
320	O23	1/11/2007	O23-00042	281332.9505	3845850.68	F - Cultural, Other	32.65932275	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Wire, metal pipe.
321	O23	1/12/2007	O23-00043	281336.8996	3845875.474	G - Below 2 ft	30.81464195	Other	Below 2 ft	0	0	No Action Required	
322	O23	1/12/2007	O23-00044	281345.1246	3845856.074	D - Scrap Metal	27.73961639	Cultural Debris	Scrap Metal	3	6	Scrap Bin	screw, nail, wire.
323	O23	1/12/2007	O23-00045	281335.7541	3845873.536	C - Nail	26.76120949	Cultural Debris	Nail	4	6	Scrap Bin	
324	O23	1/12/2007	O23-00046	281343.2238	3845865.762	C - Nail	23.41338158	Cultural Debris	Nail	2	2	Scrap Bin	
325	O23	1/12/2007	O23-00047	281345.6794	3845877.563	D - Scrap Metal	23.08857536	Cultural Debris	Scrap Metal	1	6	Scrap Bin	1 - 6 inch bolt.
326	O23	1/12/2007	O23-00048	281339.483	3845879.032	C - Nail	21.53853035	Cultural Debris	Nail	1	6	Scrap Bin	
327	O23	1/12/2007	O23-00049	281335.3212	3845872.058	D - Scrap Metal	20.57749548	Cultural Debris	Scrap Metal	2	12	Scrap Bin	Bolts
328	O23	1/12/2007	O23-00050	281354.2396	3845866.541	D - Scrap Metal	19.96246529	Cultural Debris	Scrap Metal	2	4	Scrap Bin	1 - naiil, 1 cChuck key.
329	O23	1/12/2007	O23-00051	281344.211	3845878.995	D - Scrap Metal	18.68040848	Cultural Debris	Scrap Metal	3	6	Scrap Bin	6 inch bolt., 2 nails.
330	O23	1/12/2007	O23-00052	281339.3092	3845875.284	D - Scrap Metal	18.46632735	Cultural Debris	Scrap Metal	6	20	Scrap Bin	bolts, nails, pieces of pipe.
331	O23	1/12/2007	O23-00053	281344.7505	3845876.96	D - Scrap Metal	18.28953761	Cultural Debris	Scrap Metal	3	10	Scrap Bin	nail, nut, metal ring.
332	O23	1/16/2007	O23-00054	281350.2553	3845874.893	C - Nail	18.04318637	Cultural Debris	Nail	1	3	Scrap Bin	6 inches long.
333	O23	1/12/2007	O23-00055	281353.8682	3845880.134	C - Nail	17.26639557	Cultural Debris	Nail	2	4	Scrap Bin	
334	O23	1/12/2007	O23-00056	281343.7175	3845878.099	E - Wire	16.78492546	Cultural Debris	Wire	1	6	Scrap Bin	
335	O23	1/11/2007	O23-00057	281338.0447	3845850.712	D - Scrap Metal	16.72764015	Cultural Debris	Scrap Metal	6	6	Scrap Bin	4 screws, 1 bolt, 1 metal chunk
336	O23	1/12/2007	O23-00058	281345.9533	3845857.719	C - Nail	16.53523064	Cultural Debris	Nail	2	2	Scrap Bin	
337	O23	1/16/2007	O23-00059	281342.7608	3845869.442	C - Nail	15.85559559	Cultural Debris	Nail	1	2	Scrap Bin	
338	O23	1/12/2007	O23-00060	281334.1211	3845859.819	I - Under Road	15.73389777	Other	Under Road	0	0	No Action Required	
339	O23		O23-00061	281349.2434	3845859.876		15.5512886			0	0		
340	O23	1/16/2007	O23-00062	281349.2009	3845870.252	C - Nail	14.84043694	Cultural Debris	Nail	6	2	Scrap Bin	
341	O23	1/11/2007	O23-00063	281333.1034	3845853.046	E - Wire	14.69745159	Cultural Debris	Wire	3	4	Scrap Bin	Short lengths
342	O23		O23-00064	281350.8032	3845860.729		14.5984745			0	0		
343	O23	1/12/2007	O23-00065	281346.7682	3845862.888	C - Nail	14.50641026	Cultural Debris	Nail	2	12	Scrap Bin	
344	O23	1/12/2007	O23-00066	281340.8661	3845879.282	C - Nail	14.1315794	Cultural Debris	Nail	2	18	Scrap Bin	
345	O23	1/11/2007	O23-00067	281349.6328	3845851.054	C - Nail	13.95467996	Cultural Debris	Nail	3	6	Scrap Bin	
346	O23	1/12/2007	O23-00068	281337.3565	3845871.641	C - Nail	13.85211849	Cultural Debris	Nail	1	6	Scrap Bin	
347	O23	1/12/2007	O23-00069	281353.661	3845878.77	H - No Contact	12.96366787	No Contact	N/A	0	0	No Action Required	
348	O23		O23-00070	281346.6952	3845860.476		12.7561238			0	0		
349	O23		O23-00071	281327.541	3845874.17		12.69229889			0	0		
350	O23	1/16/2007	O23-00072	281340.348	3845870.148	C - Nail	12.58547115	Cultural Debris	Nail	2	6	Scrap Bin	
351	O23	1/12/2007	O23-00073	281342.0298	3845877.862	F - Cultural, Other	12.5015707	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Metal ring, vehicle signal light.
352	O23	1/12/2007	O23-00074	281331.8627	3845867.272	I - Under Road	11.83703871	Other	Under Road	0	0	No Action Required	
353	O23	1/12/2007	O23-00075	281344.3144	3845862.514	C - Nail	11.80506992	Cultural Debris	Nail	4	6	Scrap Bin	
354	O23	1/16/2007	O23-00076	281342.2705	3845872.372	E - Wire	10.8018029	Cultural Debris	Wire	1	6	Scrap Bin	
355	O23	1/12/2007	O23-00077	281345.6062	3845875.735	C - Nail	10.49418926	Cultural Debris	Nail	3	8	Scrap Bin	
356	O23		O23-00078	281327.0594	3845854.508		10.27012444			0	0		
357	O23		O23-00079	281352.1192	3845859.303		10.14023972			0	0		
358	O23	1/16/2007	O23-00080	281345.3746	3845866.133	C - Nail	10.04282093	Cultural Debris	Nail	4	6	Scrap Bin	
359	O23	1/12/2007	O23-00081	281335.1568	3845862.423	I - Under Road	9.6933918	Other	Under Road	0	0	No Action Required	
360	O23	1/12/2007	O23-00082	281351.3272	3845866.2	D - Scrap Metal	8.81648922	Cultural Debris	Scrap Metal	6	2	Scrap Bin	Wire, small metal pieces.
361	O23	1/11/2007	O23-00083	281351.625	3845849.956	F - Cultural, Other	8.668777677	Cultural Debris	Cultural, Other	6	6	Scrap Bin	5 nails, 1 - 6 inch wrench.
362	O23		O23-00084	281328.0342	3845855.995		8.551773071			0	0		
363	O23	1/16/2007	O23-00085	281340.9025	3845872.567	D - Scrap Metal	8.470852852	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
364	O23	1/12/2007	O23-00086	281343.1444	3845856.153	C - Nail	8.348611832	Cultural Debris	Nail	1	4	Scrap Bin	
365	O23	1/12/2007	O23-00087	281330.7478	3845863.645	I - Under Road	8.052801794	Other	Under Road	0	0	No Action Required	
366	O23	1/11/2007	O23-00088	281344.2559	3845864.598	D - Scrap Metal	7.996159309	Cultural Debris	Scrap Metal	1	1	Scrap Bin	
367	O23		O23-00089	281328.997	3845860.991		7.96842289			0	0		
368	O23	1/12/2007	O23-00090	281342.8813	3845866.926	D - Scrap Metal	7.958646122	Cultural Debris	Scrap Metal	2	4	Scrap Bin	2 - 8 inch spikes.
369	O23	1/12/2007	O23-00091	281341.6701	3845865.061	D - Scrap Metal	7.893592834	Cultural Debris	Scrap Metal	4	6	Scrap Bin	3 - nails, 1 wire connecter.
370	O23		O23-00092	281328.8324	3845856.878		7.778418541			0	0		
371	O23	1/11/2007	O23-00093	281351.2052	3845851.711	F - Cultural, Other	7.720407963	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Belt clip, 2 bolts, 1 nail.
372	O23		O23-00094	281329.44	3845858.207		7.535517936			0	0		
373	O23		O23-00095	281329.7151	3845859.758		7.490800663			0	0		
374	O23	1/11/2007	O23-00096	281344.1436	3845850.621	C - Nail	7.416511536	Cultural Debris	Nail	5	6	Scrap Bin	2 naiils, 3 screws.
375	O23	1/11/2007	O23-00097	281340.2383	3845867.407	D - Scrap Metal	7.091692925	Cultural Debris	Scrap Metal	1	12	Scrap Bin	6 inch long bolt.
376	O23	1/12/2007	O23-00098	281352.9296	3845864.305	E - Wire	7.073153496	Cultural Debris	Wire	2	2	Scrap Bin	Short pieces .
377	O23	1/11/2007	O23-00099	281334.456	3845852.534	C - Nail	6.947903633	Cultural Debris	Nail	1	12	Scrap Bin	
378	O23	1/12/2007	O23-00100	281332.8656	3845859.798	I - Under Road	6.610912568	Other	Under Road	0	0	No Action Required	
379	O23	1/11/2007	O23-00101	281349.9402	3845864.211	F - Cultural, Other	6.106992448	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Numerous pieces of magnets.
380	O23	1/12/2007	O23-00102	281332.9696	3845864.951	I - Under Road	6.095524311	Other	Under Road	0	0	No Action Required	
381	O23	1/12/2007	O23-00103	281344.1254	3845857.792	D - Scrap Metal	5.910401821	Cultural Debris	Scrap Metal	6	4	Scrap Bin	3 - nails, 3 - screws.
382	O23	1/12/2007	O23-00104	281350.1941	3845876.01	D - Scrap Metal	5.732540607	Cultural Debris	Scrap Metal	1	2	Scrap Bin	1 x 4 inch.
383	O23	1/16/2007	O23-00105	281344.5104	3845867.405	F - Cultural, Other	5.66348754	Cultural Debris	Cultural, Other	1	6	Scrap Bin	6 inch wrench.
384	O23	1/11/2007	O23-00106	281341.8405	3845854.069	E - Wire	5.638932705	Cultural Debris	Wire	1	6	Scrap Bin	
385	O23	1/12/2007	O23-00107	281354.1759	3845864.012	F - Cultural, Other	5.634458846	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Small magnets.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
386	O23	1/12/2007	O23-00108	281346.3029	3845869.606	C - Nail	5.43090897	Cultural Debris	Nail	3	12	Scrap Bin	
387	O23	1/12/2007	O23-00109	281335.1081	3845861.204	I - Under Road	5.312355518	Other	Under Road	0	0	No Action Required	
388	O23	1/12/2007	O23-00110	281345.2099	3845854.392	D - Scrap Metal	5.168375969	Cultural Debris	Scrap Metal	4	12	Scrap Bin	1 bolt, 3 nails.
389	O23	1/11/2007	O23-00111	281340.8964	3845868.601	C - Nail	5.057198524	Cultural Debris	Nail	3	6	Scrap Bin	
390	O23	1/12/2007	O23-00112	281326.7003	3845879.848	H - No Contact	4.818882465	No Contact	N/A	0	0	No Action Required	
391	O23	1/12/2007	O23-00113	281346.4827	3845867.587	D - Scrap Metal	4.51405437	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
392	O23	1/12/2007	O23-00114	281347.3289	3845866.843	C - Nail	4.442756102	Cultural Debris	Nail	3	6	Scrap Bin	
393	O23	1/12/2007	O23-00115	281346.2702	3845865.64	C - Nail	4.319734573	Cultural Debris	Nail	4	12	Scrap Bin	
394	O23	1/12/2007	O23-00116	281351.5528	3845875.65	C - Nail	4.220680714	Cultural Debris	Nail	3	6	Scrap Bin	
395	O23	1/12/2007	O23-00117	281332.6587	3845857.183	I - Under Road	4.119257927	Other	Under Road	0	0	No Action Required	
396	O23	1/11/2007	O23-00118	281332.9329	3845856.409	I - Under Road	4.119034767	Other	Under Road	0	0	No Action Required	
397	O23	1/11/2007	O23-00119	281347.5191	3845858.724	F - Cultural, Other	4.065286636	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Grounding rod
398	O23	1/12/2007	O23-00120	281345.7462	3845863.982	D - Scrap Metal	3.729736567	Cultural Debris	Scrap Metal	2	6	Scrap Bin	Pipe, bolt.
399	O23	1/12/2007	O23-00121	281343.9791	3845854.136	F - Cultural, Other	3.716602325	Cultural Debris	Cultural, Other	4	18	Scrap Bin	Reinforced concrete, 3 nails.
400	O23	1/12/2007	O23-00122	281329.1858	3845854.271	I - Under Road	3.551366091	Other	Under Road	0	0	No Action Required	
401	O23	1/12/2007	O23-00123	281327.206	3845881.049	H - No Contact	3.536948204	No Contact	N/A	0	0	No Action Required	
402	O23	1/12/2007	O23-00124	281332.348	3845860.857	I - Under Road	3.473715067	Other	Under Road	0	0	No Action Required	
403	O23	1/12/2007	O23-00125	281353.7097	3845876.174	F - Cultural, Other	3.178002834	Cultural Debris	Cultural, Other	4	6	Scrap Bin	4 pieces of magnets.
404	O23	1/12/2007	O23-00126	281353.7033	3845853.137	E - Wire	3.120384932	Cultural Debris	Wire	3	6	Scrap Bin	6 inches long.
405	O23	1/12/2007	O23-00127	281346.971	3845875.528	D - Scrap Metal	3.053605318	Cultural Debris	Scrap Metal	1	6	Scrap Bin	1 x 3 inches.
406	O23	1/11/2007	O23-00128	281344.5518	3845853.198	D - Scrap Metal	3	Cultural Debris	Scrap Metal	3	6	Scrap Bin	1 bolt, 2 nails.
407	L17		L17-00001	281160.4316	3845769.942		1600.031372			0	0		
408	L17		L17-00002	281145.3275	3845773.751		1236.722534			0	0		
409	L17		L17-00003	281165.4462	3845784.693		1226.9198			0	0		
410	L17		L17-00004	281160.383	3845776.352		997.1663208			0	0		
411	L17		L17-00005	281165.4703	3845766.232		949.2888794			0	0		
412	L17		L17-00006	281149.4377	3845784.847		945.1684669			0	0		
413	L17		L17-00007	281142.6583	3845775.245		920.3920914			0	0		
414	L17		L17-00008	281148.2644	3845778.515		879.8495483			0	0		
415	L17		L17-00009	281143.3047	3845772.764		816.1398926			0	0		
416	L17		L17-00010	281146.0344	3845779.977		809.5299683			0	0		
417	L17		L17-00011	281155.8316	3845773.178		782.4940186			0	0		
418	L17		L17-00012	281150.9027	3845787.258		759.902832			0	0		
419	L17		L17-00013	281147.6551	3845782.354		718.9516602			0	0		
420	L17		L17-00014	281153.1568	3845774.963		695.7626343			0	0		
421	L17		L17-00015	281150.7868	3845776.736		689.8515015			0	0		
422	L17		L17-00016	281158.0816	3845771.676		656.7679387			0	0		
423	L17		L17-00017	281158.2403	3845789.695		616.3366591			0	0		
424	L17		L17-00018	281163.7998	3845767.933		501.2133279			0	0		
425	L17		L17-00019	281160.4075	3845788.404		475.2061157			0	0		
426	L17		L17-00020	281164.2908	3845775.82		356.7947022			0	0		
427	L17		L17-00021	281162.7653	3845778.698		320.6510925			0	0		
428	L17		L17-00022	281162.5427	3845786.572		237.1908932			0	0		
429	L17		L17-00023	281144.0725	3845780.514		236.0917053			0	0		
430	L17		L17-00024	281155.1614	3845779.307		231.5727386			0	0		
431	L17		L17-00025	281140.8271	3845771.629		218.5567272			0	0		
432	L17		L17-00026	281140.0612	3845796.396		207.9393257			0	0		
433	L17		L17-00027	281166.3634	3845772.293		205.8466272			0	0		
434	L17		L17-00028	281157.0016	3845787.167		196.619812			0	0		
435	L17		L17-00029	281140.758	3845781.562		183.6476593			0	0		
436	L17		L17-00030	281156.4289	3845791.919		182.9103394			0	0		
437	L17		L17-00031	281166.5735	3845793.802		164.1651611			0	0		
438	L17		L17-00032	281142.6155	3845790.555		161.8267971			0	0		
439	L17		L17-00033	281142.9148	3845778.271		143.7761078			0	0		
440	L17		L17-00034	281147.5148	3845771.222		135.4721375			0	0		
441	L17		L17-00035	281155.8391	3845783.256		121.986895			0	0		
442	L17		L17-00036	281141.1237	3845786.887		114.7890625			0	0		
443	L17		L17-00037	281137.3736	3845773.137		111.1436565			0	0		
444	L17		L17-00038	281150.6591	3845796.422		107.6035233			0	0		
445	L17		L17-00039	281151.5728	3845781.129		101.9389954			0	0		
446	L17		L17-00040	281149.1358	3845792.669		100.4697647			0	0		
447	L17		L17-00041	281164.0272	3845783.279		96.31257835			0	0		
448	L17		L17-00042	281168.2401	3845795.479		94.56891303			0	0		
449	L17		L17-00043	281149.3731	3845768.096		92.41197968			0	0		
450	L17		L17-00044	281167.7445	3845782.217		91.99638402			0	0		
451	L17		L17-00045	281145.0089	3845784.813		90.77355122			0	0		
452	L17		L17-00046	281141.2087	3845769.949		89.30210114			0	0		
453	L17		L17-00047	281140.5816	3845789.207		87.32607271			0	0		
454	L17	1/23/2007	L17-00048	281157.7446	3845767.609	F - Cultural, Other	85.3947525	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts , Nail.
455	L17		L17-00049	281163.2232	3845781.625		85.14968201			0	0		
456	L17	1/24/2007	L17-00050	281137.3399	3845781.08	I - Under Road	76.62211927	Other	Under Road	0	0	No Action Required	
457	L17		L17-00051	281138.1808	3845788.917		74.89127288			0	0		
458	L17		L17-00052	281146.8482	3845766.679		73.08198589			0	0		
459	L17	1/24/2007	L17-00053	281154.0101	3845792.474	F - Cultural, Other	72.59486389	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
460	L17		L17-00054	281144.1759	3845767.847		71.83906555			0	0		
461	L17		L17-00055	281151.7252	3845788.751		66.08054352			0	0		
462	L17		L17-00056	281140.4655	3845774.25		64.30167389			0	0		
463	L17		L17-00057	281152.9253	3845776.803		60.34106064			0	0		
464	L17		L17-00058	281154.5818	3845786.082		59.97722474			0	0		
465	L17		L17-00059	281140.7653	3845777.991		58.22138367			0	0		
466	L17	1/24/2007	L17-00060	281160.6694	3845783.511	F - Cultural, Other	58.15020752	Cultural Debris	Cultural, Other	1	6	Scrap Bin	15 inch rebar.
467	L17		L17-00061	281145.9612	3845770.521		55.80418777			0	0		
468	L17	1/23/2007	L17-00062	281168.0784	3845789.47	F - Cultural, Other	53.24946594	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Nails.
469	L17	1/24/2007	L17-00063	281151.367	3845771.593	F - Cultural, Other	51.53990638	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Rebar, Wrench.
470	L17	1/23/2007	L17-00064	281156.5748	3845768.876	F - Cultural, Other	48.38271332	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Wire ,Screws.
471	L17	1/24/2007	L17-00065	281142.6897	3845795.52	I - Under Road	48.08405685	Other	Under Road	0	0	No Action Required	
472	L17		L17-00066	281142.8477	3845768.968		44.86758804			0	0		
473	L17	1/24/2007	L17-00067	281153.0351	3845783.359	C - Nail	44.11981201	Cultural Debris	Nail	2	6	Scrap Bin	
474	L17	1/24/2007	L17-00068	281139.3734	3845779.724	D - Scrap Metal	42.78698958	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
475	L17		L17-00069	281138.3512	3845770.978		42.67567062			0	0		
476	L17	1/24/2007	L17-00070	281155.9964	3845796.361	D - Scrap Metal	42.44371033	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
477	L17	1/24/2007	L17-00071	281162.1721	3845790.487	D - Scrap Metal	42.08160415	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
478	L17		L17-00072	281140.9549	3845784.484		39.64697124			0	0		
479	L17	1/24/2007	L17-00073	281148.7667	3845773.349	H - No Contact	38.53967806	No Contact	N/A	0	0	No Action Required	
480	L17	1/24/2007	L17-00074	281159.9748	3845781.403	F - Cultural, Other	35.30142212	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Cable left in place, Nails.
481	L17	1/24/2007	L17-00075	281152.3224	3845796.05	E - Wire	33.97943497	Cultural Debris	Wire	1	2	Scrap Bin	
482	L17	1/24/2007	L17-00076	281149.7376	3845772.15	F - Cultural, Other	33.83446917	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Metal Rebar.
483	L17	1/24/2007	L17-00077	281160.834	3845791.438	D - Scrap Metal	33.4687767	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
484	L17	1/24/2007	L17-00078	281150.9695	3845773.677	F - Cultural, Other	32.27328491	Cultural Debris	Cultural, Other	3	18	Scrap Bin	Metal rebar.
485	L17	1/24/2007	L17-00079	281149.3733	3845779.539	D - Scrap Metal	31.53850937	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
486	L17	1/24/2007	L17-00080	281154.918	3845796.099	C - Nail	31.43485641	Cultural Debris	Nail	3	6	Scrap Bin	
487	L17	1/23/2007	L17-00081	281165.227	3845790.652	F - Cultural, Other	30.83171654	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Spike.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
488	L17	1/24/2007	L17-00082	281162.9909	3845791.962	C - Nail	30.58414078	Cultural Debris	Nail	3	6	Scrap Bin	
489	L17	1/23/2007	L17-00083	281167.8106	3845784.744	F - Cultural, Other	30.17315211	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolts . Grounding rod found 36 inches from flag.
490	L17	1/23/2007	L17-00084	281152.1088	3845767.834	F - Cultural, Other	29.8053627	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolts, Naail.
491	L17	1/24/2007	L17-00085	281141.9585	3845796.312	I - Under Road	29.21497345	Other	Under Road	0	0	No Action Required	
492	L17	1/23/2007	L17-00086	281164.9649	3845787.916	F - Cultural, Other	28.86746788	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Fence wire.
493	L17	1/23/2007	L17-00087	281150.8841	3845767.731	D - Scrap Metal	28.60469627	Cultural Debris	Scrap Metal	6	6	Scrap Bin	
494	L17	1/23/2007	L17-00088	281166.3968	3845789.384	F - Cultural, Other	28.44735146	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Nails , Washer.
495	L17	1/24/2007	L17-00089	281155.728	3845770.588	C - Nail	27.40875626	Cultural Debris	Nail	5	6	Scrap Bin	
496	L17	1/23/2007	L17-00090	281155.4415	3845767.243	C - Nail	27.1412735	Cultural Debris	Nail	2	12	Scrap Bin	
497	L17	1/24/2007	L17-00091	281148.0391	3845788.136	C - Nail	26.03082848	Cultural Debris	Nail	50	12	Scrap Bin	
498	L17	1/23/2007	L17-00092	281139.2773	3845767.432	F - Cultural, Other	23.99471664	Cultural Debris	Cultural, Other	4	24	Scrap Bin	Bolts.
499	L17	1/24/2007	L17-00093	281139.0367	3845782.206	I - Under Road	23.64965049	Other	Under Road	0	0	No Action Required	
500	L17	1/24/2007	L17-00094	281160.1502	3845792.641	C - Nail	23.2725663	Cultural Debris	Nail	7	12	Scrap Bin	
501	L17	1/24/2007	L17-00095	281154.4972	3845770.332	C - Nail	22.72146797	Cultural Debris	Nail	6	6	Scrap Bin	
502	L17	1/24/2007	L17-00096	281144.158	3845794.088	I - Under Road	21.71241188	Other	Under Road	0	0	No Action Required	
503	L17	1/24/2007	L17-00097	281151.6195	3845784.935	F - Cultural, Other	21.46001557	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Screwdriver.
504	L17	1/24/2007	L17-00098	281144.7122	3845777.437	H - No Contact	21.15275574	No Contact	N/A	0	0	No Action Required	
505	L17	1/23/2007	L17-00099	281153.2062	3845766.291	C - Nail	20.27421023	Cultural Debris	Nail	7	12	Scrap Bin	
506	L17	1/24/2007	L17-00100	281159.422	3845793.759	C - Nail	20.25530605	Cultural Debris	Nail	6	24	Scrap Bin	
507	L17	1/23/2007	L17-00101	281158.5611	3845768.949	F - Cultural, Other	20.24010658	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Screws.
508	L17	1/23/2007	L17-00102	281153.0654	3845768.864	F - Cultural, Other	20.07945442	Cultural Debris	Cultural, Other	7	12	Scrap Bin	Bolts, Screws.
509	L17	1/24/2007	L17-00103	281140.0819	3845795.167	I - Under Road	19.91421127	Other	Under Road	0	0	No Action Required	
510	L17	1/24/2007	L17-00104	281147.5981	3845789.805	C - Nail	18.58827013	Cultural Debris	Nail	2	12	Scrap Bin	
511	L17	1/24/2007	L17-00105	281145.7119	3845776.036	H - No Contact	18.42095244	No Contact	N/A	0	0	No Action Required	
512	L17	1/23/2007	L17-00106	281143.0671	3845770.637	F - Cultural, Other	18.06547165	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Magnet, Nails .
513	L17	1/24/2007	L17-00107	281164.1546	3845786.728	F - Cultural, Other	17.35706711	Cultural Debris	Cultural, Other	1	8	Scrap Bin	Fence post..
514	L17	1/23/2007	L17-00108	281137.7419	3845767.189	F - Cultural, Other	17.32278252	Cultural Debris	Cultural, Other	2	20	Scrap Bin	AA Batt, Srap meta.
515	L17	1/24/2007	L17-00109	281155.8917	3845775.961	C - Nail	17.27912768	Cultural Debris	Nail	1	8	Scrap Bin	
516	L17	1/24/2007	L17-00110	281155.7282	3845789.659	F - Cultural, Other	16.58460426	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Aluminum piece on surface.
517	L17	1/23/2007	L17-00111	281147.5696	3845768.779	D - Scrap Metal	16.48672867	Cultural Debris	Scrap Metal	4	12	Scrap Bin	
518	L17	1/24/2007	L17-00112	281147.984	3845775.322	F - Cultural, Other	15.22412014	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bolt.
519	L17	1/24/2007	L17-00113	281148.6883	3845795.981	C - Nail	14.47765586	Cultural Debris	Nail	1	1	Scrap Bin	
520	L17	1/24/2007	L17-00114	281142.337	3845781.621	H - No Contact	14.39115346	No Contact	N/A	0	0	No Action Required	
521	L17	1/24/2007	L17-00115	281137.7177	3845778.022	I - Under Road	14.06095028	Other	Under Road	0	0	No Action Required	
522	L17	1/24/2007	L17-00116	281157.6534	3845780.58	F - Cultural, Other	13.99549007	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Screws.
523	L17	1/24/2007	L17-00117	281165.0041	3845796.276	H - No Contact	13.68814091	No Contact	N/A	0	0	No Action Required	
524	L17	1/24/2007	L17-00118	281154.5764	3845768.498	C - Nail	13.6630497	Cultural Debris	Nail	10	6	Scrap Bin	
525	L17	1/24/2007	L17-00119	281145.2124	3845789.022	F - Cultural, Other	13.21926141	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Banding wire.
526	L17	1/24/2007	L17-00120	281159.128	3845786.929	E - Wire	12.54493523	Cultural Debris	Wire	1	12	Scrap Bin	
527	L17	1/24/2007	L17-00121	281153.1995	3845772.215	F - Cultural, Other	12.00388908	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Screw.
528	L17	1/24/2007	L17-00122	281146.26	3845793.241	I - Under Road	11.83110905	Other	Under Road	0	0	No Action Required	
529	L17	1/24/2007	L17-00123	281151.183	3845790.451	F - Cultural, Other	11.15559769	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Reinforced Concrete.
530	L17	1/24/2007	L17-00124	281153.1446	3845770.844	E - Wire	11.04583931	Cultural Debris	Wire	7	12	Scrap Bin	
531	L17	1/24/2007	L17-00125	281146.6192	3845775.53	C - Nail	10.82231331	Cultural Debris	Nail	3	16	Scrap Bin	
532	L17	1/24/2007	L17-00126	281151.8776	3845792.559	H - No Contact	10.68176746	No Contact	N/A	0	0	No Action Required	
533	L17	1/24/2007	L17-00127	281153.8699	3845788.97	F - Cultural, Other	10.05455494	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Reinforced concrete, Nail, Wire.
534	L17	1/24/2007	L17-00128	281163.8927	3845795.435	F - Cultural, Other	9.656644821	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Nut, Wire, Reinforced concrete.
535	L17	1/24/2007	L17-00129	281157.8667	3845782.098	F - Cultural, Other	9.078104019	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Hinge, Nails.
536	L17	1/24/2007	L17-00130	281138.1626	3845792.955	C - Nail	8.696984291	Cultural Debris	Nail	5	12	Scrap Bin	
537	L17	1/24/2007	L17-00131	281164.7883	3845794.941	C - Nail	8.657078743	Cultural Debris	Nail	2	24	Scrap Bin	
538	L17	1/24/2007	L17-00132	281157.9581	3845784.382	C - Nail	8.259625435	Cultural Debris	Nail	2	6	Scrap Bin	
539	L17	1/24/2007	L17-00133	281146.3574	3845788.05	C - Nail	8.069667816	Cultural Debris	Nail	4	12	Scrap Bin	
540	L17	1/24/2007	L17-00134	281153.1479	3845787.123	C - Nail	8.016590815	Cultural Debris	Nail	2	2	Scrap Bin	
541	L17	1/24/2007	L17-00135	281166.9795	3845767.49	C - Nail	7.894700788	Cultural Debris	Nail	6	6	Scrap Bin	
542	L17	1/23/2007	L17-00136	281168.1942	3845792.364	F - Cultural, Other	7.751755714	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Pipe, Reinforced Concrete.
543	L17	1/24/2007	L17-00137	281158.9208	3845785.564	E - Wire	7.727589607	Cultural Debris	Wire	1	12	Scrap Bin	
544	L17	1/24/2007	L17-00138	281158.1451	3845795.186	D - Scrap Metal	6.261382723	Cultural Debris	Scrap Metal	6	6	Scrap Bin	
545	L17	1/24/2007	L17-00139	281137.9738	3845795.862	C - Nail	5.515108109	Cultural Debris	Nail	1	6	Scrap Bin	
546	L17	1/24/2007	L17-00140	281162.1671	3845796.333	F - Cultural, Other	5.486488118	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Sdrew.
547	L17	1/24/2007	L17-00141	281149.0566	3845790.689	F - Cultural, Other	5.420176506	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Welding rods, Scrap metal.
548	L17		L17-00142	281153.7847	3845794.466		5.402112484			0	0		
549	L17	1/24/2007	L17-00143	281167.5691	3845777.832	C - Nail	4.77373372	Cultural Debris	Nail	8	12	Scrap Bin	
550	L17	1/24/2007	L17-00144	281163.978	3845793.753	C - Nail	4.338028431	Cultural Debris	Nail	1	6	Scrap Bin	
551	L17	1/23/2007	L17-00145	281159.8966	3845767.508	C - Nail	4.042059166	Cultural Debris	Nail	3	6	Scrap Bin	
552	L17	1/23/2007	L17-00146	281136.8979	3845768.272	C - Nail	3.57140578	Cultural Debris	Nail	3	18	Scrap Bin	
553	L17	1/24/2007	L17-00147	281148.4413	3845794.795	D - Scrap Metal	3.287315265	Cultural Debris	Scrap Metal	2	1	Scrap Bin	
554	L17	1/24/2007	L17-00148	281137.3643	3845776.815	F - Cultural, Other	3.025319099	Cultural Debris	Cultural, Other	6	2	Scrap Bin	Screws.
555	M25	1/10/2007	M25-00046	281404.3035	3845809.92	C - Nail	23.28956032	Cultural Debris	Nail	2	4	Scrap Bin	
556	M25	1/10/2007	M25-00047	281409.933	3845794.286	E - Wire	22.76391029	Cultural Debris	Wire	1	12	Scrap Bin	Concrete with wire.
557	M25	1/10/2007	M25-00048	281398.0155	3845793.847	C - Nail	22.52545357	Cultural Debris	Nail	1	6	Scrap Bin	
558	M25	1/10/2007	M25-00049	281402.7437	3845809.067	C - Nail	21.57462502	Cultural Debris	Nail	1	4	Scrap Bin	
559	M25	1/11/2007	M25-00050	281383.6925	3845811.006	D - Scrap Metal	21.49606862	Cultural Debris	Scrap Metal	4	12	Scrap Bin	2 nails, metal rod, wire.
560	M25	1/10/2007	M25-00051	281412.7837	3845805.53	C - Nail	21.49490689	Cultural Debris	Nail	8	6	Scrap Bin	
561	M25	1/10/2007	M25-00052	281411.0724	3845796.071	D - Scrap Metal	19.12754059	Cultural Debris	Scrap Metal	1	6	Scrap Bin	4 inch. x 3 iinch.
562	M25	1/11/2007	M25-00053	281382.3021	3845793.866	D - Scrap Metal	18.21205902	Cultural Debris	Scrap Metal	3	6	Scrap Bin	1 x 4 inch metal, 2 nails.
563	M25	1/10/2007	M25-00054	281399.5936	3845802.785	C - Nail	17.70233917	Cultural Debris	Nail	2	4	Scrap Bin	
564	M25	1/10/2007	M25-00055	281407.0636	3845814.081	C - Nail	17.32324409	Cultural Debris	Nail	1	4	Scrap Bin	
565	M25	1/11/2007	M25-00056	281393.6259	3845809.61	C - Nail	17.06748698	Cultural Debris	Nail	2	6	Scrap Bin	
566	M25	1/11/2007	M25-00057	281387.5239	3845813.795	F - Cultural, Other	16.43322945	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Concrete with wire.
567	M25	1/11/2007	M25-00058	281388.6144	3845802.92	D - Scrap Metal	16.28673363	Cultural Debris	Scrap Metal	2	4	Scrap Bin	1 nail, 1 bolt.
568	M25	1/10/2007	M25-00059	281407.4413	3845808.269	C - Nail	15.97282219	Cultural Debris	Nail	1	6	Scrap Bin	
569	M25	1/10/2007	M25-00060	281400.1053	3845792.696	C - Nail	15.87495232	Cultural Debris	Nail	1	6	Scrap Bin	8 inches long.
570	M25	1/10/2007	M25-00061	281410.3475	3845804.643	C - Nail	15.6595459	Cultural Debris	Nail	5	8	Scrap Bin	
571	M25	1/11/2007	M25-00062	281392.5809	3845806.727	E - Wire	15.30246925	Cultural Debris	Wire	1	2	Scrap Bin	1 short piece
572	M25	1/11/2007	M25-00063	281387.4324	3845807.696	C - Nail	15.12137604	Cultural Debris	Nail	5	6	Scrap Bin	
573	M25	1/10/2007	M25-00064	281408.4648	3845803.346	C - Nail	14.98832989	Cultural Debris	Nail	1	6	Scrap Bin	6 inch. long
574	M25	1/10/2007	M25-00065	281400.7634	3845801.518	E - Wire	14.76019764	Cultural Debris	Wire	1	4	Scrap Bin	
575	M25	1/10/2007	M25-00066	281403.6819	3845798.197	C - Nail	14.60284328	Cultural Debris	Nail	1	6	Scrap Bin	
576	M25	1/10/2007	M25-00067	281409.6652	3845814.282	C - Nail	14.46373558	Cultural Debris	Nail	1	6	Scrap Bin	
577	M25	1/10/2007	M25-00068	281407.356	3845809.95	E - Wire	14.28395462	Cultural Debris	Wire	1	6	Scrap Bin	
578	M25	1/10/2007	M25-00069	281410.1952	3845808.464	D - Scrap Metal	14.27185631	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Steel bolt

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
579	M25	1/11/2007	M25-00070	281397.1457	3845817.193	C - Nail	14.18291053	Cultural Debris	Nail	2	6	Scrap Bin	
580	M25	1/10/2007	M25-00071	281411.3582	3845801.567	F - Cultural, Other	14.14858018	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Vacuum tube.
581	M25	1/11/2007	M25-00072	281399.2038	3845812.107	I - Under Road	13.71438313	Other	Under Road	0	0	No Action Required	
582	M25	1/10/2007	M25-00073	281411.3469	3845814.368	C - Nail	13.63957024	Cultural Debris	Nail	3	6	Scrap Bin	
583	M25	1/10/2007	M25-00074	281411.0849	3845815.446	C - Nail	13.565485	Cultural Debris	Nail	1	6	Scrap Bin	
584	M25	1/11/2007	M25-00075	281384.6784	3845803.687	D - Scrap Metal	13.47754192	Cultural Debris	Scrap Metal	7	4	Scrap Bin	5 nails , 2 pieces of wire.
585	M25	1/11/2007	M25-00076	281401.2875	3845806.989	I - Under Road	12.79392147	Other	Under Road	0	0	No Action Required	
586	M25	1/11/2007	M25-00077	281386.8273	3845797.407	D - Scrap Metal	12.66304845	Cultural Debris	Scrap Metal	12	6	Scrap Bin	10 Nails, 1 Butter knife, 1 Metal banding.
587	M25	1/10/2007	M25-00078	281411.8314	3845806.689	F - Cultural, Other	12.58110965	Cultural Debris	Cultural, Other	1	10	Scrap Bin	Power line cable .
588	M25	1/10/2007	M25-00079	281402.049	3845799.331	C - Nail	12.26723099	Cultural Debris	Nail	1	6	Scrap Bin	
589	M25	1/11/2007	M25-00080	281392.8366	3845797.869	I - Under Road	12.14873505	Other	Under Road	0	0	No Action Required	
590	M25	1/10/2007	M25-00081	281406.6186	3845795.334	C - Nail	11.90657139	Cultural Debris	Nail	1	0	Scrap Bin	
591	M25	1/10/2007	M25-00082	281412.1755	3845816.013	C - Nail	11.90530682	Cultural Debris	Nail	2	6	Scrap Bin	
592	M25	1/11/2007	M25-00083	281391.2648	3845808.153	F - Cultural, Other	11.62743855	Cultural Debris	Cultural, Other	3	6	Scrap Bin	1 nail, 1 bolt, 1 reinforced piece of concrete.
593	M25	1/10/2007	M25-00084	281397.1321	3845798.459	C - Nail	11.431283	Cultural Debris	Nail	1	2	Scrap Bin	
594	M25	1/10/2007	M25-00085	281408.1663	3845807.324	C - Nail	11.0769453	Cultural Debris	Nail	1	8	Scrap Bin	
595	M25	1/11/2007	M25-00086	281389.6744	3845791.282	I - Under Road	10.48501587	Other	Under Road	0	0	No Action Required	
596	M25	1/11/2007	M25-00087	281394.9389	3845812.278	C - Nail	10.41239071	Cultural Debris	Nail	3	4	Scrap Bin	
597	M25	1/11/2007	M25-00088	281386.8353	3845804.211	C - Nail	9.849537849	Cultural Debris	Nail	3	2	Scrap Bin	
598	M25	1/10/2007	M25-00089	281399.49	3845800.196	C - Nail	9.799886703	Cultural Debris	Nail	3	2	Scrap Bin	
599	M25	1/10/2007	M25-00090	281412.675	3845809.432	C - Nail	9.778170586	Cultural Debris	Nail	4	6	Scrap Bin	
600	M25		M25-00001	281403.6026	3845792.403		1836.87085			0	0		
601	M25		M25-00002	281400.0687	3845787.968		512.8817139			0	0		
602	M25	1/11/2007	M25-00003	281387.3168	3845816.245	F - Cultural, Other	218.7178802	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Metal cable anchor.
603	M25		M25-00004	281396.2666	3845787.308		205.3451365			0	0		
604	M25		M25-00005	281391.6913	3845803.559		146.8441925			0	0		
605	M25	1/10/2007	M25-00006	281410.9931	3845790.277	D - Scrap Metal	109.5505753	Cultural Debris	Scrap Metal	1	18	Scrap Bin	Pipe
606	M25	1/10/2007	M25-00007	281411.6574	3845799.251	C - Nail	86.41876984	Cultural Debris	Nail	4	6	Scrap Bin	
607	M25	1/11/2007	M25-00008	281405.3515	3845813.234	I - Under Road	76.80555725	Other	Under Road	0	0	No Action Required	
608	M25	1/11/2007	M25-00009	281399.0881	3845816.841	C - Nail	63.74571228	Cultural Debris	Nail	2	2	Scrap Bin	
609	M25	1/11/2007	M25-00010	281389.9121	3845811.781	F - Cultural, Other	61.83828718	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Tire iron
610	M25	1/11/2007	M25-00011	281395.5726	3845816.677	D - Scrap Metal	59.39306641	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Metal banding
611	M25	1/10/2007	M25-00012	281397.8084	3845800.111	I - Under Road	59.0916481	Other	Under Road	0	0	No Action Required	
612	M25	1/11/2007	M25-00013	281381.7713	3845788.57	D - Scrap Metal	55.94833201	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Pipe, Bolt, nails.
613	M25	1/10/2007	M25-00014	281405.9851	3845810.005	C - Nail	55.8187561	Cultural Debris	Nail	2	6	Scrap Bin	
614	M25	1/10/2007	M25-00015	281409.8722	3845800.391	F - Cultural, Other	53.23809433	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Pieces of Tile Pipe.
615	M25	1/10/2007	M25-00016	281407.2405	3845802.779	C - Nail	45.77354641	Cultural Debris	Nail	2	6	Scrap Bin	
616	M25	1/11/2007	M25-00017	281397.8269	3845815.824	C - Nail	45.71896744	Cultural Debris	Nail	1	2	Scrap Bin	
617	M25	1/11/2007	M25-00018	281391.7644	3845805.387	C - Nail	44.75958633	Cultural Debris	Nail	1	2	Scrap Bin	6 inches long.
618	M25	1/10/2007	M25-00019	281405.2235	3845806.222	C - Nail	38.88627243	Cultural Debris	Nail	3	2	Scrap Bin	
619	M25	1/11/2007	M25-00020	281395.7796	3845810.414	I - Under Road	38.48095703	Other	Under Road	0	0	No Action Required	
620	M25	1/10/2007	M25-00021	281408.3796	3845812.656	C - Nail	38.0329628	Cultural Debris	Nail	2	8	Scrap Bin	
621	M25	1/10/2007	M25-00022	281405.2049	3845790.508	E - Wire	37.33094025	Cultural Debris	Wire	1	6	Scrap Bin	
622	M25	1/11/2007	M25-00023	281391.6426	3845809.969	C - Nail	37.15855408	Cultural Debris	Nail	1	12	Scrap Bin	
623	M25	1/11/2007	M25-00024	281388.3828	3845800.945	D - Scrap Metal	36.41533279	Cultural Debris	Scrap Metal	2	6	Scrap Bin	1 nut, 2 inch long metal pipe.
624	M25	1/10/2007	M25-00025	281397.2052	3845796.473	C - Nail	36.35786438	Cultural Debris	Nail	1	2	Scrap Bin	
625	M25	1/11/2007	M25-00026	281388.0842	3845797.296	I - Under Road	35.635746	Other	Under Road	0	0	No Action Required	
626	M25	1/11/2007	M25-00027	281390.832	3845793.524	I - Under Road	35.20854187	Other	Under Road	0	0	No Action Required	
627	M25	1/10/2007	M25-00028	281408.7564	3845805.35	C - Nail	34.97493216	Cultural Debris	Nail	1	4	Scrap Bin	6 inch. long.
628	M25	1/10/2007	M25-00029	281407.7274	3845792.543	F - Cultural, Other	34.26880646	Cultural Debris	Cultural, Other	2	6	Scrap Bin	1 - Piece of Concrete , 1 Metal Sawblade.
629	M25	1/11/2007	M25-00030	281383.4902	3845793.055	D - Scrap Metal	33.93021393	Cultural Debris	Scrap Metal	2	6	Scrap Bin	6 inch nail, Hinge pin
630	M25	1/11/2007	M25-00031	281383.9837	3845790.137	C - Nail	33.88385391	Cultural Debris	Nail	4	6	Scrap Bin	
631	M25	1/10/2007	M25-00032	281407.3073	3845816.36	D - Scrap Metal	32.84211349	Cultural Debris	Scrap Metal	1	2	Scrap Bin	Bolt
632	M25	1/11/2007	M25-00033	281385.4399	3845796.029	C - Nail	32.17981339	Cultural Debris	Nail	1	4	Scrap Bin	
633	M25	1/12/2007	M25-00034	281388.1757	3845799.581	C - Nail	32.00259781	Cultural Debris	Nail	3	6	Scrap Bin	
634	M25	1/11/2007	M25-00035	281389.8574	3845807.294	C - Nail	31.76630592	Cultural Debris	Nail	3	12	Scrap Bin	6 inches long.
635	M25	1/11/2007	M25-00036	281397.4491	3845814.008	C - Nail	30.887537	Cultural Debris	Nail	3	2	Scrap Bin	
636	M25	1/11/2007	M25-00037	281390.8931	3845806.49	C - Nail	30.52918625	Cultural Debris	Nail	8	6	Scrap Bin	
637	M25	1/11/2007	M25-00038	281384.0995	3845796.845	C - Nail	29.92816353	Cultural Debris	Nail	3	4	Scrap Bin	
638	M25	1/10/2007	M25-00039	281411.1031	3845812.089	C - Nail	26.82245445	Cultural Debris	Nail	4	6	Scrap Bin	
639	M25	1/10/2007	M25-00040	281400.5135	3845795.273	C - Nail	26.79383659	Cultural Debris	Nail	1	4	Scrap Bin	
640	M25	1/10/2007	M25-00041	281395.3407	3845795.632	C - Nail	26.37770462	Cultural Debris	Nail	1	4	Scrap Bin	
641	M25	1/10/2007	M25-00042	281407.3256	3845813.003	C - Nail	25.50198555	Cultural Debris	Nail	1	2	Scrap Bin	
642	M25	1/11/2007	M25-00043	281382.8369	3845799.979	D - Scrap Metal	24.50504895	Cultural Debris	Scrap Metal	3	2	Scrap Bin	Bolt, Long nail, 2 inch long pipe.
643	M25	1/10/2007	M25-00044	281400.6781	3845799.386	C - Nail	23.97030067	Cultural Debris	Nail	1	6	Scrap Bin	
644	M25	1/11/2007	M25-00045	281387.1215	3845796.114	C - Nail	23.34174347	Cultural Debris	Nail	4	1	Scrap Bin	
645	M25	1/11/2007	M25-00091	281389.0848	3845804.504	D - Scrap Metal	9.525561233	Cultural Debris	Scrap Metal	3	4	Scrap Bin	2 nails, 1 short cable.
646	M25	1/10/2007	M25-00092	281411.9924	3845792.373	F - Cultural, Other	9.231409073	Cultural Debris	Cultural, Other	1	1	Scrap Bin	PVC Pipe, Steel Pipe, Concrete Cap.
647	M25	1/11/2007	M25-00093	281390.7101	3845790.478	I - Under Road	9.173555374	Other	Under Road	0	0	No Action Required	
648	M25	1/11/2007	M25-00094	281392.3735	3845793.92	I - Under Road	9.01240921	Other	Under Road	0	0	No Action Required	
649	M25	1/10/2007	M25-00095	281408.9645	3845808.208	C - Nail	8.985545158	Cultural Debris	Nail	2	4	Scrap Bin	
650	M25	1/11/2007	M25-00096	281391.8559	3845811.486	F - Cultural, Other	8.880069733	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Hinge, Sign Post concrete left In ground.
651	M25	1/10/2007	M25-00097	281404.1511	3845802.298	C - Nail	8.768772125	Cultural Debris	Nail	3	4	Scrap Bin	
652	M25	1/10/2007	M25-00098	281406.6431	3845807.385	C - Nail	8.500792503	Cultural Debris	Nail	1	4	Scrap Bin	
653	M25	1/10/2007	M25-00099	281397.6988	3845804.997	C - Nail	8.468142509	Cultural Debris	Nail	1	4	Scrap Bin	
654	M25	1/11/2007	M25-00100	281395.9074	3845798.356	I - Under Road	8.367560387	Other	Under Road	0	0	No Action Required	
655	M25	1/10/2007	M25-00101	281408.7937	3845796.315	C - Nail	8.310368538	Cultural Debris	Nail	1	4	Scrap Bin	
656	M25	1/10/2007	M25-00102	281403.9728	3845786.878	E - Wire	8.143473362	Cultural Debris	Wire	1	4	Scrap Bin	
657	M25	1/11/2007	M25-00103	281392.8064	3845812.363	C - Nail	8.120349884	Cultural Debris	Nail	10	4	Scrap Bin	
658	M25	1/11/2007	M25-00104	281396.8033	3845813.119	C - Nail	8.114792824	Cultural Debris	Nail	3	4	Scrap Bin	
659	M25	1/11/2007	M25-00105	281382.8081	3845815.274	C - Nail	8.031849714	Cultural Debris	Nail	4	6	Scrap Bin	
660	M25	1/11/2007	M25-00106	281386.4392	3845801.939	D - Scrap Metal	7.844054699	Cultural Debris	Scrap Metal	8	6	Scrap Bin	4 pieces of metal, 4 nails.
661	M25	1/11/2007	M25-00107	281382.2168	3845791.733	C - Nail	7.801633835	Cultural Debris	Nail	3	2	Scrap Bin	
662	M25	1/10/2007	M25-00108	281406.4336	3845797.232	D - Scrap Metal	7.643017425	Cultural Debris	Scrap Metal	2	12	Scrap Bin	Metal Pipe.
663	M25	1/11/2007	M25-00109	281383.4723	3845798.808	C - Nail	7.173791173	Cultural Debris	Nail	1	2	Scrap Bin	
664	M25	1/11/2007	M25-00110	281388.0782	3845804.772	C - Nail	6.571886539	Cultural Debris	Nail	3	6	Scrap Bin	

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Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
665	M25	1/11/2007	M25-00111	281390.5582	3845817.183	D - Scrap Metal	6.250175476	Cultural Debris	Scrap Metal	4	6	Scrap Bin	3 nails, 3 x 5 inch piece of metal
666	M25	1/10/2007	M25-00112	281412.2008	3845794.004	D - Scrap Metal	6.202302965	Cultural Debris	Scrap Metal	1	10	Scrap Bin	3 inch x 4 inch
667	M25	1/10/2007	M25-00113	281399.5935	3845795.157	C - Nail	6.197249889	Cultural Debris	Nail	1	6	Scrap Bin	
668	M25	1/10/2007	M25-00114	281402.0917	3845804.211	C - Nail	6.183655262	Cultural Debris	Nail	1	4	Scrap Bin	
669	M25	1/11/2007	M25-00115	281393.5437	3845815.538	C - Nail	6.118226528	Cultural Debris	Nail	4	6	Scrap Bin	
670	M25	1/10/2007	M25-00116	281406.5942	3845798.539	C - Nail	6.064461708	Cultural Debris	Nail	1	6	Scrap Bin	
671	M25	1/11/2007	M25-00117	281399.3074	3845810.883	I - Under Road	5.840935707	Other	Under Road	0	0	No Action Required	
672	M25	1/10/2007	M25-00118	281412.5734	3845798.368	C - Nail	5.78849031	Cultural Debris	Nail	3	8	Scrap Bin	
673	M25	1/11/2007	M25-00119	281401.6105	3845815.062	I - Under Road	5.665718079	Other	Under Road	0	0	No Action Required	
674	M25	1/10/2007	M25-00120	281393.4641	3845794.487	C - Nail	5.594429016	Cultural Debris	Nail	1	4	Scrap Bin	
675	M25	1/11/2007	M25-00121	281384.782	3845802.463	D - Scrap Metal	5.587881088	Cultural Debris	Scrap Metal	5	4	Scrap Bin	3 nails , 2 pieces of wire.
676	M25	1/11/2007	M25-00122	281403.0424	3845816.531	I - Under Road	5.486707687	Other	Under Road	0	0	No Action Required	
677	M25	1/10/2007	M25-00123	281403.7307	3845807.044	C - Nail	5.482574463	Cultural Debris	Nail	1	4	Scrap Bin	
678	M25	1/10/2007	M25-00124	281405.5767	3845799.8	C - Nail	5.471236229	Cultural Debris	Nail	0	2	Scrap Bin	
679	M25	1/11/2007	M25-00125	281391.4843	3845813.637	C - Nail	5.340062618	Cultural Debris	Nail	2	0	Scrap Bin	
680	M25	1/11/2007	M25-00126	281385.6412	3845808.683	F - Cultural, Other	4.798394203	Cultural Debris	Cultural, Other	1	20	Scrap Bin	Sewer pipe [terra cotta].
681	M25	1/10/2007	M25-00127	281408.3153	3845787.63	C - Nail	4.792377424	Cultural Debris	Nail	2	4	Scrap Bin	
682	M25	1/11/2007	M25-00128	281388.9432	3845788.26	I - Under Road	4.713256836	Other	Under Road	0	0	No Action Required	
683	M25	1/11/2007	M25-00129	281390.8824	3845787.325	C - Nail	4.700351357	Cultural Debris	Nail	2	2	Scrap Bin	6 inch nails .
684	M25	1/11/2007	M25-00130	281389.0285	3845790.393	I - Under Road	4.584441185	Other	Under Road	0	0	No Action Required	
685	M25	1/11/2007	M25-00131	281393.6167	3845813.551	C - Nail	4.573553562	Cultural Debris	Nail	2	6	Scrap Bin	
686	M25	1/11/2007	M25-00132	281384.2091	3845788.144	I - Under Road	4.479014397	Other	Under Road	0	0	No Action Required	
687	M25	1/10/2007	M25-00133	281404.5411	3845808.232	C - Nail	4.458435535	Cultural Debris	Nail	1	4	Scrap Bin	
688	M25	1/10/2007	M25-00134	281399.7032	3845794.085	C - Nail	3.994945765	Cultural Debris	Nail	1	8	Scrap Bin	
689	M25	1/10/2007	M25-00135	281404.8882	3845797.844	F - Cultural, Other	3.892420292	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Tile Pipe.
690	M25	1/11/2007	M25-00136	281393.2389	3845807.922	E - Wire	3.776265621	Cultural Debris	Wire	2	2	Scrap Bin	2 Short pieces .
691	M25	1/11/2007	M25-00137	281386.4269	3845794.006	I - Under Road	3.653793573	Other	Under Road	0	0	No Action Required	
692	M25	1/11/2007	M25-00138	281384.8473	3845800.288	C - Nail	3.652453247	Cultural Debris	Nail	3	4	Scrap Bin	
693	M25	1/11/2007	M25-00139	281383.9716	3845801.275	D - Scrap Metal	3.573056221	Cultural Debris	Scrap Metal	2	4	Scrap Bin	Nail, Short piece of wire.
694	M25	1/11/2007	M25-00140	281400.654	3845814.033	I - Under Road	3.515511751	Other	Under Road	0	0	No Action Required	
695	M25	1/10/2007	M25-00141	281401.0681	3845805.32	C - Nail	3.437900305	Cultural Debris	Nail	4	4	Scrap Bin	
696	M25	1/10/2007	M25-00142	281412.1266	3845803.352	C - Nail	3.407322884	Cultural Debris	Nail	4	4	Scrap Bin	
697	M25	1/11/2007	M25-00143	281393.7079	3845796.766	I - Under Road	3.356662273	Other	Under Road	0	0	No Action Required	
698	M25	1/10/2007	M25-00144	281405.534	3845807.623	F - Cultural, Other	3.254193252	Cultural Debris	Cultural, Other	4	6	Scrap Bin	1 - Spoon , 3 - Nails.
699	M25	1/11/2007	M25-00145	281392.6051	3845795.894	I - Under Road	3.222374201	Other	Under Road	0	0	No Action Required	
700	M25	1/11/2007	M25-00146	281385.824	3845813.253	F - Cultural, Other	3.11958313	Cultural Debris	Cultural, Other	3	12	Scrap Bin	2 nails , 1 piece of concrete.
701	M25	1/10/2007	M25-00147	281405.3877	3845787.45	D - Scrap Metal	3.026278257	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
702	M25	1/11/2007	M25-00148	281384.9343	3845798.642	C - Nail	3.01	Cultural Debris	Nail	4	4	Scrap Bin	
703	M25	1/11/2007	M25-00149	281395.9624	3845807.355	I - Under Road	3	Other	Under Road	0	0	No Action Required	
704	K20	1/17/2007	K20-00086	281228.6707	3845732.885	F - Cultural, Other	44.20379257	Cultural Debris	Cultural, Other	3	6	Scrap Bin	1 - Naill, 2 - Screws.
705	K20		K20-00087	281257.4609	3845734.38		43.92033924			0	0		
706	K20	1/17/2007	K20-00088	281250.7215	3845756.624	F - Cultural, Other	40.08926882	Cultural Debris	Cultural, Other	20	4	Scrap Bin	Cleaning rod, Screws, Wire.
707	K20	1/17/2007	K20-00089	281238.0464	3845733.7	F - Cultural, Other	39.91828629	Cultural Debris	Cultural, Other	1	6	Scrap Bin	10 inch bolt.
708	K20	1/17/2007	K20-00090	281245.4444	3845740.3	F - Cultural, Other	39.79671097	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Triler tie down, Grounding rod.
709	K20		K20-00091	281243.1595	3845736.577		39.10614395			0	0		
710	K20	1/16/2007	K20-00092	281246.9435	3845758.7	F - Cultural, Other	39.00175095	Cultural Debris	Cultural, Other	24	6	Scrap Bin	Naill, Spikes, Striker plate, Hose clamp.
711	K20	1/17/2007	K20-00093	281255.193	3845747.538	F - Cultural, Other	38.34896088	Cultural Debris	Cultural, Other	2	12	Scrap Bin	15 inch rebar, Screw.
712	K20	1/16/2007	K20-00094	281247.041	3845761.137	D - Scrap Metal	37.86972427	Cultural Debris	Scrap Metal	2	24	Scrap Bin	
713	K20	1/17/2007	K20-00095	281250.6964	3845741.92	F - Cultural, Other	36.36129761	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Nails, Wire.
714	K20	1/17/2007	K20-00096	281239.6502	3845748.007	F - Cultural, Other	36.33989716	Cultural Debris	Cultural, Other	19	12	Scrap Bin	Nails, Welding rod.
715	K20	1/17/2007	K20-00097	281247.9851	3845742.791	F - Cultural, Other	35.83646011	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Nails, Screws.
716	K20	1/17/2007	K20-00098	281244.0308	3845739.288	F - Cultural, Other	34.91239929	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Grounding rod left in place, 2 nails removed.
717	K20	1/17/2007	K20-00099	281249.2098	3845742.895	F - Cultural, Other	34.56191635	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails, Wire.
718	K20	1/17/2007	K20-00100	281226.9954	3845734.1	F - Cultural, Other	34.35409648	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Scrap metal, Nails, Screws.
719	K20		K20-00001	281235.1234	3845760.698		1133.563232			0	0		
720	K20		K20-00002	281238.7544	3845737.058		1082.977783			0	0		
721	K20		K20-00003	281238.2369	3845762.252		1034.661255			0	0		
722	K20		K20-00004	281250.3886	3845746.742		929.1712513			0	0		
723	K20		K20-00005	281251.3665	3845731.977		848.0547485			0	0		
724	K20		K20-00006	281235.2078	3845752.161		806.1752961			0	0		
725	K20		K20-00007	281239.108	3845749.707		773.7252197			0	0		
726	K20		K20-00008	281229.7129	3845751.303		764.8145142			0	0		
727	K20		K20-00009	281241.5815	3845739.081		752.5232544			0	0		
728	K20		K20-00010	281234.1303	3845758.755		604.7019043			0	0		
729	K20		K20-00011	281246.1572	3845739.05		597.3831787			0	0		
730	K20		K20-00012	281253.822	3845736.15		571.9694824			0	0		
731	K20		K20-00013	281242.465	3845742.097		557.6717529			0	0		
732	K20		K20-00014	281237.3775	3845744.589		548.5001221			0	0		
733	K20		K20-00015	281235.379	3845736.583		530.4607544			0	0		
734	K20		K20-00016	281249.0026	3845734.056		502.7666084			0	0		
735	K20		K20-00017	281238.5108	3845742.408		464.741333			0	0		
736	K20		K20-00018	281232.1665	3845746.739		428.1469087			0	0		
737	K20		K20-00019	281255.2965	3845738.685		420.4050903			0	0		
738	K20		K20-00020	281242.6477	3845735.224		413.7582397			0	0		
739	K20		K20-00021	281234.7131	3845745.549		410.2464216			0	0		
740	K20		K20-00022	281240.8565	3845743.84		380.5946655			0	0		
741	K20		K20-00023	281244.4329	3845734.085		374.1438293			0	0		
742	K20		K20-00024	281243.8902	3845757.399		360.0699574			0	0		
743	K20		K20-00025	281240.7284	3845733.013		350.3608704			0	0		
744	K20		K20-00026	281252.6704	3845734.06		331.9811401			0	0		
745	K20		K20-00027	281239.8697	3845757.305		322.9203491			0	0		
746	K20		K20-00028	281254.7473	3845731.755		294.8531208			0	0		
747	K20		K20-00029	281245.0181	3845752.522		292.5238342			0	0		
748	K20		K20-00030	281239.1493	3845740.873		278.3013532			0	0		
749	K20		K20-00031	281257.0194	3845756.121		263.5954368			0	0		
750	K20		K20-00032	281246.0051	3845750.499		256.8683777			0	0		
751	K20		K20-00033	281234.1648	3845733.416		243.6925208			0	0		
752	K20		K20-00034	281243.428	3845762.349		239.0766602			0	0		
753	K20		K20-00035	281249.5939	3845760.119		236.0515289			0	0		

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
754	K20		K20-00036	281236.8108	3845734.237		234.9831696			0	0		
755	K20		K20-00037	281244.0355	3845737.498		226.9122595			0	0		
756	K20		K20-00038	281228.4	3845741.492		214.946156			0	0		
757	K20		K20-00039	281232.4906	3845735.491		201.7053913			0	0		
758	K20		K20-00040	281250.1116	3845750.182		178.3819427			0	0		
759	K20		K20-00041	281247.784	3845741.579		174.0298309			0	0		
760	K20		K20-00042	281247.4936	3845735.037		169.5628275			0	0		
761	K20		K20-00043	281239.9671	3845755.928		165.1225281			0	0		
762	K20		K20-00044	281240.9482	3845761.381		161.6062622			0	0		
763	K20		K20-00045	281242.4583	3845745.657		157.5456135			0	0		
764	K20		K20-00046	281227.7449	3845738.191		153.0253932			0	0		
765	K20		K20-00047	281240.7532	3845760.321		131.4871674			0	0		
766	K20		K20-00048	281252.7465	3845749.2		126.6203188			0	0		
767	K20	1/17/2007	K20-00049	281246.7333	3845741.658	F - Cultural, Other	126.243627	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Trailer tie down. Nail removed.
768	K20		K20-00050	281255.7009	3845760.818		119.1884426			0	0		
769	K20		K20-00051	281233.0503	3845737.979		118.9841489			0	0		
770	K20		K20-00052	281243.6346	3845754.146		115.4596688			0	0		
771	K20		K20-00053	281257.6609	3845753.334		115.3572926			0	0		
772	K20		K20-00054	281252.7008	3845762.172		112.5716018			0	0		
773	K20		K20-00055	281229.4447	3845748.415		108.7815628			0	0		
774	K20	1/17/2007	K20-00056	281248.4909	3845747.806	E - Wire	108.1334	Cultural Debris	Wire	4	4	Scrap Bin	
775	K20		K20-00057	281229.7576	3845737.253		103.0947433			0	0		
776	K20		K20-00058	281231.0287	3845734.621		101.9609375			0	0		
777	K20	1/17/2007	K20-00059	281256.1496	3845748.567	F - Cultural, Other	98.80770111	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Screws, Wire.
778	K20		K20-00060	281247.7233	3845751.498		96.80962372			0	0		
779	K20		K20-00061	281249.9928	3845752.009		95.18785915			0	0		
780	K20		K20-00062	281256.0431	3845734.339		93.22702528			0	0		
781	K20		K20-00063	281257.915	3845759.683		90.20401898			0	0		
782	K20		K20-00064	281257.7961	3845747.303		84.43317805			0	0		
783	K20		K20-00065	281247.6142	3845754.782		83.58742173			0	0		
784	K20		K20-00066	281246.9757	3845742.485		76.9031286			0	0		
785	K20		K20-00067	281231.0584	3845739.963		75.91345795			0	0		
786	K20		K20-00068	281242.8199	3845759.409		74.05204477			0	0		
787	K20		K20-00069	281253.2237	3845745.959		71.32544876			0	0		
788	K20		K20-00070	281246.5796	3845743.568		70.68774745			0	0		
789	K20		K20-00071	281244.2929	3845745.838		68.25123596			0	0		
790	K20	1/17/2007	K20-00072	281246.7177	3845733.993	F - Cultural, Other	65.78106689	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Grounding rod.
791	K20	1/16/2007	K20-00073	281237.5117	3845755.568	F - Cultural, Other	63.06148148	Cultural Debris	Cultural, Other	5	5	Scrap Bin	Screws.
792	K20	1/16/2007	K20-00074	281245.873	3845762.534	C - Nail	57.96010422	Cultural Debris	Nail	1	2	Scrap Bin	
793	K20	1/16/2007	K20-00075	281254.0903	3845758.109	F - Cultural, Other	52.6352005	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Screwdriver, bolt, wire.
794	K20	1/17/2007	K20-00076	281239.9486	3845736.4	D - Scrap Metal	51.17339325	Cultural Debris	Scrap Metal	9	4	Scrap Bin	Pieces of metal.
795	K20		K20-00077	281240.6067	3845741.408		50.80867386			0	0		
796	K20	1/17/2007	K20-00078	281237.6858	3845751.873	F - Cultural, Other	50.45542537	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete pieces .
797	K20		K20-00079	281240.9358	3845745.82		50.11478043			0	0		
798	K20	1/17/2007	K20-00080	281245.615	3845744.565	F - Cultural, Other	48.18436432	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Underground cable left in place. Wire/Nails removed.
799	K20		K20-00081	281240.034	3845742.347		46.04940033			0	0		
800	K20	1/16/2007	K20-00082	281248.095	3845760.79	G - Below 2 ft	45.64105225	Other	Below 2 ft	0	24	No Action Required	Sign post.
801	K20	1/17/2007	K20-00083	281253.8465	3845748.202	F - Cultural, Other	45.48738098	Cultural Debris	Cultural, Other	11	12	Scrap Bin	Cable, Screwws, Nails, Wire.
802	K20	1/17/2007	K20-00084	281232.3692	3845745.247	E - Wire	45.47081375	Cultural Debris	Wire	1	4	Scrap Bin	8 inch long.
803	K20	1/16/2007	K20-00085	281228.3602	3845744.187	F - Cultural, Other	45.21452332	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Pieces of sewer pipe, screws.
804	K20	1/17/2007	K20-00101	281256.5266	3845758.965	H - No Contact	33.64591901	No Contact	N/A	0	0	No Action Required	
805	K20	1/16/2007	K20-00102	281256.8199	3845757.694	F - Cultural, Other	31.7088623	Cultural Debris	Cultural, Other	7	12	Scrap Bin	Screws, Bolts, Wire.
806	K20	1/16/2007	K20-00103	281232.6374	3845751.949	F - Cultural, Other	31.56150246	Cultural Debris	Cultural, Other	13	6	Scrap Bin	Nails, Screws.
807	K20	1/16/2007	K20-00104	281252.3297	3845760.221	F - Cultural, Other	31.50243477	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Wire, Nail.
808	K20	1/17/2007	K20-00105	281251.6443	3845738.386	F - Cultural, Other	31.13917207	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Wire, Nail, Metal strap.
809	K20	1/16/2007	K20-00106	281230.7678	3845748.385	F - Cultural, Other	30.95228694	Cultural Debris	Cultural, Other	53	12	Scrap Bin	Nails, Bolts, Screws.
810	K20	1/16/2007	K20-00107	281253.5037	3845760.278	F - Cultural, Other	30.81866963	Cultural Debris	Cultural, Other	5	6	Scrap Bin	1 - wiree, 4 - nails.
811	K20	1/17/2007	K20-00108	281238.9951	3845746.946	F - Cultural, Other	29.78115037	Cultural Debris	Cultural, Other	6	4	Scrap Bin	6 inch Bolt, Nails.
812	K20	1/17/2007	K20-00109	281251.9515	3845742.785	F - Cultural, Other	29.06393051	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails, Rust flakes.
813	K20	1/16/2007	K20-00110	281258.0507	3845757.95	C - Nail	28.17583466	Cultural Debris	Nail	1	4	Scrap Bin	
814	K20	1/16/2007	K20-00111	281249.7071	3845756.895	E - Wire	28.02602682	Cultural Debris	Wire	1	4	Scrap Bin	
815	K20	1/17/2007	K20-00112	281238.389	3845750.804	F - Cultural, Other	26.92013931	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Wheel weight, reinforced concrete, Wire.
816	K20	1/16/2007	K20-00113	281245.3837	3845757.847	F - Cultural, Other	26.25684929	Cultural Debris	Cultural, Other	1	3	Scrap Bin	Childrens toy.
817	K20	1/16/2007	K20-00114	281233.4197	3845747.211	F - Cultural, Other	26.24702296	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nails, 6 inch bolt.
818	K20	1/17/2007	K20-00115	281244.3966	3845756.056	F - Cultural, Other	26.07309151	Cultural Debris	Cultural, Other	34	4	Scrap Bin	Large staples, Screws, Nails.
819	K20	1/17/2007	K20-00116	281232.3326	3845736.705	D - Scrap Metal	26.00511932	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
820	K20	1/16/2007	K20-00117	281229.3411	3845745.826	F - Cultural, Other	25.70564842	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Wire, Concrete, 3 Screws.
821	K20	1/17/2007	K20-00118	281244.1954	3845743.401	F - Cultural, Other	24.89704132	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Screws, Bolt.
822	K20	1/16/2007	K20-00119	281233.2911	3845746.087	F - Cultural, Other	24.46331542	Cultural Debris	Cultural, Other	5	12	Scrap Bin	4 Screws, 10 inch piece of wire.
823	K20	1/17/2007	K20-00120	281240.4439	3845747.077	F - Cultural, Other	23.6993478	Cultural Debris	Cultural, Other	24	12	Scrap Bin	Bolts, Nails, Screws, Welding rod.
824	K20	1/16/2007	K20-00121	281248.7774	3845758.779	F - Cultural, Other	22.96275711	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe
825	K20	1/16/2007	K20-00122	281244.6891	3845759.553	E - Wire	22.3522377	Cultural Debris	Wire	3	4	Scrap Bin	
826	K20	1/16/2007	K20-00123	281240.8567	3845755.282	F - Cultural, Other	21.99278641	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Screws, Nails.
827	K20	1/17/2007	K20-00124	281249.0452	3845754.101	F - Cultural, Other	21.23961657	Cultural Debris	Cultural, Other	6	2	Scrap Bin	Screws, Nails, Bolts.
828	K20	1/17/2007	K20-00125	281248.3689	3845737.131	F - Cultural, Other	20.90746117	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Metal post in concrete.
829	K20	1/17/2007	K20-00126	281247.1443	3845744.656	F - Cultural, Other	20.77628136	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Nails, Spring.
830	K20	1/17/2007	K20-00127	281240.9663	3845750.395	F - Cultural, Other	20.38915634	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nails, Reinforced concrete.
831	K20	1/17/2007	K20-00128	281249.3634	3845741.511	C - Nail	20.21546708	Cultural Debris	Nail	9	4	Scrap Bin	1 nail was 6 inches long.
832	K20	1/16/2007	K20-00129	281229.9505	3845753.43	F - Cultural, Other	20.10754395	Cultural Debris	Cultural, Other	4	4	Scrap Bin	1- Bolt, 3- Nails.
833	K20	1/16/2007	K20-00130	281234.6662	3845741.646	F - Cultural, Other	19.25357246	Cultural Debris	Cultural, Other	3	15	Scrap Bin	Screws , Naiil .
834	K20	1/17/2007	K20-00131	281242.4973	3845751.346	F - Cultural, Other	18.36182735	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Pieces of reinforced concrete.
835	K20	1/16/2007	K20-00132	281233.2953	3845741.701	D - Scrap Metal	18.3093338	Cultural Debris	Scrap Metal	3	24	Scrap Bin	
836	K20	1/16/2007	K20-00133	281236.6101	3845759.724	C - Nail	17.86670876	Cultural Debris	Nail	2	6	Scrap Bin	
837	K20	1/17/2007	K20-00134	281228.0858	3845733.518	F - Cultural, Other	17.15667725	Cultural Debris	Cultural, Other	7	6	Scrap Bin	Nails, Screws.
838	K20	1/17/2007	K20-00135	281243.0805	3845749.853	F - Cultural, Other	16.34541893	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Washer, Bolt.
839	K20	1/17/2007	K20-00136	281232.1134	3845750.292	C - Nail	16.33589745	Cultural Debris	Nail	8	4	Scrap Bin	
840	K20	1/17/2007	K20-00137	281239.0654	3845752.455	F - Cultural, Other	16.23132896	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Reinforced concrete, Nails.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
841	K20	1/17/2007	K20-00138	281235.8753	3845749.498	F - Cultural, Other	16.18396593	Cultural Debris	Cultural, Other	10	6	Scrap Bin	Electrical box cover, Nails.
842	K20	1/17/2007	K20-00139	281253.6052	3845740.86	F - Cultural, Other	15.90211791	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Wires, Nails, Bolt.
843	K20	1/17/2007	K20-00140	281242.8368	3845747.574	F - Cultural, Other	15.73261642	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Nails, Bolt.
844	K20	1/17/2007	K20-00141	281237.9747	3845748.074	C - Nail	15.72873878	Cultural Debris	Nail	6	6	Scrap Bin	
845	K20	1/17/2007	K20-00142	281251.4092	3845736.857	E - Wire	15.1630764	Cultural Debris	Wire	2	2	Scrap Bin	
846	K20	1/17/2007	K20-00143	281251.3059	3845753.338	F - Cultural, Other	15.11218452	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Screws, Nails, Pieces of metal..
847	K20	1/16/2007	K20-00144	281238.8097	3845755.385	F - Cultural, Other	15.02972686	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Screws
848	K20	1/16/2007	K20-00145	281232.2473	3845742.201	F - Cultural, Other	14.13413239	Cultural Debris	Cultural, Other	2	2	Scrap Bin	
849	K20	1/16/2007	K20-00146	281231.5083	3845752.769	F - Cultural, Other	13.92915428	Cultural Debris	Cultural, Other	5	6	Scrap Bin	1- Bolt, 4 - Screws.
850	K20	1/17/2007	K20-00147	281237.0425	3845747.654	F - Cultural, Other	13.20429993	Cultural Debris	Cultural, Other	10	6	Scrap Bin	Screws, Nails.
851	K20	1/16/2007	K20-00148	281248.6982	3845756.799	F - Cultural, Other	13.08975983	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Washers
852	K20	1/17/2007	K20-00149	281236.7376	3845749.087	F - Cultural, Other	12.82808273	Cultural Debris	Cultural, Other	25	6	Scrap Bin	Screws, Nails, Wire.
853	K20	1/17/2007	K20-00150	281257.7094	3845749.42	E - Wire	12.35214233	Cultural Debris	Wire	3	4	Scrap Bin	
854	K20	1/16/2007	K20-00151	281227.7205	3845747.264	F - Cultural, Other	12.11801529	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Concrete, Nail.
855	K20	1/16/2007	K20-00152	281244.287	3845760.942	D - Scrap Metal	12.06592464	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
856	K20	1/17/2007	K20-00153	281253.0421	3845739.538	C - Nail	11.96713448	Cultural Debris	Nail	2	4	Scrap Bin	6 nch nails.
857	K20	1/17/2007	K20-00154	281249.9349	3845743.768	C - Nail	11.51285984	Cultural Debris	Nail	2	4	Scrap Bin	
858	K20	1/16/2007	K20-00155	281240.3571	3845754.234	C - Nail	11.10345936	Cultural Debris	Nail	3	10	Scrap Bin	Metal ring.
859	K20	1/16/2007	K20-00156	281234.7775	3845762.325	F - Cultural, Other	11.06069931	Cultural Debris	Cultural, Other	11	12	Scrap Bin	2 - Nails, 9 - Screws.
860	K20	1/17/2007	K20-00157	281242.956	3845744.257	F - Cultural, Other	11.05533525	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Metal brackets, Screw, Bolt.
861	K20	1/17/2007	K20-00158	281240.9783	3845735.444	F - Cultural, Other	10.8320322	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Bolt, Nail.
862	K20	1/17/2007	K20-00159	281249.1061	3845736.491	F - Cultural, Other	10.7959671	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Grounding rod. Nails/Wire removed.
863	K20	1/17/2007	K20-00160	281241.3502	3845756.177	F - Cultural, Other	10.2321825	Cultural Debris	Cultural, Other	7	24	Scrap Bin	1 - Metal pipe. Nails were removed.
864	K20	1/16/2007	K20-00161	281233.4906	3845761.832	F - Cultural, Other	9.676851273	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Screws
865	K20	1/16/2007	K20-00162	281241.2993	3845762.675	F - Cultural, Other	9.177113138	Cultural Debris	Cultural, Other	2	10	Scrap Bin	
866	K20	1/17/2007	K20-00163	281237.0301	3845735.907	F - Cultural, Other	8.577738762	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Nail, Screws, Hinge.
867	K20	1/17/2007	K20-00164	281249.9984	3845735.418	F - Cultural, Other	8.492896797	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Fence post in cncrete 30 inches from flag. Nails and wire removed.
868	K20	1/17/2007	K20-00165	281257.2765	3845739.541	F - Cultural, Other	8.491882047	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Fence post in concrete.
869	K20	1/16/2007	K20-00166	281227.8047	3845754.425	D - Scrap Metal	8.388543749	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Metal ringe.
870	K20	1/17/2007	K20-00167	281237.524	3845759.687	D - Scrap Metal	8.262662888	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
871	K20	1/17/2007	K20-00168	281235.4582	3845738.563	F - Cultural, Other	8.241595268	Cultural Debris	Cultural, Other	2	2	Scrap Bin	1/2 x 3 inch rod, Nail.
872	K20	1/16/2007	K20-00169	281229.8409	3845754.502	F - Cultural, Other	8.114980698	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Screws
873	K20	1/16/2007	K20-00170	281227.7488	3845752.595	E - Wire	8.03670553	Cultural Debris	Wire	1	6	Scrap Bin	
874	K20	1/16/2007	K20-00171	281232.3022	3845743.572	D - Scrap Metal	8.002283096	Cultural Debris	Scrap Metal	4	12	Scrap Bin	1- Concrete, 3 pieces of metal.
875	K20	1/17/2007	K20-00172	281237.6336	3845758.615	C - Nail	6.904414177	Cultural Debris	Nail	9	4	Scrap Bin	
876	K20	1/16/2007	K20-00173	281236.792	3845757.767	C - Nail	6.809830558	Cultural Debris	Nail	6	4	Scrap Bin	
877	K20	1/16/2007	K20-00174	281227.9763	3845746.033	F - Cultural, Other	6.728711128	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Screw
878	K20	1/16/2007	K20-00175	281228.7624	3845754.24	C - Nail	6.15918684	Cultural Debris	Nail	2	4	Scrap Bin	
879	K20	1/17/2007	K20-00176	281232.6558	3845756.22	H - No Contact	6.156869888	No Contact	N/A	0	0	No Action Required	
880	K20	1/17/2007	K20-00177	281257.3594	3845731.845	E - Wire	5.666190829	Cultural Debris	Wire	3	4	Scrap Bin	
881	K20	1/17/2007	K20-00178	281242.1349	3845756.403	C - Nail	5.651616788	Cultural Debris	Nail	16	4	Scrap Bin	
882	K20	1/16/2007	K20-00179	281233.4747	3845742.837	F - Cultural, Other	5.468882557	Cultural Debris	Cultural, Other	2	4	Scrap Bin	2 pieces of tile.
883	K20	1/16/2007	K20-00180	281232.1258	3845762.039	C - Nail	5.333031178	Cultural Debris	Nail	2	6	Scrap Bin	
884	K20	1/17/2007	K20-00181	281255.126	3845749.676	D - Scrap Metal	5.206439972	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
885	K20	1/17/2007	K20-00182	281230.3514	3845732.709	C - Nail	5.192436986	Cultural Debris	Nail	2	6	Scrap Bin	
886	K20	1/17/2007	K20-00183	281253.2373	3845752.04	D - Scrap Metal	5.174859047	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
887	K20	1/17/2007	K20-00184	281240.1972	3845739.869	F - Cultural, Other	5.006116829	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Sign post set in concrete, 30 inches from flag. 5 Nails 12 inches from flag, removed.
888	K20	1/16/2007	K20-00185	281233.2041	3845754.673	D - Scrap Metal	4.887063026	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Metal ring.
889	K20	1/17/2007	K20-00186	281246.2147	3845748.561	C - Nail	4.561988275	Cultural Debris	Nail	4	2	Scrap Bin	
890	K20	1/16/2007	K20-00187	281235.8493	3845741.528	D - Scrap Metal	4.509166245	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
891	K20	1/17/2007	K20-00188	281251.2711	3845755.2	F - Cultural, Other	4.070328795	Cultural Debris	Cultural, Other	5	24	Scrap Bin	Metal banding
892	K20	1/17/2007	K20-00189	281246.3704	3845732.939	F - Cultural, Other	3.996478558	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Nails, spring.
893	K20	1/16/2007	K20-00190	281233.2166	3845748.412	C - Nail	3.936245456	Cultural Debris	Nail	1	6	Scrap Bin	
894	K20	1/16/2007	K20-00191	281237.0891	3845740.621	F - Cultural, Other	3.822672293	Cultural Debris	Cultural, Other	113	12	Scrap Bin	Nails, Bolt, Srew.
895	K20	1/17/2007	K20-00192	281253.0622	3845737.743	C - Nail	3.816152249	Cultural Debris	Nail	1	4	Scrap Bin	6 inch long.
896	K20	1/17/2007	K20-00193	281250.0243	3845738.209	F - Cultural, Other	3.61821266	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails, Wire, Screws.
897	K20	1/16/2007	K20-00194	281234.2118	3845748.707	F - Cultural, Other	3.39382638	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Screws, Magnet.
898	K20	1/16/2007	K20-00195	281228.9333	3845763.186	F - Cultural, Other	3.388867709	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Wheel lug nuts.
899	K20	1/17/2007	K20-00196	281253.871	3845756.439	F - Cultural, Other	3.294179201	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Screws, Nails.
900	K20	1/17/2007	K20-00197	281240.1436	3845737.46	F - Cultural, Other	3.081445456	Cultural Debris	Cultural, Other	3	6	Scrap Bin	2 - Srews, 1 - Nail,
901	K20	1/16/2007	K20-00198	281230.7549	3845762.094	F - Cultural, Other	3.016702414	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bots.
902	P16		P16-00009	281118.2477	3845919.123		745.1382104			0	0		
903	P16		P16-00010	281117.6741	3845906.215		551.9860229			0	0		
904	P16		P16-00011	281122.3593	3845893.67		499.6496887			0	0		
905	P16		P16-00012	281119.2887	3845908.439		419.084259			0	0		
906	P16		P16-00013	281120.6875	3845910.613		308.9656924			0	0		
907	P16	1/22/2007	P16-00014	281115.7123	3845914.38	F - Cultural, Other	290.3575134	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe
908	P16		P16-00015	281126.7217	3845892.122		278.8713074			0	0		
909	P16		P16-00016	281117.7897	3845897.667		272.9120789			0	0		
910	P16		P16-00017	281128.0621	3845891.306		263.1733093			0	0		
911	P16		P16-00018	281133.8809	3845899.464		261.7669678			0	0		
912	P16		P16-00019	281127.317	3845919.359		257.1642116			0	0		
913	P16		P16-00020	281124.6749	3845913.411		254.984024			0	0		
914	P16		P16-00021	281125.5624	3845916.841		249.006887			0	0		
915	P16		P16-00022	281126.9289	3845889.673		248.8971558			0	0		
916	P16		P16-00023	281129.3965	3845890.337		248.858902			0	0		
917	P16		P16-00001	281125.3266	3845899.196		101547.2344			0	0		
918	P16		P16-00002	281130.4507	3845905.246		92006.50781			0	0		
919	P16		P16-00003	281139.6386	3845894.657		1385.421021			0	0		
920	P16		P16-00004	281135.2822	3845896.357		1289.829468			0	0		
921	P16		P16-00005	281138.463	3845914.842		1099.463013			0	0		
922	P16		P16-00006	281134.9214	3845912.344		990.3921718			0	0		
923	P16		P16-00007	281132.6903	3845909.294		984.2124725			0	0		
924	P16		P16-00008	281141.0887	3845896.582		831.0532837			0	0		
925	P16		P16-00024	281138.548	3845897.904		229.8345947			0	0		
926	P16		P16-00025	281127.3617	3845904.302		228.7849426			0	0		
927	P16	1/22/2007	P16-00026	281121.9071	3845919.528	F - Cultural, Other	223.7987699	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe extends below two ft.
928	P16		P16-00027	281131.6286	3845898.934		202.072007			0	0		
929	P16		P16-00028	281111.8985	3845902.408		192.1021445			0	0		
930	P16		P16-00029	281141.4923	3845905.25		175.7733743			0	0		
931	P16		P16-00030	281128.0439	3845894.663		173.0626221			0	0		
932	P16	1/22/2007	P16-00031	281137.3134	3845919.415	F - Cultural, Other	172.8937834	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Pipe, Rebar.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
933	P16	1/22/2007	P16-00032	281136.2208	3845916	D - Scrap Metal	159.9444733	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
934	P16	1/22/2007	P16-00033	281123.1328	3845908.837	F - Cultural, Other	159.5013327	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Bolts.
935	P16		P16-00034	281133.162	3845904.375		157.5440521			0	0		
936	P16		P16-00035	281136.6105	3845899.05		152.701355			0	0		
937	P16		P16-00036	281129.2687	3845902.395		150.7105865			0	0		
938	P16		P16-00037	281135.7244	3845901.862		148.7434479			0	0		
939	P16		P16-00038	281134.868	3845905.069		140.2751617			0	0		
940	P16		P16-00039	281125.5461	3845908.494		138.5875092			0	0		
941	P16	1/22/2007	P16-00040	281121.3786	3845907.287	F - Cultural, Other	136.07724	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe extends below 2 ft.
942	P16		P16-00041	281129.0371	3845896.607		133.8921814			0	0		
943	P16		P16-00042	281117.1013	3845903.339		129.6065063			0	0		
944	P16		P16-00043	281139.1971	3845913.18		128.37289			0	0		
945	P16		P16-00044	281125.7227	3845901.469		127.466774			0	0		
946	P16		P16-00045	281112.1417	3845897.588		126.5233536			0	0		
947	P16		P16-00046	281114.5003	3845900.339		126.3703975			0	0		
948	P16		P16-00047	281126.0759	3845895.047		122.5915222			0	0		
949	P16		P16-00048	281119.2485	3845892.024		121.4320704			0	0		
950	P16		P16-00049	281124.8086	3845890.063		119.8388901			0	0		
951	P16		P16-00050	281134.6424	3845891.805		117.7458878			0	0		
952	P16		P16-00051	281124.5113	3845910.939		112.4544081			0	0		
953	P16		P16-00052	281130.1377	3845915.579		106.821041			0	0		
954	P16		P16-00053	281121.7501	3845897.508		105.5209198			0	0		
955	P16		P16-00054	281115.7122	3845902.937		104.7445831			0	0		
956	P16	1/22/2007	P16-00055	281142.1978	3845912.862	G - Below 2 ft	101.9752121	Other	Below 2 ft	0	0	No Action Required	
957	P16	1/22/2007	P16-00056	281130.8286	3845910.876	D - Scrap Metal	96.75805664	Cultural Debris	Scrap Metal	1	1	Scrap Bin	
958	P16	1/22/2007	P16-00057	281114.2866	3845916.878	F - Cultural, Other	92.38489532	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Tent stake.
959	P16	1/22/2007	P16-00058	281129.8108	3845893.067	F - Cultural, Other	86.81484222	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Barrel top, wire.
960	P16	1/22/2007	P16-00059	281119.7397	3845915.897	F - Cultural, Other	86.43917084	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Cable left in place. Pipe.
961	P16	1/22/2007	P16-00060	281117.3574	3845917.365	F - Cultural, Other	85.28964233	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Cable.
962	P16		P16-00061	281137.4653	3845893.859		84.12115308			0	0		
963	P16	1/22/2007	P16-00062	281112.3491	3845914.209	F - Cultural, Other	78.97580719	Cultural Debris	Cultural, Other	3	6	Scrap Bin	4ft Pipe, Scrap metal.
964	P16		P16-00063	281132.2797	3845915.206		78.88032741			0	0		
965	P16	1/22/2007	P16-00064	281126.6964	3845912.841	F - Cultural, Other	78.05167422	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
966	P16		P16-00065	281140.0104	3845903.948		74.8090744			0	0		
967	P16		P16-00066	281124.2847	3845896.034		72.47576141			0	0		
968	P16	1/22/2007	P16-00067	281140.4856	3845900.573	F - Cultural, Other	71.33860779	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Reinforced concrete.
969	P16	1/22/2007	P16-00068	281124.6018	3845919.211	F - Cultural, Other	70.98931122	Cultural Debris	Cultural, Other	4	18	Scrap Bin	Cable left in place. Scrap metal removed.
970	P16	1/22/2007	P16-00069	281137.1528	3845904.978	F - Cultural, Other	70.54982758	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Concrete, Screw, Nails.
971	P16	1/22/2007	P16-00070	281139.6022	3845908.999	F - Cultural, Other	70.11776733	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe continues down below two feet.
972	P16		P16-00071	281114.1019	3845896.376		67.12784521			0	0		
973	P16		P16-00072	281125.9097	3845909.948		66.32596517			0	0		
974	P16	1/22/2007	P16-00073	281128.2572	3845899.994	F - Cultural, Other	63.84535217	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Grounding rod.
975	P16		P16-00074	281139.736	3845893.28		59.3912735			0	0		
976	P16	1/22/2007	P16-00075	281127.739	3845914.333	F - Cultural, Other	57.90091222	Cultural Debris	Cultural, Other	1	12	Scrap Bin	File.
977	P16		P16-00076	281136.5703	3845890.06		57.49817127			0	0		
978	P16		P16-00077	281111.8162	3845905.743		56.56077422			0	0		
979	P16	1/22/2007	P16-00078	281130.018	3845894.431	F - Cultural, Other	56.35620499	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete.
980	P16		P16-00079	281133.5335	3845902.213		54.96079303			0	0		
981	P16	1/22/2007	P16-00080	281127.3069	3845910.559	F - Cultural, Other	53.61664963	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe extends below two ft.
982	P16		P16-00081	281132.8689	3845889.202		52.90849515			0	0		
983	P16		P16-00082	281125.629	3845903.536		52.86102976			0	0		
984	P16		P16-00083	281141.5883	3845893.816		52.74497223			0	0		
985	P16		P16-00084	281131.9311	3845892.677		52.12685394			0	0		
986	P16	1/22/2007	P16-00085	281140.236	3845917.212	F - Cultural, Other	52.06030655	Cultural Debris	Cultural, Other	6	4	Scrap Bin	4 Bollts, 2 Wires.
987	P16		P16-00086	281116.4232	3845895.085		51.68988292			0	0		
988	P16		P16-00087	281120.3548	3845896.954		51.60467529			0	0		
989	P16	1/22/2007	P16-00088	281114.8042	3845891.684	F - Cultural, Other	49.85706711	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Hammer.
990	P16		P16-00089	281112.5074	3845906.727		49.51326752			0	0		
991	P16		P16-00090	281130.2129	3845899.494		48.94893846			0	0		
992	P16		P16-00091	281119.0312	3845893.782		48.19579833			0	0		
993	P16		P16-00092	281133.2293	3845917.493		47.88417435			0	0		
994	P16		P16-00093	281117.8684	3845891.671		47.79701216			0	0		
995	P16	1/22/2007	P16-00094	281136.9335	3845903.309	F - Cultural, Other	47.07949448	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Reinforced concrete.
996	P16		P16-00095	281132.7659	3845894.474		47.04640961			0	0		
997	P16		P16-00096	281129.1166	3845917.657		46.73497009			0	0		
998	P16		P16-00097	281115.8544	3845893.454		46.2383491			0	0		
999	P16		P16-00098	281112.0893	3845907.769		45.79490132			0	0		
1000	P16		P16-00099	281117.8405	3845894.573		45.02485151			0	0		
1001	P16		P16-00100	281135.7635	3845893.134		44.43710327			0	0		
1002	P16		P16-00101	281134.7706	3845906.446		43.25163651			0	0		
1003	P16		P16-00102	281114.2316	3845904.064		41.583992			0	0		
1004	P16		P16-00103	281113.8234	3845905.301		41.50151443			0	0		
1005	P16		P16-00104	281119.7567	3845898.738		40.54971038			0	0		
1006	P16	1/22/2007	P16-00105	281120.9644	3845919.814	H - No Contact	39.40102386	No Contact	N/A	0	0	No Action Required	
1007	P16	1/22/2007	P16-00106	281142.4553	3845919.137	C - Nail	38.29663248	Cultural Debris	Nail	1	6	Scrap Bin	
1008	P16		P16-00107	281118.1203	3845900.362		37.17073828			0	0		
1009	P16	1/22/2007	P16-00108	281135.7271	3845903.662	F - Cultural, Other	36.70669556	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Reinforced cconcrete.
1010	P16	1/22/2007	P16-00109	281140.0345	3845889.301	F - Cultural, Other	36.63918304	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bolt.
1011	P16		P16-00110	281118.7707	3845899.306		35.539505			0	0		
1012	P16	1/22/2007	P16-00111	281141.8079	3845910.742	E - Wire	34.64730072	Cultural Debris	Wire	1	4	Scrap Bin	
1013	P16		P16-00112	281134.0619	3845919.017		34.53663389			0	0		
1014	P16	1/22/2007	P16-00113	281114.5547	3845915.951	D - Scrap Metal	33.77264404	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
1015	P16	1/22/2007	P16-00114	281114.2272	3845889.924	D - Scrap Metal	33.13761487	Cultural Debris	Scrap Metal	3	1	Scrap Bin	Cable at 12 inches left in place.
1016	P16		P16-00115	281131.2245	3845901.706		32.48561478			0	0		
1017	P16	1/22/2007	P16-00116	281135.776	3845906.15	F - Cultural, Other	30.33103549	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Reinforced concrete.
1018	P16	1/22/2007	P16-00117	281141.9052	3845897.922	D - Scrap Metal	30.2220993	Cultural Debris	Scrap Metal	2	6	Scrap Bin	8 inch metal rod.
1019	P16	1/22/2007	P16-00118	281117.2204	3845889.852	F - Cultural, Other	29.63939136	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Screws, Can.
1020	P16	1/22/2007	P16-00119	281137.9815	3845906.623	F - Cultural, Other	29.50212479	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Lg. Utility pipe.
1021	P16	1/22/2007	P16-00120	281120.5497	3845890.386	F - Cultural, Other	29.49299812	Cultural Debris	Cultural, Other	7	4	Scrap Bin	Nails, Wire.
1022	P16	1/22/2007	P16-00121	281140.248	3845906.075	F - Cultural, Other	28.93952942	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Reinforced concrete.
1023	P16	1/22/2007	P16-00122	281139.3524	3845910.382	C - Nail	27.40503311	Cultural Debris	Nail	6	4	Scrap Bin	
1024	P16	1/22/2007	P16-00123	281121.7669	3845889.67	F - Cultural, Other	26.28362192	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Washer, Nail.
1025	P16	1/22/2007	P16-00124	281111.285	3845890.065	C - Nail	26.20630821	Cultural Debris	Nail	6	4	Scrap Bin	
1026	P16	1/22/2007	P16-00125	281122.2618	3845891.233	C - Nail	25.77730942	Cultural Debris	Nail	1	6	Scrap Bin	
1027	P16	1/22/2007	P16-00126	281138.469	3845911.18	C - Nail	23.90989685	Cultural Debris	Nail	1	4	Scrap Bin	
1028	P16	1/22/2007	P16-00127	281113.6651	3845912.783	E - Wire	22.86765289	Cultural Debris	Wire	2	12	Scrap Bin	
1029	P16	1/22/2007	P16-00128	281120.3062	3845903.364	F - Cultural, Other	21.18401718	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Metal, Cable, Nail.
1030	P16	1/22/2007	P16-00129	281137.6403	3845909.535	C - Nail	19.94259071	Cultural Debris	Nail	7	4	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1031	P16	1/22/2007	P16-00130	281116.1206	3845916.957	F - Cultural, Other	19.47417068	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Cable left in place. Scrap metal removed.
1032	P16	1/22/2007	P16-00131	281138.3835	3845901.42	F - Cultural, Other	18.35662651	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete,
1033	P16	1/22/2007	P16-00132	281120.8118	3845900.75	C - Nail	18.04154015	Cultural Debris	Nail	2	6	Scrap Bin	Nails.
1034	P16	1/22/2007	P16-00133	281119.3137	3845902.039	G - Below 2 ft	17.77932541	Other	Below 2 ft	0	24	No Action Required	
1035	P16	1/22/2007	P16-00134	281121.9049	3845915.286	C - Nail	17.31424654	Cultural Debris	Nail	1	2	Scrap Bin	Lg. Nail.
1036	P16	1/22/2007	P16-00135	281113.4762	3845908.061	D - Scrap Metal	17.11249924	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
1037	P16	1/22/2007	P16-00136	281125.6253	3845907.036	D - Scrap Metal	16.97371757	Cultural Debris	Scrap Metal	2	2	Scrap Bin	Rebar, Nail.
1038	P16	1/22/2007	P16-00137	281125.2771	3845905.516	F - Cultural, Other	16.79020729	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolts, Nails, Wire.
1039	P16	1/22/2007	P16-00138	281112.5867	3845912.521	F - Cultural, Other	16.38896179	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Cable
1040	P16	1/29/2007	P16-00139	281114.1218	3845893.694		15.74444008	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Hatchet
1041	P16	1/22/2007	P16-00140	281127.5388	3845909.332	D - Scrap Metal	15.26978827	Cultural Debris	Scrap Metal	2	2	Scrap Bin	
1042	P16	1/22/2007	P16-00141	281138.2493	3845890.44	F - Cultural, Other	15.03805733	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pipe.
1043	P16	1/22/2007	P16-00142	281116.5532	3845920.143	H - No Contact	14.87922287	No Contact	N/A	0	0	No Action Required	
1044	P16	1/22/2007	P16-00143	281120.1113	3845913.746	C - Nail	14.83046436	Cultural Debris	Nail	4	4	Scrap Bin	
1045	P16	1/22/2007	P16-00144	281122.6945	3845902.048	D - Scrap Metal	14.79801083	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
1046	P16	1/22/2007	P16-00145	281124.626	3845904.564	C - Nail	14.69358349	Cultural Debris	Nail	3	2	Scrap Bin	
1047	P16	1/22/2007	P16-00146	281141.4884	3845908.151	C - Nail	13.72586102	Cultural Debris	Nail	2	6	Scrap Bin	
1048	P16	1/22/2007	P16-00147	281120.7498	3845914.565	D - Scrap Metal	13.48583807	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
1049	P16	1/29/2007	P16-00148	281141.5996	3845916.319		12.96240418	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Nail, Screw, Wire
1050	P16	1/22/2007	P16-00149	281116.4007	3845908.707	C - Nail	12.75677872	Cultural Debris	Nail	4	6	Scrap Bin	
1051	P16	1/22/2007	P16-00150	281131.261	3845896.336	F - Cultural, Other	11.81053898	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Reinforced concrete.
1052	P16	1/22/2007	P16-00151	281111.5445	3845894.103	F - Cultural, Other	11.05696011	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nut, Screws.
1053	P16	1/22/2007	P16-00152	281121.3114	3845901.798	F - Cultural, Other	9.594958305	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bolt.
1054	P16	1/22/2007	P16-00153	281115.4442	3845911.492	D - Scrap Metal	9.133953094	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
1055	P16	1/22/2007	P16-00154	281127.0449	3845907.823	F - Cultural, Other	8.666928291	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Wire, Bolt.
1056	P16	1/22/2007	P16-00155	281121.9816	3845899.482	F - Cultural, Other	8.368067741	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Wire, Screw, Chain link.
1057	P16	1/22/2007	P16-00156	281140.0894	3845890.672	C - Nail	8.196653366	Cultural Debris	Nail	3	12	Scrap Bin	
1058	P16	1/22/2007	P16-00157	281114.5729	3845908.78	C - Nail	7.475288391	Cultural Debris	Nail	1	6	Scrap Bin	
1059	P16	1/22/2007	P16-00158	281131.1472	3845912.663	F - Cultural, Other	6.708309262	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Screws, Nails.
1060	P16	1/22/2007	P16-00159	281116.1083	3845912.838	E - Wire	6.707473278	Cultural Debris	Wire	1	6	Scrap Bin	
1061	P16	1/22/2007	P16-00160	281115.755	3845919.26	F - Cultural, Other	6.617156982	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolts.
1062	P16	1/22/2007	P16-00161	281114.9447	3845918.072	F - Cultural, Other	6.495235443	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Cable at two feet.
1063	P16	1/22/2007	P16-00162	281114.2195	3845911.388	F - Cultural, Other	6.373355389	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Wire, Nails.
1064	P16	1/22/2007	P16-00163	281121.0751	3845905.324	C - Nail	6.363929815	Cultural Debris	Nail	5	6	Scrap Bin	
1065	P16	1/22/2007	P16-00164	281124.7418	3845907.458	F - Cultural, Other	5.69397831	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Nail, Screw.
1066	P16	1/22/2007	P16-00165	281138.7177	3845916.77	D - Scrap Metal	5.35079065	Cultural Debris	Scrap Metal	2	18	Scrap Bin	
1067	P16	1/22/2007	P16-00166	281139.2002	3845918.017	F - Cultural, Other	3.812838316	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nail, Hook.
1068	P16	1/22/2007	P16-00167	281114.0185	3845910.175	D - Scrap Metal	3.395427942	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
1069	P16	1/22/2007	P16-00168	281122.1159	3845918.09	D - Scrap Metal	3.248911619	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1070	J13		J13-00001	281027.1931	3845734.386		43117.92578			0	0		
1071	J13		J13-00002	281021.9411	3845732.766		2139.33667			0	0		
1072	J13		J13-00003	281042.3926	3845721.058		1524.039575			0	0		
1073	J13		J13-00004	281017.3904	3845741.138		953.0177			0	0		
1074	J13		J13-00005	281034.1496	3845730.439		880.7994461			0	0		
1075	J13		J13-00006	281028.6798	3845737.226		696.4558716			0	0		
1076	J13		J13-00007	281043.1141	3845729.115		655.8999811			0	0		
1077	J13		J13-00008	281028.9661	3845729.128		596.3267822			0	0		
1078	J13		J13-00009	281013.3854	3845728.674		564.9226368			0	0		
1079	J13		J13-00010	281035.5819	3845725.666		455.2976302			0	0		
1080	J13		J13-00011	281015.9276	3845738.804		361.7569275			0	0		
1081	J13	1/24/2007	J13-00012	281025.3772	3845711.88	F - Cultural, Other	273.9154968	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Concrete with post.
1082	J13		J13-00013	281030.7033	3845725.172		194.5255951			0	0		
1083	J13		J13-00014	281028.0763	3845714.518		184.7949219			0	0		
1084	J13		J13-00015	281022.7983	3845737.329		153.7933053			0	0		
1085	J13		J13-00016	281031.5921	3845733.172		142.0293071			0	0		
1086	J13		J13-00017	281013.6014	3845737.625		127.6173032			0	0		
1087	J13		J13-00018	281023.0869	3845721.831		127.5136526			0	0		
1088	J13		J13-00019	281030.3711	3845735.532		122.6292579			0	0		
1089	J13		J13-00020	281019.734	3845738.056		122.4296604			0	0		
1090	J13		J13-00021	281019.8938	3845723.541		112.0808029			0	0		
1091	J13		J13-00022	281031.2813	3845722.17		110.6718903			0	0		
1092	J13		J13-00023	281034.992	3845738.651		110.5580368			0	0		
1093	J13		J13-00024	281032.9387	3845736.903		100.1177673			0	0		
1094	J13		J13-00025	281015.0441	3845735.788		93.75432587			0	0		
1095	J13		J13-00026	281037.6456	3845728.948		92.4090005			0	0		
1096	J13		J13-00027	281040.134	3845714.645		86.13106537			0	0		
1097	J13		J13-00028	281029.6666	3845716.132		84.77993774			0	0		
1098	J13		J13-00029	281043.0038	3845713.92		82.76194763			0	0		
1099	J13		J13-00030	281031.3299	3845711.946		82.65810394			0	0		
1100	J13		J13-00031	281032.7069	3845715.858		82.13860321			0	0		
1101	J13		J13-00032	281029.8413	3845713.156		73.18133793			0	0		
1102	J13		J13-00033	281040.2683	3845729.439		72.75512695			0	0		
1103	J13		J13-00034	281032.9385	3845721.646		69.04068756			0	0		
1104	J13		J13-00035	281027.1254	3845720.392		66.67064571			0	0		
1105	J13	1/25/2007	J13-00036	281035.3576	3845736.348	F - Cultural, Other	64.02049255	Cultural Debris	Cultural, Other	11	12	Scrap Bin	Plow part, Banding material, Nails .
1106	J13		J13-00037	281020.9846	3845739.364		62.99307251			0	0		
1107	J13		J13-00038	281039.51	3845734.669		62.63018712			0	0		
1108	J13		J13-00039	281027.8387	3845716.205		60.3027153			0	0		
1109	J13	1/24/2007	J13-00040	281021.0698	3845730.054	F - Cultural, Other	57.89759064	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Chain llink.
1110	J13		J13-00041	281040.3449	3845727.045		56.43560214			0	0		
1111	J13	1/24/2007	J13-00042	281033.4014	3845710.338	C - Nail	55.48674774	Cultural Debris	Nail	1	6	Scrap Bin	
1112	J13		J13-00043	281037.8188	3845713.975		52.85307693			0	0		
1113	J13		J13-00044	281028.6187	3845724.26		51.96440887			0	0		
1114	J13		J13-00045	281030.9118	3845716.895		51.15694649			0	0		
1115	J13	1/24/2007	J13-00046	281017.5604	3845733.856	F - Cultural, Other	49.65002823	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Large piece of concrete.
1116	J13	1/24/2007	J13-00047	281026.797	3845724.486	D - Scrap Metal	45.98089218	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1117	J13		J13-00048	281028.186	3845717.259		45.7142868			0	0		
1118	J13		J13-00049	281025.1399	3845736.452		43.92481613			0	0		
1119	J13	1/25/2007	J13-00050	281028.5847	3845740.711	F - Cultural, Other	42.35829838	Cultural Debris	Cultural, Other	7	6	Scrap Bin	Bolt, Nuts,Nail.
1120	J13	1/24/2007	J13-00051	281019.3698	3845725.698	F - Cultural, Other	40.69071198	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Scrap metal, Communication cable.
1121	J13	1/25/2007	J13-00052	281037.9471	3845740.059	F - Cultural, Other	37.1352272	Cultural Debris	Cultural, Other	5	6	Scrap Bin	
1122	J13	1/24/2007	J13-00053	281026.3825	3845714.128	C - Nail	32.34677124	Cultural Debris	Nail	1	12	Scrap Bin	
1123	J13	1/25/2007	J13-00054	281030.5563	3845719.723	D - Scrap Metal	31.27964852	Cultural Debris	Scrap Metal	9	6	Scrap Bin	Nails, Scrap metal, Communication cable.
1124	J13	1/24/2007	J13-00055	281042.2851	3845709.732	F - Cultural, Other	31.25432542	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Water pipe.
1125	J13	1/24/2007	J13-00056	281033.6331	3845723.754	F - Cultural, Other	28.41314697	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Communication cable.
1126	J13	1/24/2007	J13-00057	281025.2048	3845710.415	C - Nail	28.12911112	Cultural Debris	Nail	1	6	Scrap Bin	
1127	J13	1/24/2007	J13-00058	281023.6651	3845711.033	F - Cultural, Other	27.07167625	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Power cable.
1128	J13	1/24/2007	J13-00059	281025.6246	3845713.457	C - Nail	26.00027592	Cultural Debris	Nail	1	4	Scrap Bin	
1129	J13	1/24/2007	J13-00060	281038.0991	3845720.982	F - Cultural, Other	25.50436592	Cultural Debris	Cultural, Other	1	4	Scrap Bin	10 inch bolt.
1130	J13	1/24/2007	J13-00061	281041.6096	3845712.791	F - Cultural, Other	22.94594359	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Sewer pipe connection , Concrete.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1131	J13	1/24/2007	J13-00062	281034.2971	3845713.658	F - Cultural, Other	22.54079247	Cultural Debris	Cultural, Other	4	10	Scrap Bin	Bolt, Nails.
1132	J13	1/25/2007	J13-00063	281037.0636	3845737.043	D - Scrap Metal	20.85265732	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1133	J13	1/24/2007	J13-00064	281042.4554	3845711.654	F - Cultural, Other	19.91377449	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Concrete, Nails.
1134	J13	1/25/2007	J13-00065	281025.6944	3845738.871	F - Cultural, Other	18.22704315	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolt, Nail, Wire, Cable.
1135	J13	1/24/2007	J13-00066	281019.4308	3845731.035	F - Cultural, Other	16.66352844	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Wire, Nails.
1136	J13	1/24/2007	J13-00067	281026.7663	3845712.282	C - Nail	16.37103081	Cultural Debris	Nail	6	24	Scrap Bin	
1137	J13	1/24/2007	J13-00068	281024.9571	3845739.511	F - Cultural, Other	15.23084545	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Bolt, Nails.
1138	J13	1/24/2007	J13-00069	281034.8638	3845716.382	F - Cultural, Other	15.20931244	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Communication cable.
1139	J13	1/25/2007	J13-00070	281030.3736	3845737.616	F - Cultural, Other	15.20531368	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Bolt, Nail.
1140	J13	1/24/2007	J13-00071	281031.4213	3845714.231	F - Cultural, Other	15.04833508	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Bolts, Wire, Nail.
1141	J13	1/24/2007	J13-00072	281033.2797	3845718.734	C - Nail	14.49847984	Cultural Debris	Nail	5	12	Scrap Bin	
1142	J13	1/25/2007	J13-00073	281036.8869	3845740.254	C - Nail	14.11904049	Cultural Debris	Nail	3	6	Scrap Bin	
1143	J13	1/24/2007	J13-00074	281024.1343	3845712.107	F - Cultural, Other	13.31735679	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Screws, Nail.
1144	J13	1/24/2007	J13-00075	281031.2628	3845710.271	C - Nail	12.14709759	Cultural Debris	Nail	1	6	Scrap Bin	
1145	J13	1/24/2007	J13-00076	281036.2773	3845713.579	F - Cultural, Other	11.79375362	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Concrete .
1146	J13	1/24/2007	J13-00077	281028.8228	3845710.297	C - Nail	11.15922538	Cultural Debris	Nail	8	6	Scrap Bin	
1147	J13	1/24/2007	J13-00078	281036.2102	3845711.904	C - Nail	11.1127224	Cultural Debris	Nail	2	6	Scrap Bin	
1148	J13	1/24/2007	J13-00079	281026.3949	3845725.875	C - Nail	10.61657715	Cultural Debris	Nail	5	6	Scrap Bin	Nails, Wire.
1149	J13	1/24/2007	J13-00080	281013.4051	3845732.955	F - Cultural, Other	10.53652287	Cultural Debris	Cultural, Other	2	1	Scrap Bin	Concrete. Wire removed
1150	J13	1/24/2007	J13-00081	281017.6762	3845736.751	F - Cultural, Other	10.24697781	Cultural Debris	Cultural, Other	7	4	Scrap Bin	Nails, Metal disk.
1151	J13	1/24/2007	J13-00082	281016.1468	3845732.845	F - Cultural, Other	9.818775177	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Wire, NAIL:
1152	J13	1/24/2007	J13-00083	281035.0625	3845721.325	F - Cultural, Other	9.66867919	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Communication cable. Nails, screw removed.
1153	J13	1/24/2007	J13-00084	281042.0007	3845717.244	F - Cultural, Other	9.389197493	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Screws, Wire.
1154	J13	1/24/2007	J13-00085	281033.4563	3845711.709	F - Cultural, Other	9.352196693	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolt, Nails .
1155	J13	1/24/2007	J13-00086	281016.6891	3845731.145	F - Cultural, Other	8.967484474	Cultural Debris	Cultural, Other	1	4	Scrap Bin	12 iinch metal rod.
1156	J13	1/24/2007	J13-00087	281030.0808	3845711.234	F - Cultural, Other	8.765760422	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Nail, Brick.
1157	J13	1/24/2007	J13-00088	281036.4569	3845717.625	C - Nail	8.667015791	Cultural Debris	Nail	3	8	Scrap Bin	
1158	J13	1/24/2007	J13-00089	281025.6637	3845726.667	C - Nail	8.453587532	Cultural Debris	Nail	2	6	Scrap Bin	
1159	J13	1/24/2007	J13-00090	281014.91	3845732.437	F - Cultural, Other	7.774673462	Cultural Debris	Cultural, Other	1	10	Scrap Bin	Bottle cap.
1160	J13	1/24/2007	J13-00091	281035.4605	3845710.005	C - Nail	7.726569261	Cultural Debris	Nail	2	12	Scrap Bin	
1161	J13	1/24/2007	J13-00092	281039.7502	3845712.677	D - Scrap Metal	7.609548092	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
1162	J13	1/24/2007	J13-00093	281020.8991	3845721.975	F - Cultural, Other	7.394498348	Cultural Debris	Cultural, Other	1	2	Scrap Bin	30 inch chain.
1163	J13	1/24/2007	J13-00094	281028.0093	3845712.842	C - Nail	7.355349541	Cultural Debris	Nail	1	6	Scrap Bin	
1164	J13	1/24/2007	J13-00095	281035.5828	3845714.389	F - Cultural, Other	7.056725702	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails, Bolt.
1165	J13	1/25/2007	J13-00096	281032.5915	3845739.663	C - Nail	6.787335396	Cultural Debris	Nail	1	4	Scrap Bin	
1166	J13	1/24/2007	J13-00097	281039.3907	3845711.319	C - Nail	6.535034657	Cultural Debris	Nail	2	6	Scrap Bin	
1167	J13		J13-00098	281023.3973	3845734.843		5.915528774			0	0		
1168	J13	1/24/2007	J13-00099	281021.4267	3845726.148	F - Cultural, Other	5.344748413	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Nails, Wire, Concrete.
1169	J13	1/24/2007	J13-00100	281038.2026	3845712.129	C - Nail	5.231909752	Cultural Debris	Nail	2	6	Scrap Bin	
1170	J13	1/24/2007	J13-00101	281042.9368	3845716.059	H - No Contact	5.021552563	No Contact	N/A	0	0	No Action Required	
1171	J13	1/24/2007	J13-00102	281023.2953	3845725.041	D - Scrap Metal	4.699074546	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1172	J13	1/24/2007	J13-00103	281043.5288	3845725.066	D - Scrap Metal	4.483073072	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
1173	J13	1/24/2007	J13-00104	281023.7462	3845728.327	C - Nail	4.249301532	Cultural Debris	Nail	1	4	Scrap Bin	
1174	J13	1/24/2007	J13-00105	281035.4244	3845718.953	F - Cultural, Other	4.083879948	Cultural Debris	Cultural, Other	4	18	Scrap Bin	Communication cable.
1175	J13	1/24/2007	J13-00106	281037.7975	3845717.891	D - Scrap Metal	3.262639955	Cultural Debris	Scrap Metal	4	10	Scrap Bin	
1176	J13	1/24/2007	J13-00107	281025.6576	3845722.7	F - Cultural, Other	3.201871872	Cultural Debris	Cultural, Other	1	6	Scrap Bin	
1177	I12		I12-00001	281007.6284	3845687.722		991.9447632			0	0		
1178	I12		I12-00002	281001.298	3845689.653		851.967041			0	0		
1179	I12		I12-00003	280996.1619	3845698.555		709.8190308			0	0		
1180	I12		I12-00004	280990.4774	3845709.004		523.8463745			0	0		
1181	I12		I12-00005	281003.8686	3845687.561		370.4431768			0	0		
1182	I12		I12-00006	281002.0169	3845680.928		363.664093			0	0		
1183	I12		I12-00007	281000.9702	3845686.296		295.9774074			0	0		
1184	I12		I12-00008	280981.6146	3845697.167		269.3930035			0	0		
1185	I12		I12-00009	280995.9607	3845693.528		259.5427551			0	0		
1186	I12		I12-00010	280984.7333	3845692.44		242.5802514			0	0		
1187	I12		I12-00011	280999.0255	3845701.492		242.429718			0	0		
1188	I12		I12-00012	280987.644	3845681.445		214.985378			0	0		
1189	I12		I12-00013	280986.574	3845703.211		212.5452625			0	0		
1190	I12		I12-00014	281002.5923	3845691.611		187.2653686			0	0		
1191	I12		I12-00015	280983.6775	3845683.951		136.720459			0	0		
1192	I12		I12-00016	281000.0203	3845681.962		135.1684919			0	0		
1193	I12		I12-00017	280988.5457	3845687.417		124.2466049			0	0		
1194	I12		I12-00018	280987.7537	3845694.314		108.477005			0	0		
1195	I12	1/25/2007	I12-00019	280986.1649	3845711.22	F - Cultural, Other	104.6986653	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Metal bracket.
1196	I12	1/25/2007	I12-00020	280996.4783	3845683.312	D - Scrap Metal	99.71805919	Cultural Debris	Scrap Metal	4	12	Scrap Bin	
1197	I12		I12-00021	280994.4985	3845695.112		91.9362793			0	0		
1198	I12		I12-00022	280983.1169	3845690.865		91.05518719			0	0		
1199	I12	1/25/2007	I12-00023	281004.5568	3845689.662	D - Scrap Metal	89.54319813	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
1200	I12		I12-00024	280985.5409	3845696.09		85.30172317			0	0		
1201	I12		I12-00025	281008.8957	3845685.077		77.57247925			0	0		
1202	I12		I12-00026	280980.9307	3845682.432		73.65168427			0	0		
1203	I12	1/25/2007	I12-00027	281006.3003	3845692.657	D - Scrap Metal	63.840271	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1204	I12	1/25/2007	I12-00028	281000.1892	3845692.444	D - Scrap Metal	63.27856827	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
1205	I12		I12-00029	280983.5924	3845704.703		57.10163498			0	0		
1206	I12		I12-00030	281008.0611	3845690.908		55.77550507			0	0		
1207	I12		I12-00031	281010.3336	3845686.698		55.15945053			0	0		
1208	I12		I12-00032	280982.6152	3845703.485		51.65503138			0	0		
1209	I12	1/25/2007	I12-00033	280993.9622	3845689.336	F - Cultural, Other	50.85421753	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Grounding rod, Cables.
1210	I12	1/25/2007	I12-00034	280984.6584	3845681.775	F - Cultural, Other	50.52835846	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Cable, Elctric line, Grounding rod.
1211	I12		I12-00035	280982.4044	3845705.513		46.11036682			0	0		
1212	I12	1/25/2007	I12-00036	280989.1673	3845695.326	F - Cultural, Other	45.40712738	Cultural Debris	Cultural, Other	16	12	Scrap Bin	Bolts.
1213	I12	1/25/2007	I12-00037	280988.1132	3845695.673	F - Cultural, Other	43.24508286	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Brass drain cover, Nails.
1214	I12	1/25/2007	I12-00038	280989.5511	3845693.48	F - Cultural, Other	40.63219452	Cultural Debris	Cultural, Other	2	18	Scrap Bin	Concrete. Wire removed.
1215	I12	1/25/2007	I12-00039	280984.8537	3845705.72	F - Cultural, Other	40.14857483	Cultural Debris	Cultural, Other	12	24	Scrap Bin	Bolts , Nails , Banding material. Scrap metal.
1216	I12	1/25/2007	I12-00040	280991.8477	3845696.269	F - Cultural, Other	40.04158657	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Bolts, Nails, fencing.
1217	I12	1/25/2007	I12-00041	280986.9756	3845682.34	D - Scrap Metal	40.03052545	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
1218	I12	1/25/2007	I12-00042	281008.5038	3845681.91	F - Cultural, Other	39.83962359	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Steel rod. Filter. Communication Cable left in place.
1219	I12	1/25/2007	I12-00043	281007.6528	3845684.517	F - Cultural, Other	38.61372375	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Metal rebar.
1220	I12	1/25/2007	I12-00044	280984.628	3845684.828	D - Scrap Metal	38.61338425	Cultural Debris	Scrap Metal	9	18	Scrap Bin	
1221	I12	1/25/2007	I12-00045	281006.4768	3845681.818	F - Cultural, Other	38.51077652	Cultural Debris	Cultural, Other	2	18	Scrap Bin	Pipe, Nail.
1222	I12	1/25/2007	I12-00046	281006.9339	3845689.428	F - Cultural, Other	38.06874466	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Communication cable.
1223	I12	1/25/2007	I12-00047	280987.1229	3845697.522	F - Cultural, Other	36.07954504	Cultural Debris	Cultural, Other	2	18	Scrap Bin	Bolt, Nail.
1224	I12	1/25/2007	I12-00048	281001.2859	3845693.163	D - Scrap Metal	34.60279083	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1225	I12	1/25/2007	I12-00049	280996.631	3845695.027	F - Cultural, Other	33.98339081	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nut, Nail.
1226	I12	1/25/2007	I12-00050	280997.624	3845685.528	C - Nail	33.37501907	Cultural Debris	Nail	3	12	Scrap Bin	
1227	I12	1/25/2007	I12-00051	280987.3514	3845689.574	F - Cultural, Other	32.74445979	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Nail, Bolt.

Appendix D
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Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1228	I12		I12-00052	280982.6723	3845693.145		32.05939484			0	0		
1229	I12	1/25/2007	I12-00053	280993.5113	3845681.879	F - Cultural, Other	30.77614784	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Pipe, Nails.
1230	I12	1/25/2007	I12-00054	280981.8987	3845708.127	F - Cultural, Other	29.80195236	Cultural Debris	Cultural, Other	4	24	Scrap Bin	Metal rod. Nails removed.
1231	I12	1/25/2007	I12-00055	280989.5755	3845697.903	E - Wire	29.22677231	Cultural Debris	Wire	3	2	Scrap Bin	
1232	I12	1/25/2007	I12-00056	280992.9415	3845695.564	F - Cultural, Other	28.89966151	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Bolts, Nut.
1233	I12	1/25/2007	I12-00057	280982.3496	3845711.77	F - Cultural, Other	27.72871017	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nail, Screw.
1234	I12	1/25/2007	I12-00058	280991.1778	3845684.566	F - Cultural, Other	27.59298897	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Pipe at 24 inches. Bolt removed.
1235	I12	1/25/2007	I12-00059	280992.9023	3845704.788	F - Cultural, Other	26.57018662	Cultural Debris	Cultural, Other	1	1	Scrap Bin	Reinforced concrete.
1236	I12	1/25/2007	I12-00060	281002.285	3845683.816	F - Cultural, Other	26.52087975	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Metal post in concrete. Bolt removed.
1237	I12	1/25/2007	I12-00061	280999.2447	3845684.09	C - Nail	26.35131836	Cultural Debris	Nail	2	18	Scrap Bin	10 inch nail.
1238	I12	1/25/2007	I12-00062	280992.9255	3845688.689	C - Nail	25.64755326	Cultural Debris	Nail	3	2	Scrap Bin	
1239	I12	1/25/2007	I12-00063	281011.5597	3845689.986	F - Cultural, Other	25.5930444	Cultural Debris	Cultural, Other	3	24	Scrap Bin	Pipe at 24 inches . Nails removed .
1240	I12	1/25/2007	I12-00064	280982.8245	3845685.51	F - Cultural, Other	25.0386734	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolt, Wire.
1241	I12	1/25/2007	I12-00065	280986.529	3845686.583	F - Cultural, Other	24.21188164	Cultural Debris	Cultural, Other	6	24	Scrap Bin	Auger, Concrete, Scrap metal.
1242	I12	1/25/2007	I12-00066	280986.3524	3845693.608	G - Below 2 ft	24.08441734	Other	Below 2 ft	0	24	No Action Required	
1243	I12	1/25/2007	I12-00067	280990.9647	3845698.305		23.66451454	QC Item	QC Item	5	24	Scrap Bin	CH2MHill QC item #13. Nails.
1244	I12	1/25/2007	I12-00068	280984.9573	3845708.31	F - Cultural, Other	23.47928429	Cultural Debris	Cultural, Other	3	24	Scrap Bin	Asphalt layer. Nails, Scrap metal.
1245	I12	1/25/2007	I12-00069	281010.2544	3845684.718	D - Scrap Metal	22.51469612	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1246	I12	1/25/2007	I12-00070	280997.1365	3845680.971	E - Wire	22.50006104	Cultural Debris	Wire	2	12	Scrap Bin	Wire, Nail.
1247	I12	1/25/2007	I12-00071	280984.8146	3845682.995	D - Scrap Metal	22.31938593	Cultural Debris	Scrap Metal	5	4	Scrap Bin	Bolts, Nuts, Banding wire.
1248	I12	1/25/2007	I12-00072	281000.8107	3845700.352	F - Cultural, Other	21.43574142	Cultural Debris	Cultural, Other	3	18	Scrap Bin	Reinforced concrete, Nail, Bolt.
1249	I12	1/25/2007	I12-00073	280996.0216	3845687.423	C - Nail	21.18414497	Cultural Debris	Nail	3	4	Scrap Bin	
1250	I12	1/25/2007	I12-00074	280998.3247	3845691.603	F - Cultural, Other	20.65761375	Cultural Debris	Cultural, Other	5	6	Scrap Bin	30 inch cable, Nails .
1251	I12	1/25/2007	I12-00075	281002.8517	3845694.168	F - Cultural, Other	19.87490463	Cultural Debris	Cultural, Other	2	4	Scrap Bin	12 inch Rod, Screwdriver .
1252	I12	1/25/2007	I12-00076	280983.2818	3845708.377	C - Nail	19.72079849	Cultural Debris	Nail	1	12	Scrap Bin	
1253	I12	1/25/2007	I12-00077	281005.9973	3845683.247	F - Cultural, Other	19.33168808	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolt, Nail.
1254	I12	1/25/2007	I12-00078	280989.0514	3845684.803	F - Cultural, Other	19.21623421	Cultural Debris	Cultural, Other	1	4	Scrap Bin	U-Bolt.
1255	I12	1/25/2007	I12-00079	280994.5044	3845683.822	F - Cultural, Other	18.32620811	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Bolt, Scrap.
1256	I12	1/25/2007	I12-00080	280997.3074	3845704.306	C - Nail	16.33254433	Cultural Debris	Nail	12	12	Scrap Bin	
1257	I12	1/25/2007	I12-00081	280981.0905	3845688.393	F - Cultural, Other	15.45572049	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Bolt.
1258	I12	1/25/2007	I12-00082	280992.9692	3845698.835	F - Cultural, Other	14.12355614	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nails, Wire.
1259	I12	1/25/2007	I12-00083	280994.8046	3845691.088	F - Cultural, Other	14.06034489	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Communication cable. Nails removed.
1260	I12	1/25/2007	I12-00084	280996.2522	3845689.16	F - Cultural, Other	14.00946121	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nails, Metal Rod.
1261	I12	1/25/2007	I12-00085	280992.884	3845700.517	F - Cultural, Other	13.73047829	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolt, Scrap.
1262	I12	1/25/2007	I12-00086	281005.6422	3845691.463	D - Scrap Metal	12.81223106	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
1263	I12	1/25/2007	I12-00087	280997.1033	3845688.148	C - Nail	12.31965742	Cultural Debris	Nail	4	6	Scrap Bin	
1264	I12	1/25/2007	I12-00088	280998.4953	3845688.24	C - Nail	12.31480789	Cultural Debris	Nail	7	24	Scrap Bin	
1265	I12	1/25/2007	I12-00089	280995.3331	3845685.467	C - Nail	11.86369419	Cultural Debris	Nail	5	24	Scrap Bin	
1266	I12	1/25/2007	I12-00090	281001.8445	3845696.646	D - Scrap Metal	11.59988165	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1267	I12	1/25/2007	I12-00091	280990.6052	3845700.761	F - Cultural, Other	10.93322468	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolt, Nut.
1268	I12	1/25/2007	I12-00092	280994.5839	3845701.059	E - Wire	9.803941727	Cultural Debris	Wire	1	6	Scrap Bin	
1269	I12	1/25/2007	I12-00093	281011.3245	3845683.794	F - Cultural, Other	9.530382439	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Cable, Electric wire.
1270	I12	1/25/2007	I12-00094	280993.2702	3845701.62	C - Nail	8.803849356	Cultural Debris	Nail	2	4	Scrap Bin	
1271	I12	1/25/2007	I12-00095	280990.7277	3845690.561	F - Cultural, Other	8.772932157	Cultural Debris	Cultural, Other	9	18	Scrap Bin	Nails, Bolt.
1272	I12	1/25/2007	I12-00096	280991.9213	3845703.149	C - Nail	7.940474987	Cultural Debris	Nail	4	2	Scrap Bin	
1273	I12	1/25/2007	I12-00097	280998.5245	3845695.628	F - Cultural, Other	7.772575105	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Nut, Bolt, Nail.
1274	I12	1/25/2007	I12-00098	280991.8327	3845685.828	F - Cultural, Other	7.733908519	Cultural Debris	Cultural, Other	2	18	Scrap Bin	
1275	I12	1/25/2007	I12-00099	280988.4117	3845691.694	F - Cultural, Other	7.080540657	Cultural Debris	Cultural, Other	5	24	Scrap Bin	Reinforced concrete, Concrete block.
1276	I12	1/25/2007	I12-00100	280989.3904	3845683.02	F - Cultural, Other	7.065078741	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Screws, Nail.
1277	I12	1/25/2007	I12-00101	280993.7776	3845686.987	C - Nail	6.48924496	Cultural Debris	Nail	3	6	Scrap Bin	
1278	I12	1/25/2007	I12-00102	281000.5791	3845694.564	C - Nail	6.216915131	Cultural Debris	Nail	2	4	Scrap Bin	
1279	I12	1/25/2007	I12-00103	280981.0149	3845686.04	F - Cultural, Other	6.134739876	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Banding wire, Nails, Nut. 6 inch PVC pipe.
1280	I12	1/25/2007	I12-00104	280990.4841	3845686.63	C - Nail	6.065762644	Cultural Debris	Nail	5	4	Scrap Bin	
1281	I12	1/25/2007	I12-00105	280991.6043	3845691.414	C - Nail	5.914292336	Cultural Debris	Nail	4	12	Scrap Bin	
1282	I12	1/25/2007	I12-00106	280995.3882	3845705.909	F - Cultural, Other	5.188148022	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Nails, Screws, Scrap metal.
1283	I12	1/25/2007	I12-00107	280995.7675	3845702.21	F - Cultural, Other	4.5553749	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Meral Rod, Hinge, Nails.
1284	I12	1/25/2007	I12-00108	280990.1116	3845692.237	C - Nail	4.51004982	Cultural Debris	Nail	2	2	Scrap Bin	
1285	I12	1/25/2007	I12-00109	281010.5895	3845681.653	F - Cultural, Other	3.872832537	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Bolt, Nail.
1286	I12	1/25/2007	I12-00110	280991.5617	3845694.162	C - Nail	3.644524336	Cultural Debris	Nail	2	4	Scrap Bin	
1287	I12	1/25/2007	I12-00111	280984.6244	3845711.566	H - No Contact	3.571452831	No Contact	N/A	0	0	No Action Required	
1288	I12	1/25/2007	I12-00112	280991.4156	3845701.949	F - Cultural, Other	3.532507658	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Nails, Metal strp.
1289	I12	1/25/2007	I12-00113	281002.5898	3845699.061	C - Nail	3.497341633	Cultural Debris	Nail	2	4	Scrap Bin	
1290	I12	1/25/2007	I12-00114	280994.0307	3845702.654	C - Nail	3.194570914	Cultural Debris	Nail	3	4	Scrap Bin	
1291	M22		M22-00001	281295.6686	3845817.318		1383.834595			0	0		
1292	M22		M22-00002	281291.952	3845819.755		1034.37207			0	0		
1293	M22		M22-00003	281312.1535	3845809.539		1003.004683			0	0		
1294	M22		M22-00004	281297.1309	3845819.548		933.2927856			0	0		
1295	M22		M22-00005	281317.9805	3845818.256		919.28302			0	0		
1296	M22		M22-00006	281306.812	3845790.784		858.6090088			0	0		
1297	M22		M22-00007	281319.3961	3845820.522		721.3147701			0	0		
1298	M22	1/12/2007	M22-00008	281317.5843	3845804.541	F - Cultural, Other	633.5772095	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Fence post.
1299	M22		M22-00009	281295.0363	3845807.648		460.9912699			0	0		
1300	M22	1/12/2007	M22-00010	281315.156	3845805.896	F - Cultural, Other	440.7502295	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Fence post.
1301	M22		M22-00011	281312.8562	3845796.95		382.2744751			0	0		
1302	M22		M22-00012	281293.1574	3845804.157		354.9576882			0	0		
1303	M22		M22-00013	281290.9003	3845800.57		289.0214055			0	0		
1304	M22		M22-00014	281321.7579	3845817.367		276.6143209			0	0		
1305	M22		M22-00015	281298.7139	3845821.416		178.0820265			0	0		
1306	M22		M22-00016	281301.236	3845791.46		156.6085004			0	0		
1307	M22		M22-00017	281321.1827	3845803.542		155.1231539			0	0		
1308	M22		M22-00018	281296.1963	3845810.772		153.3567269			0	0		
1309	M22		M22-00019	281318.9309	3845811.505		134.6082611			0	0		
1310	M22		M22-00020	281311.9606	3845805.071		133.6824188			0	0		
1311	M22		M22-00021	281318.5974	3845800.563		123.1914109			0	0		
1312	M22		M22-00022	281302.0722	3845821.029		103.457428			0	0		
1313	M22		M22-00023	281310.7179	3845819.767		92.82940674			0	0		
1314	M22		M22-00024	281321.1183	3845812.791		92.29347229			0	0		
1315	M22		M22-00025	281308.189	3845790.881		84.81227112			0	0		
1316	M22		M22-00026	281309.7548	3845791.887		81.96540833			0	0		
1317	M22	1/12/2007	M22-00027	281308.0368	3845802.33	C - Nail	74.97663879	Cultural Debris	Nail	4	2	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1318	M22		M22-00028	281309.3345	3845796.633		74.6231842			0	0		
1319	M22	1/12/2007	M22-00029	281320.3613	3845796.771	F - Cultural, Other	72.98853078	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe
1320	M22	1/12/2007	M22-00030	281304.241	3845802.787	F - Cultural, Other	68.438591	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Brass Lock, Metal pipe.
1321	M22		M22-00031	281290.7982	3845791.415		63.64974501			0	0		
1322	M22	1/12/2007	M22-00032	281309.5296	3845801.507	C - Nail	62.29991913	Cultural Debris	Nail	1	2	Scrap Bin	8 iinch.
1323	M22	1/12/2007	M22-00033	281317.6818	3845806.978	D - Scrap Metal	61.85549164	Cultural Debris	Scrap Metal	1	4	Scrap Bin	4 x 5 inches
1324	M22	1/12/2007	M22-00034	281310.2365	3845815.362	E - Wire	60.90275955	Cultural Debris	Wire	6	2	Scrap Bin	reinforcement wire.
1325	M22		M22-00035	281317.3765	3845820.669		58.13348362			0	0		
1326	M22		M22-00036	281301.7185	3845800.752		56.49668884			0	0		
1327	M22		M22-00037	281311.1448	3845798.637		55.86699113			0	0		
1328	M22	1/12/2007	M22-00038	281313.1304	3845803.804	D - Scrap Metal	54.66856384	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
1329	M22		M22-00039	281304.6979	3845798.954		52.85053635			0	0		
1330	M22		M22-00040	281316.4357	3845815.312		50.80402642			0	0		
1331	M22		M22-00041	281318.2179	3845814.184		50.58177297			0	0		
1332	M22		M22-00042	281307.7081	3845820.803		44.15186691			0	0		
1333	M22		M22-00043	281313.3561	3845817.068		43.43595123			0	0		
1334	M22		M22-00044	281299.3739	3845802.146		42.20694577			0	0		
1335	M22	1/12/2007	M22-00045	281304.8806	3845792.082	C - Nail	41.94799423	Cultural Debris	Nail	1	2	Scrap Bin	
1336	M22		M22-00046	281297.2404	3845803.219		40.66156006			0	0		
1337	M22	1/12/2007	M22-00047	281291.7932	3845792.91	I - Under Road	40.26967239	Other	Under Road	0	0	No Action Required	
1338	M22	1/12/2007	M22-00048	281320.0277	3845816.038	D - Scrap Metal	40.08720398	Cultural Debris	Scrap Metal	1	4	Scrap Bin	6 inch bbolt.
1339	M22	1/12/2007	M22-00049	281315.4541	3845797.936	D - Scrap Metal	39.46136591	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Metal clamp.
1340	M22	1/12/2007	M22-00050	281305.4425	3845800.847	F - Cultural, Other	39.11316211	Cultural Debris	Cultural, Other	5	4	Scrap Bin	3 - Battteries, 2 Bolts.
1341	M22	1/12/2007	M22-00051	281316.131	3845795.047	D - Scrap Metal	36.45893422	Cultural Debris	Scrap Metal	1	24	Scrap Bin	Pipe
1342	M22	1/12/2007	M22-00052	281297.9775	3845794.951	D - Scrap Metal	34.84743118	Cultural Debris	Scrap Metal	2	3	Scrap Bin	Sheet metal.
1343	M22	1/12/2007	M22-00053	281292.4027	3845808.142	F - Cultural, Other	34.25926971	Cultural Debris	Cultural, Other	2	4	Scrap Bin	2 pieces of reinforced concrete
1344	M22	1/12/2007	M22-00054	281319.9788	3845807.192	D - Scrap Metal	31.30526543	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Metal ring
1345	M22	1/12/2007	M22-00055	281315.4395	3845796.694	D - Scrap Metal	28.85301781	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Bolt
1346	M22	1/12/2007	M22-00056	281293.3889	3845820.946	E - Wire	28.00635352	Cultural Debris	Wire	4	6	Scrap Bin	pieces
1347	M22	1/12/2007	M22-00057	281298.6906	3845816.587	F - Cultural, Other	27.39258575	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Magnets
1348	M22	1/12/2007	M22-00058	281311.733	3845808.389	C - Nail	27.13088698	Cultural Debris	Nail	6	4	Scrap Bin	
1349	M22	1/12/2007	M22-00059	281320.655	3845801.215	C - Nail	26.88407516	Cultural Debris	Nail	3	2	Scrap Bin	
1350	M22	1/12/2007	M22-00060	281308.2597	3845800.822	F - Cultural, Other	25.93196164	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Car parts.
1351	M22	1/12/2007	M22-00061	281313.5386	3845798.753	C - Nail	24.96715927	Cultural Debris	Nail	4	2	Scrap Bin	
1352	M22	1/12/2007	M22-00062	281317.9074	3845816.428	C - Nail	22.46323967	Cultural Debris	Nail	1	2	Scrap Bin	
1353	M22	1/12/2007	M22-00063	281320.2346	3845798.333	D - Scrap Metal	21.65856552	Cultural Debris	Scrap Metal	1	3	Scrap Bin	
1354	M22	1/12/2007	M22-00064	281308.1345	3845812.395	C - Nail	21.15154839	Cultural Debris	Nail	1	1	Scrap Bin	
1355	M22	1/12/2007	M22-00065	281296.9965	3845793.312	C - Nail	21.01819229	Cultural Debris	Nail	1	0	Scrap Bin	
1356	M22	1/12/2007	M22-00066	281309.5235	3845805.169	D - Scrap Metal	20.92675209	Cultural Debris	Scrap Metal	1	4	Scrap Bin	Clamp
1357	M22	1/12/2007	M22-00067	281292.762	3845794.245	I - Under Road	19.23916054	Other	Under Road	0	0	No Action Required	
1358	M22	1/12/2007	M22-00068	281299.8544	3845818.981	F - Cultural, Other	18.17848206	Cultural Debris	Cultural, Other	1	4	Scrap Bin	
1359	M22	1/12/2007	M22-00069	281303.857	3845793.19	C - Nail	17.9665432	Cultural Debris	Nail	2	3	Scrap Bin	
1360	M22	1/12/2007	M22-00070	281308.713	3845792.538	I - Under Road	17.85668182	Other	Under Road	0	0	No Action Required	
1361	M22	1/12/2007	M22-00071	281310.7055	3845800.392	F - Cultural, Other	17.2175827	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Auto part.
1362	M22	1/12/2007	M22-00072	281301.6149	3845794.348	C - Nail	16.5386219	Cultural Debris	Nail	3	2	Scrap Bin	
1363	M22	1/12/2007	M22-00073	281302.3237	3845803.239	I - Under Road	16.2079939	Other	Under Road	0	0	No Action Required	
1364	M22	1/12/2007	M22-00074	281316.4756	3845818.774	E - Wire	15.84641457	Cultural Debris	Wire	3	2	Scrap Bin	pieces
1365	M22	1/12/2007	M22-00075	281302.1818	3845816.142	D - Scrap Metal	15.57901287	Cultural Debris	Scrap Metal	2	6	Scrap Bin	Screws
1366	M22	1/12/2007	M22-00076	281315.458	3845808.593	C - Nail	15.56851768	Cultural Debris	Nail	1	4	Scrap Bin	
1367	M22	1/12/2007	M22-00077	281300.4635	3845803.701	I - Under Road	14.50817394	Other	Under Road	0	0	No Action Required	
1368	M22	1/12/2007	M22-00078	281319.2385	3845802.827	F - Cultural, Other	14.02738279	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Reinforced concrete.
1369	M22	1/12/2007	M22-00079	281307.8404	3845811.253	D - Scrap Metal	13.54016389	Cultural Debris	Scrap Metal	1	10	Scrap Bin	6 inch spike.
1370	M22	1/12/2007	M22-00080	281291.7691	3845811.372	D - Scrap Metal	13.4428072	Cultural Debris	Scrap Metal	3	4	Scrap Bin	Bracket, bolts.
1371	M22	1/12/2007	M22-00081	281310.4378	3845807.384	C - Nail	11.83768561	Cultural Debris	Nail	2	1	Scrap Bin	
1372	M22	1/12/2007	M22-00082	281293.3691	3845791.29	I - Under Road	10.88684435	Other	Under Road	0	0	No Action Required	
1373	M22	1/12/2007	M22-00083	281307.9273	3845814.844	I - Under Road	9.20862484	Other	Under Road	0	0	No Action Required	
1374	M22	1/12/2007	M22-00084	281306.4953	3845801.934	C - Nail	9.119380951	Cultural Debris	Nail	6	4	Scrap Bin	
1375	M22	1/12/2007	M22-00085	281300.7923	3845792.855	C - Nail	8.726009369	Cultural Debris	Nail	6	6	Scrap Bin	
1376	M22	1/12/2007	M22-00086	281308.6765	3845799.253	D - Scrap Metal	8.579320908	Cultural Debris	Scrap Metal	4	6	Scrap Bin	Sheet metal.
1377	M22	1/12/2007	M22-00087	281299.6469	3845794.732	C - Nail	8.555328369	Cultural Debris	Nail	2	6	Scrap Bin	
1378	M22	1/12/2007	M22-00088	281291.7021	3845813.51	D - Scrap Metal	8.496580124	Cultural Debris	Scrap Metal	1	6	Scrap Bin	6 inch spike.
1379	M22	1/12/2007	M22-00089	281291.6349	3845796.578	I - Under Road	8.488706589	Other	Under Road	0	0	No Action Required	
1380	M22	1/12/2007	M22-00090	281314.0564	3845796.444	C - Nail	8.241476059	Cultural Debris	Nail	1	6	Scrap Bin	
1381	M22	1/12/2007	M22-00091	281302.619	3845793.562	C - Nail	8.063299216	Cultural Debris	Nail	2	4	Scrap Bin	
1382	M22	1/12/2007	M22-00092	281313.9348	3845808.654	E - Wire	7.509527683	Cultural Debris	Wire	2	10	Scrap Bin	
1383	M22	1/12/2007	M22-00093	281298.3613	3845793.105	C - Nail	7.08022213	Cultural Debris	Nail	1	4	Scrap Bin	
1384	M22	1/12/2007	M22-00094	281297.0331	3845798.04	I - Under Road	7.070664883	Other	Under Road	0	0	No Action Required	
1385	M22	1/12/2007	M22-00095	281304.4239	3845811.17	I - Under Road	6.907860279	Other	Under Road	0	0	No Action Required	
1386	M22	1/12/2007	M22-00096	281290.8245	3845795.39	I - Under Road	6.886548519	Other	Under Road	0	0	No Action Required	
1387	M22	1/12/2007	M22-00097	281303.1993	3845814.881	I - Under Road	6.871368408	Other	Under Road	0	0	No Action Required	
1388	M22	1/12/2007	M22-00098	281317.8523	3845795.987	C - Nail	6.849004269	Cultural Debris	Nail	2	2	Scrap Bin	
1389	M22	1/12/2007	M22-00099	281291.5133	3845816.417	E - Wire	6.798647881	Cultural Debris	Wire	2	4	Scrap Bin	pieces
1390	M22	1/12/2007	M22-00100	281307.1926	3845817.62	I - Under Road	6.314263933	Other	Under Road	0	0	No Action Required	
1391	M22	1/12/2007	M22-00101	281310.5228	3845811.079	C - Nail	5.787343979	Cultural Debris	Nail	4	6	Scrap Bin	
1392	M22	1/12/2007	M22-00102	281321.4289	3845809.117	D - Scrap Metal	5.57167244	Cultural Debris	Scrap Metal	1	8	Scrap Bin	4 inch bolt..
1393	M22	1/12/2007	M22-00103	281295.4003	3845799.174	I - Under Road	5.439627647	Other	Under Road	0	0	No Action Required	
1394	M22	1/12/2007	M22-00104	281306.358	3845816.574	I - Under Road	5.402473136	Other	Under Road	0	0	No Action Required	
1395	M22	1/12/2007	M22-00105	281295.5048	3845797.898	I - Under Road	5.122829137	Other	Under Road	0	0	No Action Required	
1396	M22	1/12/2007	M22-00106	281300.4978	3845815.928	E - Wire	5.071884559	Cultural Debris	Wire	1	4	Scrap Bin	
1397	M22	1/12/2007	M22-00107	281303.1687	3845806.491	I - Under Road	4.921701908	Other	Under Road	0	0	No Action Required	
1398	M22	1/12/2007	M22-00108	281297.1836	3845796.928	I - Under Road	4.796473126	Other	Under Road	0	0	No Action Required	
1399	M22	1/12/2007	M22-00109	281298.9123	3845798.312	I - Under Road	4.333377121	Other	Under Road	0	0	No Action Required	
1400	M22	1/12/2007	M22-00110	281304.5336	3845813.912	I - Under Road	4.316795349	Other	Under Road	0	0	No Action Required	
1401	M22	1/12/2007	M22-00111	281294.9007	3845801.94	I - Under Road	3.935355663	Other	Under Road	0	0	No Action Required	
1402	M22	1/12/2007	M22-00112	281309.7644	3845812.013	E - Wire	3.926729755	Cultural Debris	Wire	3	2	Scrap Bin	
1403	M22	1/12/2007	M22-00113	281304.4665	3845808.423	I - Under Road	3.904529572	Other	Under Road	0	0	No Action Required	
1404	M22	1/12/2007	M22-00114	281305.2707	3845805.644	E - Wire	3.736013412	Cultural Debris	Wire	3	1	Scrap Bin	6 inches long.
1405	M22	1/12/2007	M22-00115	281313.2506	3845807.25	C - Nail	3.695409897	Cultural Debris	Nail	1	4	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1406	M22	1/12/2007	M22-00116	281302.6631	3845812.919	I - Under Road	3.460520983	Other	Under Road	0	0	No Action Required	
1407	M22	1/12/2007	M22-00117	281295.0706	3845792.543	I - Under Road	3.304924965	Other	Under Road	0	0	No Action Required	
1408	M22	1/12/2007	M22-00118	281304.0036	3845815.917	I - Under Road	3.296088219	Other	Under Road	0	0	No Action Required	
1409	M22	1/12/2007	M22-00119	281300.6767	3845805.218	I - Under Road	3.220642328	Other	Under Road	0	0	No Action Required	
1410	M22	1/12/2007	M22-00120	281293.9136	3845800.149	I - Under Road	3.20299387	Other	Under Road	0	0	No Action Required	
1411	M22	1/12/2007	M22-00121	281300.3049	3845795.926	I - Under Road	3.12111187	Other	Under Road	0	0	No Action Required	
1412	M22	1/12/2007	M22-00122	281304.5093	3845817.117	I - Under Road	3.081542492	Other	Under Road	0	0	No Action Required	
1413	M22	1/12/2007	M22-00123	281302.0903	3845806.229	I - Under Road	3.049149513	Other	Under Road	0	0	No Action Required	
1414	M22	1/12/2007	M22-00124	281302.858	3845810.165	I - Under Road	3.01	Other	Under Road	0	0	No Action Required	
1415	M22	1/12/2007	M22-00125	281304.5516	3845795.299	I - Under Road	3	Other	Under Road	0	0	No Action Required	
1416	P19		P19-00051	281232.4213	3845885.302		67.56738955			0	0		
1417	P19		P19-00052	281206.5271	3845888.778		65.02339337			0	0		
1418	P19		P19-00053	281231.6552	3845896.872		63.98767204			0	0		
1419	P19	1/29/2007	P19-00054	281202.68	3845887.853		62.88305098	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
1420	P19		P19-00055	281232.4141	3845898.878		61.04830551			0	0		
1421	P19		P19-00056	281220.186	3845909.741		60.28533554			0	0		
1422	P19	1/30/2007	P19-00057	281218.0473	3845902.046		59.24665451	Cultural Debris	Culture, Other	1	24	LIP	Pipe
1423	P19		P19-00058	281222.8484	3845903.837		58.1476059			0	0		
1424	P19		P19-00059	281220.9647	3845902.17		58.07685094			0	0		
1425	P19	1/30/2007	P19-00060	281228.1735	3845895.843		57.55830383	Cultural Debris	Culture, Other	1	12	LIP	Gounding Rod
1426	P19		P19-00061	281210.3095	3845910.747		57.09910965			0	0		
1427	P19	1/30/2007	P19-00062	281224.0121	3845898.604		51.02096176	Cultural Debris	Culture, Other	3	12	SB	Wire, Nails
1428	P19	1/30/2007	P19-00063	281219.7448	3845892.159		50.30572405	Cultural Debris	Culture, Other	1	12	SB	Belt 24" Long
1429	P19	1/29/2007	P19-00064	281205.7152	3845891.25		45.17652512	Cultural Debris	Cultural, Other	4	18	Scrap Bin	
1430	P19	1/29/2007	P19-00065	281209.103	3845899.658		44.83779144	Cultural Debris	Cultural, Other	1	24	Left in Place	
1431	P19		P19-00001	281228.3381	3845903.77		28940.42773			0	0		
1432	P19		P19-00002	281217.3589	3845911.533		1378.015503			0	0		
1433	P19		P19-00003	281227.0525	3845902.143		1375.145264			0	0		
1434	P19		P19-00004	281218.0214	3845896.871		1140.746075			0	0		
1435	P19		P19-00005	281213.913	3845886.091		828.052196			0	0		
1436	P19		P19-00006	281214.3611	3845901.431		764.2072144			0	0		
1437	P19		P19-00007	281219.278	3845898.488		742.9918823			0	0		
1438	P19		P19-00008	281214.9949	3845913.458		738.7067871			0	0		
1439	P19		P19-00009	281226.8817	3845894.064		700.2052002			0	0		
1440	P19		P19-00010	281209.4381	3845904.221		683.7863159			0	0		
1441	P19		P19-00011	281209.5354	3845887.588		671.269104			0	0		
1442	P19		P19-00012	281216.7495	3845900.115		657.2576904			0	0		
1443	P19		P19-00013	281224.798	3845895.368		616.9295044			0	0		
1444	P19		P19-00014	281211.1441	3845901.102		602.585022			0	0		
1445	P19		P19-00015	281211.8326	3845903.058		444.5514526			0	0		
1446	P19		P19-00016	281212.5759	3845898.756		424.8856506			0	0		
1447	P19		P19-00017	281219.1867	3845907.645		403.8488159			0	0		
1448	P19		P19-00018	281208.3049	3845906.403		399.1921387			0	0		
1449	P19	1/29/2007	P19-00019	281213.8961	3845889.902		366.0153343	Cultural Debris	Cultural, Other	1	6	Left in Place	
1450	P19		P19-00020	281224.7788	3845903.634		350.2702929			0	0		
1451	P19		P19-00021	281212.5379	3845908.858		338.0635388			0	0		
1452	P19		P19-00022	281203.4345	3845900.883		319.7144235			0	0		
1453	P19		P19-00023	281229.0344	3845886.552		303.5811004			0	0		
1454	P19		P19-00024	281232.6211	3845888.8		291.4268188			0	0		
1455	P19		P19-00025	281223.1044	3845906.421		243.2674866			0	0		
1456	P19		P19-00026	281206.6842	3845907.841		223.2870789			0	0		
1457	P19		P19-00027	281214.4414	3845896.124		219.0024586			0	0		
1458	P19		P19-00028	281231.2179	3845893.339		203.6758168			0	0		
1459	P19	1/29/2007	P19-00029	281209.1394	3845892.944		195.055954	Cultural Debris	Cultural, Other	1	6	Left in Place	
1460	P19		P19-00030	281221.3902	3845896.304		192.3991962			0	0		
1461	P19		P19-00031	281229.0754	3845897.817		142.7285712			0	0		
1462	P19		P19-00032	281203.9183	3845914.142		142.610098			0	0		
1463	P19		P19-00033	281208.5938	3845916.094		140.7841265			0	0		
1464	P19	1/29/2007	P19-00034	281203.7106	3845886.906		138.098877	Cultural Debris	Cultural, Other	1	4	Left in Place	
1465	P19		P19-00035	281206.4406	3845913.19		131.5919495			0	0		
1466	P19		P19-00036	281225.243	3845906.488		131.471283			0	0		
1467	P19		P19-00037	281224.8987	3845893.546		122.733495			0	0		
1468	P19		P19-00038	281205.5024	3845916.431		120.0505905			0	0		
1469	P19		P19-00039	281207.5982	3845911.618		119.5818024			0	0		
1470	P19	1/29/2007	P19-00040	281214.6002	3845905.225		118.5162959	Cultural Debris	Cultural, Other	1	12	Scrap Bin	
1471	P19	1/29/2007	P19-00041	281211.4063	3845915.28		116.5883484	Cultural Debris	Cultural, Other	3	6	Scrap Bin	
1472	P19		P19-00042	281224.6786	3845891.461		114.3410534			0	0		
1473	P19		P19-00043	281207.5774	3845900.362		101.7804655			0	0		
1474	P19		P19-00044	281217.2679	3845889.982		99.95474168			0	0		
1475	P19		P19-00045	281213.7578	3845893.979		88.98439789			0	0		
1476	P19	1/30/2007	P19-00046	281227.5458	3845891.597		80.41770172	Cultural Debris	Culture, Other	1	12	LIP	Grounding Rod
1477	P19		P19-00047	281219.6436	3845903.813		80.39070892			0	0		
1478	P19	1/29/2007	P19-00048	281205.7642	3845903.911		79.31742859	Cultural Debris	Cultural, Other	1	24	Left in Place	
1479	P19		P19-00049	281218.8879	3845888.739		78.53071594			0	0		
1480	P19		P19-00050	281207.982	3845909.772		69.96136475			0	0		
1481	P19	1/29/2007	P19-00066	281208.0759	3845894.685		44.18195054	Cultural Debris	Cultural, Other	2	4	Scrap Bin	
1482	P19	1/29/2007	P19-00067	281212.0642	3845905.032		43.84560394	Cultural Debris	Cultural, Other	1	6	Scrap Bin	
1483	P19	1/30/2007	P19-00068	281224.3897	3845888.977		43.25857162	Cultural Debris	Culture, Other	3	4	SB	Toy Car, Nails
1484	P19	1/29/2007	P19-00069	281202.8881	3845889.227		41.11862564	Cultural Debris	Cultural, Other	2	12	Scrap Bin	
1485	P19	1/30/2007	P19-00070	281226.6989	3845889.495		40.2047081	Cultural Debris	Culture, Other	2	6	SB	Bolt, Pipe Ring
1486	P19	1/30/2007	P19-00071	281226.7537	3845887.052		38.74754715	Cultural Debris	Culture, Other	1	10	SB	6" Bolt
1487	P19	1/29/2007	P19-00072	281218.7832	3845891.446		38.19921243	Cultural Debris	Cultural, Other	10	12	Scrap Bin	
1488	P19	1/29/2007	P19-00073	281204.8988	3845893.724		38.19729233	Cultural Debris	Cultural, Other	6	4	Scrap Bin	
1489	P19	1/30/2007	P19-00074	281221.1484	3845891.853		37.91530228	Cultural Debris	Culture, Other	1	12	LIP	Wire
1490	P19		P19-00075	281230.0755	3845900.622		36.12336099			0	0		
1491	P19	1/29/2007	P19-00076	281212.738	3845889.525		35.66990658	Cultural Debris	Cultural, Other	2	2	Scrap Bin	
1492	P19		P19-00077	281217.7013	3845887.734		34.62270642			0	0		
1493	P19	1/30/2007	P19-00078	281222.702	3845892.553		34.18914413	Cultural Debris	Culture, Other	3	12	QC Returned Nails - SB	QC Item# 7, Nails
1494	P19	1/29/2007	P19-00079	281215.2192	3845898.633		34.14632614	Cultural Debris	Cultural, Other	1	4	Scrap Bin	
1495	P19	1/29/2007	P19-00080	281206.0077	3845894.747		32.13983154	Cultural Debris	Cultural, Other	4	10	Left in Place	
1496	P19	1/29/2007	P19-00081	281212.1435	3845910.826		31.16250992	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
1497	P19		P19-00082	281208.8347	3845889.142		30.73970795			0	0		
1498	P19	1/30/2007	P19-00083	281221.6312	3845899.481		27.80364724	Cultural Debris	Culture, Other	1	6	SB	Bolt 8"
1499	P19	1/30/2007	P19-00084	281227.9054	3845900.584		27.39451027	Cultural Debris	Culture, Other	5	6	SB	Nails
1500	P19	1/29/2007	P19-00085	281207.3421	3845890.63		27.24288069	Cultural Debris	Cultural, Other	1	6	Scrap Bin	
1501	P19	1/29/2007	P19-00086	281224.4431	3845885.575		26.99368109	Cultural Debris	Cultural, Other	3	6	Scrap Bin	
1502	P19	1/29/2007	P19-00087	281222.809	3845885.686		25.3727989	Cultural Debris	Cultural, Other	3	4	Scrap Bin	
1503	P19	1/30/2007	P19-00088	281233.395	3845896.702		25.16331863	Cultural Debris	Culture, Other	2	6	SB	Magnet, Concrete
1504	P19	1/29/2007	P19-00089	281214.0711	3845892.689		22.7381244	Cultural Debris	Cultural, Other	4	6	Scrap Bin	
1505	P19	1/29/2007	P19-00090	281212.2208	3845894.054		22.31646607	Cultural Debris	Cultural, Other	4	6	Scrap Bin	
1506	P19	1/30/2007	P19-00091	281232.2434	3845890.799		22.01324272	Cultural Debris	Culture, Other	2	6	SB	Strap Clamp, Bolt
1507	P19	1/29/2007	P19-00092	281205.2159	3845909.272		20.10359192	Cultural Debris	Cultural, Other	1	4	Left in Place	
1508	P19	1/30/2007	P19-00093	281227.558	3845888.087		18.39863205	Cultural Debris	Culture, Other	1	6	SB	Scrap Metal
1509	P19	1/29/2007	P19-00094	281216.725	3845891.877		17.03946304	Cultural Debris	Cultural, Other	3	6	Scrap Bin	
1510	P19	1/29/2007	P19-00095	281209.5111	3845890.793		16.84256554	Cultural Debris	Cultural, Other	2	4	Scrap Bin	

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Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1511	P19	1/29/2007	P19-00096	281215.1445	3845889.248		16.77566696	Cultural Debris	Cultural, Other	7	4	Scrap Bin	
1512	P19	1/29/2007	P19-00097	281210.273	3845913.647		16.6457901	Cultural Debris	Cultural, Other	3	6	Scrap Bin	
1513	P19	1/29/2007	P19-00098	281212.4937	3845895.588		16.58824585	Cultural Debris	Cultural, Other	3	4	Scrap Bin	
1514	P19	1/30/2007	P19-00099	281221.3799	3845890.013		16.52377319	Cultural Debris	Culture, Other	3	6	SB	Nails, Scrap Metal
1515	P19	1/29/2007	P19-00100	281211.4081	3845913.045		16.18273351	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
1516	P19	1/29/2007	P19-00101	281206.0262	3845906.646		15.98935127	Cultural Debris	Cultural, Other	2	12	Scrap Bin	
1517	P19	1/30/2007	P19-00102	281224.7067	3845900.712		15.43130493	Cultural Debris	Culture, Other	2	18	SB	Bolt, Nail
1518	P19	1/29/2007	P19-00103	281216.792	3845893.553		14.09869671	Cultural Debris	Cultural, Other	2	4	Scrap Bin	
1519	P19	1/30/2007	P19-00104	281222.7508	3845889.958		13.53907299	Cultural Debris	Culture, Other	3	4	SB	Wire, Nails
1520	P19	1/30/2007	P19-00105	281227.1012	3845899.548		12.76869679	Cultural Debris	Culture, Other	4	4	SB	Wire, Bolts, Nails
1521	P19	1/29/2007	P19-00106	281221.4106	3845906.031		12.69688797	Cultural Debris	Cultural, Other	5	12	Scrap Bin	
1522	P19	1/29/2007	P19-00107	281222.6962	3845887.421		11.69849886	Cultural Debris	Cultural, Other	6	4	Scrap Bin	
1523	P19	1/29/2007	P19-00108	281207.0706	3845886.492		10.33535881	Cultural Debris	Cultural, Other	1	24	Scrap Bin	
1524	P19	1/29/2007	P19-00109	281212.6497	3845914.037		10.13608087	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
1525	P19	1/29/2007	P19-00110	281211.4425	3845893.309		9.370281219	Cultural Debris	Cultural, Other	4	6	Scrap Bin	
1526	P19	1/29/2007	P19-00111	281210.7708	3845892.207		9.342025773	Cultural Debris	Cultural, Other	1	4	Scrap Bin	
1527	P19	1/29/2007	P19-00112	281220.684	3845886.409		9.258666534	Cultural Debris	Cultural, Other	5	12	Scrap Bin	
1528	P19	1/29/2007	P19-00113	281205.4607	3845911.167		8.372272954	Cultural Debris	Cultural, Other	4	6	Scrap Bin	
1529	P19	1/29/2007	P19-00114	281205.8576	3845886.328		8.3142201	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
1530	P19	1/30/2007	P19-00115	281230.379	3845889.958		8.158104897	Cultural Debris	Culture, Other	3	6	SB	Wire, Nails
1531	P19	1/29/2007	P19-00116	281204.0948	3845907.944		7.875107765	Cultural Debris	Cultural, Other	2	4	Scrap Bin	
1532	P19	1/29/2007	P19-00117	281210.2703	3845889.75		6.587252349	Cultural Debris	Cultural, Other	1	6	Left in Place	
1533	P19	1/29/2007	P19-00118	281210.3154	3845895.643		5.830118656	Cultural Debris	Cultural, Other	2	12	Scrap Bin	
1534	P19	1/29/2007	P19-00119	281207.6223	3845893.157		5.48348093	Cultural Debris	Cultural, Other	3	12	Scrap Bin	
1535	P19	1/29/2007	P19-00120	281211.0404	3845890.884		4.790640354	Cultural Debris	Cultural, Other	1	6	Scrap Bin	
1536	P19	1/29/2007	P19-00121	281212.2993	3845891.257		4.57268586	Cultural Debris	Cultural, Other	3	6	Scrap Bin	
1537	P19	1/29/2007	P19-00122	281211.093	3845896.554		4.522591178	Cultural Debris	Cultural, Other	4	18	Scrap Bin	
1538	P19	1/29/2007	P19-00123	281209.2766	3845908.123		4.247752241	Cultural Debris	Cultural, Other	4	6	Scrap Bin	
1539	P19	1/29/2007	P19-00124	281203.9973	3845905.507		3.579540491	Cultural Debris	Cultural, Other	2	4	Scrap Bin	
1540	P19	1/29/2007	P19-00125	281222.5301	3845908.868		3.438364269	Cultural Debris	Cultural, Other	3	4	Scrap Bin	
1541	I21		I21-00001	281283.0728	3845681.735		1796.741577			0	0		
1542	I21		I21-00002	281283.0482	3845674.432		1311.065984			0	0		
1543	I21		I21-00003	281269.8943	3845699.349		850.4487915			0	0		
1544	I21		I21-00004	281266.5308	3845694.81		842.7745528			0	0		
1545	I21		I21-00005	281281.4654	3845684.296		770.8148108			0	0		
1546	I21		I21-00006	281265.4784	3845672.139		766.7962409			0	0		
1547	I21		I21-00007	281279.3352	3845671.032		747.1297663			0	0		
1548	I21		I21-00008	281280.7706	3845675.657		710.5525867			0	0		
1549	I21		I21-00009	281265.0321	3845692.221		646.6377563			0	0		
1550	I21		I21-00010	281285.5242	3845674.536		589.2802242			0	0		
1551	I21		I21-00011	281255.668	3845677.709		579.0507277			0	0		
1552	I21		I21-00012	281256.9469	3845684.611		543.9820557			0	0		
1553	I21		I21-00013	281279.0637	3845680.675		454.6829224			0	0		
1554	I21		I21-00014	281280.911	3845673.354		442.6133425			0	0		
1555	I21		I21-00015	281255.8703	3845692.212		429.9120315			0	0		
1556	I21		I21-00016	281281.8077	3845671.05		399.8865622			0	0		
1557	I21		I21-00017	281263.4115	3845693.659		374.9251404			0	0		
1558	I21		I21-00018	281260.9849	3845674.675		339.6588973			0	0		
1559	I21		I21-00019	281280.9586	3845682.277		287.5307007			0	0		
1560	I21		I21-00020	281285.4977	3845685.501		253.4324181			0	0		
1561	I21		I21-00021	281259.0132	3845695.896		216.4077912			0	0		
1562	I21		I21-00022	281271.6789	3845670.117		165.1026264			0	0		
1563	I21		I21-00023	281285.5847	3845678.227		147.0910609			0	0		
1564	I21	1/16/2007	I21-00024	281264.5936	3845700.324	E - Wire	127.1665726	Cultural Debris	Wire	3	2	Scrap Bin	Short lengths.
1565	I21		I21-00025	281257.3429	3845686.884		126.4137955			0	0		
1566	I21	1/16/2007	I21-00026	281280.7699	3845692.812	D - Scrap Metal	124.8296509	Cultural Debris	Scrap Metal	1	24	Scrap Bin	2 inch pipe at 24 inches .
1567	I21		I21-00027	281283.0667	3845669.807		123.7608556			0	0		
1568	I21		I21-00028	281281.3606	3845686.772		99.20925162			0	0		
1569	I21		I21-00029	281278.5277	3845686.341		96.59933472			0	0		
1570	I21		I21-00030	281257.8294	3845690.302		94.829106			0	0		
1571	I21		I21-00031	281259.1592	3845693.011		91.32096817			0	0		
1572	I21		I21-00032	281285.7414	3845681.42		76.66634607			0	0		
1573	I21		I21-00033	281281.6581	3845688.389		72.84465179			0	0		
1574	I21		I21-00034	281285.3384	3845682.977		72.00313423			0	0		
1575	I21		I21-00035	281276.8765	3845683.203		71.45671082			0	0		
1576	I21		I21-00036	281276.6026	3845687.049		68.38955809			0	0		
1577	I21		I21-00037	281277.3335	3845690.813		64.52843475			0	0		
1578	I21		I21-00038	281284.3076	3845669.524		51.99794244			0	0		
1579	I21	1/16/2007	I21-00039	281277.9975	3845676.903	D - Scrap Metal	49.07152176	Cultural Debris	Scrap Metal	1	12	Scrap Bin	Metal rod 12 inches long.
1580	I21	1/16/2007	I21-00040	281281.6288	3845679.962	F - Cultural, Other	46.94867706	Cultural Debris	Cultural, Other	2	1	Scrap Bin	1 inch rod buried with asphalt .
1581	I21		I21-00041	281276.6508	3845669.939		45.60581207			0	0		
1582	I21	1/16/2007	I21-00042	281282.3967	3845695.34	C - Nail	43.87379837	Cultural Debris	Nail	3	4	Scrap Bin	
1583	I21	1/16/2007	I21-00043	281256.8865	3845700.169	D - Scrap Metal	43.71954844	Cultural Debris	Scrap Metal	1	6	Scrap Bin	3 x 8 inch piece of pipe.
1584	I21	1/16/2007	I21-00044	281271.6795	3845698.21	C - Nail	32.95497513	Cultural Debris	Nail	2	6	Scrap Bin	
1585	I21	1/16/2007	I21-00045	281283.4081	3845693.927	H - No Contact	29.53960991	No Contact	N/A	0	0	No Action Required	
1586	I21	1/16/2007	I21-00046	281263.3747	3845677.488	C - Nail	27.56684113	Cultural Debris	Nail	1	4	Scrap Bin	
1587	I21	1/16/2007	I21-00047	281266.866	3845684.672	F - Cultural, Other	23.76775932	Cultural Debris	Cultural, Other	1	12	Scrap Bin	4 inch bolt.
1588	I21	1/16/2007	I21-00048	281265.5623	3845697.844	F - Cultural, Other	23.56134224	Cultural Debris	Cultural, Other	6	8	Scrap Bin	2 pieces of metal, 1 4 inch bplt, 1 nail, 2 screws.
1589	I21	1/16/2007	I21-00049	281271.6125	3845700.349	H - No Contact	22.08790779	No Contact	N/A	0	0	No Action Required	
1590	I21	1/16/2007	I21-00050	281275.408	3845677.007	G - Below 2 ft	21.28315735	Other	Below 2 ft	0	24	No Action Required	
1591	I21	1/16/2007	I21-00051	281278.8505	3845682.972	H - No Contact	20.55953598	No Contact	N/A	0	0	No Action Required	
1592	I21	1/16/2007	I21-00052	281285.5037	3845670.043	D - Scrap Metal	19.70173264	Cultural Debris	Scrap Metal	2	4	Scrap Bin	Bolt, Wire.
1593	I21	1/16/2007	I21-00053	281275.6091	3845682.033		19.2311573			3	12	Scrap Bin	Metal clamp, asphalt with wire reinforcement .
1594	I21	1/16/2007	I21-00054	281275.2986	3845697.15	I - Under Road	16.74483109	Other	Under Road	0	0	No Action Required	
1595	I21	1/16/2007	I21-00055	281276.6153	3845697.547	I - Under Road	16.60992692	Other	Under Road	0	0	No Action Required	
1596	I21	1/16/2007	I21-00056	281256.1699	3845696.795	C - Nail	16.23663697	Cultural Debris	Nail	1	2	Scrap Bin	
1597	I21	1/16/2007	I21-00057	281259.9383	3845671.676	C - Nail	15.47796822	Cultural Debris	Nail	4	4	Scrap Bin	
1598	I21	1/16/2007	I21-00058	281264.7792	3845683.742	C - Nail	15.15152302	Cultural Debris	Nail	3	2	Scrap Bin	
1599	I21	1/16/2007	I21-00059	281278.473	3845696.412	I - Under Road	14.11277485	Other	Under Road	0	0	No Action Required	
1600	I21	1/16/2007	I21-00060	281286.0463	3845691.227	H - No Contact	13.92100811	No Contact	N/A	0	0	No Action Required	
1601	I21	1/16/2007	I21-00061	281279.8256	3845695.901	I - Under Road	13.4768343	Other	Under Road	0	0	No Action Required	
1602	I21	1/16/2007	I21-00062	281274.9331	3845699.453	H - No Contact	13.14838791	No Contact	N/A	0	0	No Action Required	
1603	I21	1/16/2007	I21-00063	281273.9557	3845697.218	C - Nail	13.10750534	Cultural Debris	Nail	1	2	Scrap Bin	
1604	I21	1/16/2007	I21-00064	281278.2232	3845697.796	I - Under Road	12.82257175	Other	Under Road	0	0	No Action Required	
1605	I21	1/16/2007	I21-00065	281277.2634	3845695.573	I - Under Road	12.50483513	Other	Under Road	0	0	No Action Required	
1606	I21	1/16/2007	I21-00066	281269.8087	3845674.332	C - Nail	12.05553341	Cultural Debris	Nail	3	2	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1607	I21	1/16/2007	I21-00067	281272.5263	3845692.684	F - Cultural, Other	10.26781273	Cultural Debris	Cultural, Other	2	1	Scrap Bin	Asphalt , nail.
1608	I21	1/16/2007	I21-00068	281278.4337	3845672.494	F - Cultural, Other	10.0692874	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Trailer tie down.
1609	I21	1/16/2007	I21-00069	281262.3758	3845698.277	C - Nail	9.993236542	Cultural Debris	Nail	1	2	Scrap Bin	4 inch nail
1610	I21	1/16/2007	I21-00070	281257.0167	3845697.605	F - Cultural, Other	9.806310066	Cultural Debris	Cultural, Other	3	4	Scrap Bin	2 - Screws, 1 - nail.
1611	I21	1/16/2007	I21-00071	281266.5614	3845692.312	C - Nail	9.527576447	Cultural Debris	Nail	2	4	Scrap Bin	4 inch nails.
1612	I21	1/16/2007	I21-00072	281277.5787	3845700.235	I - Under Road	9.252877161	Other	Under Road	0	0	No Action Required	
1613	I21	1/16/2007	I21-00073	281278.3005	3845693.147	I - Under Road	9.243789712	Other	Under Road	0	0	No Action Required	
1614	I21	1/16/2007	I21-00074	281285.0106	3845699.66	D - Scrap Metal	9.070165634	Cultural Debris	Scrap Metal	2	4	Scrap Bin	Muffler clamp.
1615	I21	1/16/2007	I21-00075	281266.6953	3845676.593	I - Under Road	8.835519791	Other	Under Road	0	0	No Action Required	
1616	I21	1/16/2007	I21-00076	281278.9101	3845674.219	F - Cultural, Other	8.630423161	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Reinforced concrete, nails.
1617	I21	1/16/2007	I21-00077	281273.3428	3845694.024	I - Under Road	8.158545494	Other	Under Road	0	0	No Action Required	
1618	I21	1/16/2007	I21-00078	281271.4415	3845673.199	D - Scrap Metal	8.005381584	Cultural Debris	Scrap Metal	7	4	Scrap Bin	Metal pieces, wire, nails.
1619	I21	1/16/2007	I21-00079	281255.7954	3845690.149	E - Wire	7.838377953	Cultural Debris	Wire	4	4	Scrap Bin	
1620	I21	1/16/2007	I21-00080	281280.2521	3845698.935	I - Under Road	7.827920914	Other	Under Road	0	0	No Action Required	
1621	I21	1/16/2007	I21-00081	281258.8354	3845670.805	C - Nail	7.597912312	Cultural Debris	Nail	6	4	Scrap Bin	
1622	I21	1/16/2007	I21-00082	281269.9002	3845684.245	I - Under Road	7.596367836	Other	Under Road	0	0	No Action Required	
1623	I21	1/16/2007	I21-00083	281256.4776	3845672.882	C - Nail	7.587160587	Cultural Debris	Nail	5	4	Scrap Bin	
1624	I21	1/16/2007	I21-00084	281286.2649	3845699.88	C - Nail	7.478669428	Cultural Debris	Nail	3	2	Scrap Bin	
1625	I21	1/16/2007	I21-00085	281261.2118	3845684.44	C - Nail	7.234352589	Cultural Debris	Nail	2	4	Scrap Bin	
1626	I21	1/16/2007	I21-00086	281258.7283	3845685.147	H - No Contact	5.996589094	No Contact	N/A	0	0	No Action Required	
1627	I21	1/16/2007	I21-00087	281269.553	3845690.819	F - Cultural, Other	5.896453857	Cultural Debris	Cultural, Other	1	4	Scrap Bin	1 - 4 inch bolt.
1628	I21	1/16/2007	I21-00088	281264.6701	3845681.74	C - Nail	5.715265264	Cultural Debris	Nail	1	2	Scrap Bin	
1629	I21	1/16/2007	I21-00089	281271.0394	3845674.588	F - Cultural, Other	5.667839527	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Metal 7/8 Socket.
1630	I21	1/16/2007	I21-00090	281259.7495	3845682.21	C - Nail	5.353209972	Cultural Debris	Nail	1	2	Scrap Bin	
1631	I21	1/16/2007	I21-00091	281274.0556	3845688.961	I - Under Road	5.266611099	Other	Under Road	0	0	No Action Required	
1632	I21	1/16/2007	I21-00092	281262.4733	3845700.714	E - Wire	5.201962948	Cultural Debris	Wire	1	4	Scrap Bin	
1633	I21	1/16/2007	I21-00093	281277.4613	3845674.941	E - Wire	5.132558823	Cultural Debris	Wire	2	6	Scrap Bin	Nail, wire.
1634	I21	1/16/2007	I21-00094	281268.9864	3845691.91	C - Nail	4.806929588	Cultural Debris	Nail	2	2	Scrap Bin	
1635	I21	1/16/2007	I21-00095	281274.4666	3845693.271	I - Under Road	4.612691573	Other	Under Road	0	0	No Action Required	
1636	I21	1/16/2007	I21-00096	281271.3679	3845690.691	F - Cultural, Other	4.543017936	Cultural Debris	Cultural, Other	4	66	Scrap Bin	3 nails, 1 - 2inch bolt.
1637	I21	1/16/2007	I21-00097	281283.2739	3845679.133	F - Cultural, Other	4.210399628	Cultural Debris	Cultural, Other	1	24	Scrap Bin	End of 1 inch rod.
1638	I21	1/16/2007	I21-00098	281266.0494	3845675.703	I - Under Road	4.109876156	Other	Under Road	0	0	No Action Required	
1639	I21	1/16/2007	I21-00099	281260.7	3845679.274	C - Nail	4.091310978	Cultural Debris	Nail	3	4	Scrap Bin	
1640	I21	1/16/2007	I21-00100	281262.2232	3845679.213	F - Cultural, Other	3.907924652	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Reinforced concrete, Asphalt.
1641	I21	1/16/2007	I21-00101	281272.4956	3845676.666	F - Cultural, Other	3.851991892	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Wire, Screws.
1642	I21	1/16/2007	I21-00102	281275.0244	3845694.109	I - Under Road	3.83616662	Other	Under Road	0	0	No Action Required	
1643	I21	1/16/2007	I21-00103	281262.7413	3845699.788	F - Cultural, Other	3.653675318	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Nail, Screws.
1644	I21	1/16/2007	I21-00104	281273.8301	3845683.325	I - Under Road	3.629949093	Other	Under Road	0	0	No Action Required	
1645	I21	1/16/2007	I21-00105	281259.646	3845683.435	F - Cultural, Other	3.623369455	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Bolts, Nail.
1646	I21	1/16/2007	I21-00106	281271.588	3845688.297	I - Under Road	3.618653059	Other	Under Road	0	0	No Action Required	
1647	I21	1/16/2007	I21-00107	281257.0139	3845682.472	C - Nail	3.474686861	Cultural Debris	Nail	1	1	Scrap Bin	
1648	I21	1/16/2007	I21-00108	281270.6434	3845676.13	F - Cultural, Other	3.333218098	Cultural Debris	Cultural, Other	3	4	Scrap Bin	
1649	I21	1/16/2007	I21-00109	281274.872	3845690.301	I - Under Road	3.322457552	Other	Under Road	0	0	No Action Required	
1650	I21	1/16/2007	I21-00110	281276.0721	3845674.539	F - Cultural, Other	3.232361555	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nail, Wire, Car battery connecter .
1651	I21	1/16/2007	I21-00111	281255.9197	3845694.879	F - Cultural, Other	3.077281861	Cultural Debris	Cultural, Other	2	8	Scrap Bin	Large piece of concrete, Metal ring.
1652	I21	1/16/2007	I21-00112	281261.9064	3845682.734	C - Nail	3.055027723	Cultural Debris	Nail	1	1	Scrap Bin	
1653	I21	1/16/2007	I21-00113	281272.246	3845689.491	I - Under Road	3.027912617	Other	Under Road	0	0	No Action Required	
1654	I21	1/16/2007	I21-00114	281258.4272	3845672.041	C - Nail	3.01	Cultural Debris	Nail	6	4	Scrap Bin	
1655	I21	1/16/2007	I21-00115	281261.1633	3845698.478	F - Cultural, Other	3	Cultural Debris	Cultural, Other	2	4	Scrap Bin	1 4 inch bolt, screw.
1656	T15		T15-00001	281088.4304	3846033.251		86979.49219			0	0		
1657	T15		T15-00002	281090.5385	3846032.556		55957.28125			0	0		
1658	T15		T15-00003	281087.2362	3846033.909		53034.71875			0	0		
1659	T15		T15-00004	281100.482	3846029.412		1691.308594			0	0		
1660	T15		T15-00005	281101.6457	3846027.993		1074.530518			0	0		
1661	T15	1/22/2007	T15-00006	281086.7689	3846042.94	D - Scrap Metal	829.2972412	Cultural Debris	Scrap Metal	1	1	Scrap Bin	Piece of fence post.
1662	T15		T15-00007	281115.8726	3846036.577		717.4959717			0	0		
1663	T15	1/22/2007	T15-00008	281100.0796	3846015.545	F - Cultural, Other	610.6553345	Cultural Debris	Cultural, Other	1	12	Scrap Bin	3 inch metal post in ground.
1664	T15	1/19/2007	T15-00009	281090.6175	3846015.466	F - Cultural, Other	529.8477783	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Fence post.
1665	T15	1/19/2007	T15-00010	281094.5229	3846013.937	F - Cultural, Other	458.5485229	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Large piece of concrete.
1666	T15	1/19/2007	T15-00011	281096.0462	3846017.69	F - Cultural, Other	352.4690857	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Fence post.
1667	T15	1/19/2007	T15-00012	281095.4918	3846022.899	F - Cultural, Other	302.0925293	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Grounding rod.
1668	T15	1/19/2007	T15-00013	281088.7532	3846026.068	D - Scrap Metal	280.4860535	Cultural Debris	Scrap Metal	5	6	Scrap Bin	
1669	T15	1/22/2007	T15-00014	281101.9555	3846012.814	F - Cultural, Other	237.3560138	Cultural Debris	Cultural, Other	1	24	Scrap Bin	3 inch pipe going below 2 ft.
1670	T15	1/19/2007	T15-00015	281091.9945	3846019.378	F - Cultural, Other	207.2770386	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Large piece of concrete.
1671	T15	1/22/2007	T15-00016	281102.2246	3846034.835	D - Scrap Metal	195.3768311	Cultural Debris	Scrap Metal	16	24	Scrap Bin	
1672	T15	1/19/2007	T15-00017	281097.1676	3846038.089	F - Cultural, Other	195.1841736	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Pipe, Nail.
1673	T15	1/19/2007	T15-00018	281093.1115	3846041.313	F - Cultural, Other	190.2494202	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Pipe, Nails, Lid, Car parts.
1674	T15	1/19/2007	T15-00019	281111.1141	3846039.666	F - Cultural, Other	149.3807831	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Tract seat.
1675	T15	1/19/2007	T15-00020	281093.7433	3846028.767	F - Cultural, Other	148.6243744	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Magnets, Fence brackets.
1676	T15		T15-00021	281087.614	3846035.725		137.9022675			0	0		
1677	T15	1/19/2007	T15-00022	281095.6505	3846038.302	D - Scrap Metal	123.5488892	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
1678	T15	1/19/2007	T15-00023	281096.9542	3846028.943	F - Cultural, Other	102.7843781	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Metal cable .
1679	T15	1/19/2007	T15-00024	281098.2765	3846039.112	D - Scrap Metal	88.9562149	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1680	T15	1/19/2007	T15-00025	281093.8224	3846023.119	D - Scrap Metal	86.56743622	Cultural Debris	Scrap Metal	1	6	Scrap Bin	30 inch Steel rod.
1681	T15	1/19/2007	T15-00026	281086.8705	3846024.77	F - Cultural, Other	73.95146942	Cultural Debris	Cultural, Other	11	12	Scrap Bin	Magnet, Screws, Nails, Fence bracket.
1682	T15	1/19/2007	T15-00027	281115.9147	3846012.749	H - No Contact	73.87318721	No Contact	N/A	0	0	No Action Required	
1683	T15	1/19/2007	T15-00028	281091.2815	3846012.998	D - Scrap Metal	72.91915131	Cultural Debris	Scrap Metal	1	12	Scrap Bin	Banding.
1684	T15	1/19/2007	T15-00029	281095.626	3846030.064	F - Cultural, Other	71.60088348	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Mmetal cable.
1685	T15	1/19/2007	T15-00030	281089.1066	3846027.274	F - Cultural, Other	66.97678375	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pipe.
1686	T15	1/19/2007	T15-00031	281100.4697	3846021.48	F - Cultural, Other	58.55327225	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Bolt
1687	T15	1/19/2007	T15-00032	281095.4901	3846030.984	F - Cultural, Other	55.49926191	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Metal cable.
1688	T15	1/19/2007	T15-00033	281093.5726	3846024.502	D - Scrap Metal	51.39332962	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Steel rod.
1689	T15	1/22/2007	T15-00034	281107.1355	3846039.368	F - Cultural, Other	45.38779068	Cultural Debris	Cultural, Other	5	24	Scrap Bin	Pipe, Nails.

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1690	T15	1/19/2007	T15-00035	281101.0911	3846021.76	F - Cultural, Other	43.12554932	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolts.
1691	T15	1/22/2007	T15-00036	281099.5377	3846036.316	D - Scrap Metal	41.31274796	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1692	T15	1/22/2007	T15-00037	281111.9119	3846017.665	E - Wire	37.63671494	Cultural Debris	Wire	1	12	Scrap Bin	
1693	T15	1/22/2007	T15-00038	281105.4659	3846028.145	D - Scrap Metal	37.34503174	Cultural Debris	Scrap Metal	1	12	Scrap Bin	24 inch flat bar.
1694	T15	1/19/2007	T15-00039	281108.683	3846032.288	D - Scrap Metal	32.13124084	Cultural Debris	Scrap Metal	1	24	Scrap Bin	Metal bar.
1695	T15	1/19/2007	T15-00040	281089.332	3846025.282	C - Nail	30.88770676	Cultural Debris	Nail	1	2	Scrap Bin	
1696	T15	1/22/2007	T15-00041	281107.8907	3846020.115	D - Scrap Metal	27.19548225	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1697	T15	1/19/2007	T15-00042	281113.1064	3846032.264	F - Cultural, Other	26.82285118	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bolt.
1698	T15	1/22/2007	T15-00043	281104.8445	3846035.493	F - Cultural, Other	26.39698601	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pliers.
1699	T15	1/22/2007	T15-00044	281110.5959	3846019.091	F - Cultural, Other	26.31705666	Cultural Debris	Cultural, Other	1	2	Scrap Bin	
1700	T15	1/22/2007	T15-00045	281106.5906	3846012.347	E - Wire	25.24847056	Cultural Debris	Wire	4	6	Scrap Bin	
1701	T15	1/22/2007	T15-00046	281105.4961	3846013.65	E - Wire	24.31726837	Cultural Debris	Wire	2	24	Scrap Bin	Wire cutters, Wire.
1702	T15	1/22/2007	T15-00047	281101.9868	3846025.08	D - Scrap Metal	23.92309952	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1703	T15	1/22/2007	T15-00048	281100.9268	3846032.904	F - Cultural, Other	23.34503174	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Small electric motor.
1704	T15	1/19/2007	T15-00049	281086.3769	3846020.06	F - Cultural, Other	21.31924629	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bolt.
1705	T15	1/19/2007	T15-00050	281091.9704	3846034.025	E - Wire	19.97529221	Cultural Debris	Wire	1	6	Scrap Bin	
1706	T15	1/22/2007	T15-00051	281102.3221	3846037.272	D - Scrap Metal	19.54568481	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
1707	T15	1/19/2007	T15-00052	281098.5629	3846042.457	D - Scrap Metal	19.48714828	Cultural Debris	Scrap Metal	2	12	Scrap Bin	Metal ring, Nails.
1708	T15	1/22/2007	T15-00053	281107.7932	3846021.492	D - Scrap Metal	19.36209106	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1709	T15	1/19/2007	T15-00054	281094.3771	3846036.98	C - Nail	19.35173988	Cultural Debris	Nail	1	6	Scrap Bin	
1710	T15	1/19/2007	T15-00055	281097.728	3846025.403	E - Wire	19.24176407	Cultural Debris	Wire	1	6	Scrap Bin	
1711	T15	1/22/2007	T15-00056	281106.4162	3846013.766	D - Scrap Metal	19.04825783	Cultural Debris	Scrap Metal	3	12	Scrap Bin	Wire, nails.
1712	T15	1/19/2007	T15-00057	281116.7443	3846042.297	H - No Contact	17.44154372	No Contact	N/A	0	0	No Action Required	
1713	T15	1/22/2007	T15-00058	281104.3023	3846037.193	D - Scrap Metal	17.20541763	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1714	T15	1/29/2007	T15-00059	281110.6994	3846014.052		17.07746124	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts, Nails
1715	T15	1/22/2007	T15-00060	281099.903	3846018.756	F - Cultural, Other	16.5881691	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bolt.
1716	T15	1/19/2007	T15-00061	281114.6598	3846013.894	D - Scrap Metal	16.36719894	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1717	T15	1/19/2007	T15-00062	281113.0757	3846016.246	D - Scrap Metal	15.45308781	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
1718	T15	1/19/2007	T15-00063	281100.5857	3846039.63	F - Cultural, Other	15.20919609	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Rebar.
1719	T15	1/22/2007	T15-00064	281108.1146	3846042.501	F - Cultural, Other	15.00034433	Cultural Debris	Cultural, Other	11	24	Scrap Bin	Nails, Brick, Wire.
1720	T15	1/19/2007	T15-00065	281088.5094	3846019.975	D - Scrap Metal	14.19518662	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Steel rod.
1721	T15	1/22/2007	T15-00066	281108.4453	3846026.348	F - Cultural, Other	13.37440109	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Pipe
1722	T15	1/22/2007	T15-00067	281108.4513	3846022.686	F - Cultural, Other	12.95432281	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Pipe.
1723	T15	1/19/2007	T15-00068	281090.5931	3846018.671	F - Cultural, Other	12.90038681	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bolt.
1724	T15	1/19/2007	T15-00069	281114.0446	3846029.022	F - Cultural, Other	12.16944504	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Bolt.
1725	T15	1/19/2007	T15-00070	281115.7872	3846034.445	F - Cultural, Other	11.93669987	Cultural Debris	Cultural, Other	6	24	Scrap Bin	Nails, Hot rock.
1726	T15	1/22/2007	T15-00071	281103.449	3846015.868	E - Wire	11.75293446	Cultural Debris	Wire	4	4	Scrap Bin	
1727	T15	1/19/2007	T15-00072	281096.5399	3846026.214	F - Cultural, Other	11.63394451	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Screw.
1728	T15	1/19/2007	T15-00073	281095.4372	3846036.785	F - Cultural, Other	11.54159927	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Railroad spike.
1729	T15	1/22/2007	T15-00074	281100.0677	3846034.311	F - Cultural, Other	11.32056999	Cultural Debris	Cultural, Other	1	12	Scrap Bin	6 inch bolt.
1730	T15	1/19/2007	T15-00075	281099.976	3846012.956	E - Wire	11.28146935	Cultural Debris	Wire	1	6	Scrap Bin	
1731	T15	1/22/2007	T15-00076	281108.9812	3846013.053	E - Wire	10.37832737	Cultural Debris	Wire	3	6	Scrap Bin	
1732	T15	1/19/2007	T15-00077	281092.1777	3846043.018	I - Under Road	10.29800034	Other	Under Road	0	0	No Action Required	
1733	T15	1/22/2007	T15-00078	281098.8857	3846031.46	D - Scrap Metal	9.753052711	Cultural Debris	Scrap Metal	1	24	Scrap Bin	Chunk of metal.
1734	T15	1/22/2007	T15-00079	281110.8214	3846024.727	D - Scrap Metal	9.643832207	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1735	T15	1/22/2007	T15-00080	281101.7676	3846031.039	C - Nail	9.328147888	Cultural Debris	Nail	1	4	Scrap Bin	
1736	T15	1/19/2007	T15-00081	281086.6329	3846022.643	F - Cultural, Other	9.159680367	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Screw, Nail.
1737	T15	1/22/2007	T15-00082	281103.4368	3846019.377	F - Cultural, Other	8.93040657	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Wheel bearing .
1738	T15	1/22/2007	T15-00083	281100.75	3846024.672	C - Nail	8.57426548	Cultural Debris	Nail	2	6	Scrap Bin	
1739	T15	1/22/2007	T15-00084	281087.3415	3846038.187	D - Scrap Metal	8.497466087	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1740	T15	1/19/2007	T15-00085	281095.0471	3846027.036	E - Wire	8.242390633	Cultural Debris	Wire	1	6	Scrap Bin	
1741	T15	1/22/2007	T15-00086	281098.5506	3846030.71	E - Wire	8.175230026	Cultural Debris	Wire	2	24	Scrap Bin	
1742	T15	1/19/2007	T15-00087	281102.5293	3846038.637	D - Scrap Metal	8.103302956	Cultural Debris	Scrap Metal	3	18	Scrap Bin	
1743	T15	1/19/2007	T15-00088	281089.0702	3846037.802	I - Under Road	7.903884888	Other	Under Road	0	0	No Action Required	
1744	T15	1/22/2007	T15-00089	281104.4605	3846022.083	F - Cultural, Other	7.886929035	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Wire, Nails.
1745	T15	1/19/2007	T15-00090	281091.678	3846041.97	I - Under Road	7.848291874	Other	Under Road	0	0	No Action Required	
1746	T15	1/19/2007	T15-00091	281109.3715	3846038.058	D - Scrap Metal	7.732693672	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1747	T15	1/19/2007	T15-00092	281092.4274	3846037.821	E - Wire	7.58366251	Cultural Debris	Wire	1	4	Scrap Bin	
1748	T15	1/22/2007	T15-00093	281088.467	3846037.979	D - Scrap Metal	7.507608891	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1749	T15	1/22/2007	T15-00094	281102.011	3846014.247	C - Nail	7.418289185	Cultural Debris	Nail	1	12	Scrap Bin	
1750	T15	1/19/2007	T15-00095	281095.6992	3846035.706	F - Cultural, Other	7.085469246	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolt, Nail.
1751	T15	1/19/2007	T15-00096	281104.3572	3846042.378	D - Scrap Metal	7.026826859	Cultural Debris	Scrap Metal	12	24	Scrap Bin	Metal rods, Nails.
1752	T15	1/19/2007	T15-00097	281095.9854	3846027.609	C - Nail	6.946626186	Cultural Debris	Nail	1	6	Scrap Bin	
1753	T15	1/22/2007	T15-00098	281107.4034	3846027	H - No Contact	6.619028091	No Contact	N/A	0	0	No Action Required	
1754	T15	1/19/2007	T15-00099	281115.0378	3846030.966	F - Cultural, Other	6.437073231	Cultural Debris	Cultural, Other	1	12	Scrap Bin	9 inches long.
1755	T15	1/19/2007	T15-00100	281116.2429	3846019.188	D - Scrap Metal	6.364824703	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1756	T15	1/19/2007	T15-00101	281113.4294	3846040.337	E - Wire	6.215593338	Cultural Debris	Wire	1	12	Scrap Bin	
1757	T15	1/19/2007	T15-00102	281086.2795	3846021.437	F - Cultural, Other	6.117060661	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Screw.
1758	T15	1/19/2007	T15-00103	281110.9127	3846015.569	F - Cultural, Other	6.032399654	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Aluminum can, Brick.
1759	T15	1/19/2007	T15-00104	281114.7878	3846017.092	D - Scrap Metal	5.949215889	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1760	T15	1/19/2007	T15-00105	281110.1694	3846016.057	C - Nail	5.877145767	Cultural Debris	Nail	4	6	Scrap Bin	
1761	T15	1/19/2007	T15-00106	281088.8568	3846028.657	C - Nail	5.86368227	Cultural Debris	Nail	2	2	Scrap Bin	
1762	T15	1/19/2007	T15-00107	281115.6286	3846022.856	D - Scrap Metal	5.772398949	Cultural Debris	Scrap Metal	4	12	Scrap Bin	
1763	T15		T15-00108	281114.1727	3846039.849		5.71718502			0	0		
1764	T15	1/19/2007	T15-00109	281110.8826	3846041.506	D - Scrap Metal	5.711924076	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1765	T15	1/19/2007	T15-00110	281090.3087	3846036.085	I - Under Road	5.654429436	Other	Under Road	0	0	No Action Required	
1766	T15	1/19/2007	T15-00111	281113.4962	3846022.942	D - Scrap Metal	5.597385883	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1767	T15	1/22/2007	T15-00112	281111.4673	3846025.616	D - Scrap Metal	5.497674942	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
1768	T15	1/19/2007	T15-00113	281116.4879	3846032.891	H - No Contact	5.38137579	No Contact	N/A	0	0	No Action Required	
1769	T15	1/22/2007	T15-00114	281106.8794	3846025.342	F - Cultural, Other	5.354167461	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Magnets.
1770	T15	1/19/2007	T15-00115	281114.1602	3846020.474	D - Scrap Metal	5.251860619	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
1771	T15	1/19/2007	T15-00116	281089.655	3846029.54	D - Scrap Metal	5.234404564	Cultural Debris	Scrap Metal	2	12	Scrap Bin	Nail, Wire.
1772	T15	1/19/2007	T15-00117	281089.8014	3846037.01	I - Under Road	5.201054573	Other	Under Road	0	0	No Action Required	
1773	T15	1/22/2007	T15-00118	281106.1116	3846017.592	E - Wire	5.152865887	Cultural Debris	Wire	2	2	Scrap Bin	
1774	T15	1/22/2007	T15-00119	281102.9493	3846014.82	F - Cultural, Other	5.10168457	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nail, Wire.
1775	T15	1/22/2007	T15-00120	281107.7813	3846036.443	D - Scrap Metal	4.887889385	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
1776	T15	1/19/2007	T15-00121	281109.6152	3846036.523	D - Scrap Metal	4.650157928	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
1777	T15	1/19/2007	T15-00122	281090.0022	3846022.966	C - Nail	4.539911747	Cultural Debris	Nail	2	6	Scrap Bin	
1778	T15	1/22/2007	T15-00123	281104.5093	3846027.115	H - No Contact	4.395077705	No Contact	N/A	0	0	No Action Required	
1779	T15	1/19/2007	T15-00124	281091.6171	3846040.447	I - Under Road	4.388317108	Other	Under Road	0	0	No Action Required	
1780	T15	1/22/2007	T15-00125	281088.8891	3846038.736	F - Cultural, Other	4.369647503	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Bollt
1781	T15	1/22/2007	T15-00126	281101.1036	3846037.321	D - Scrap Metal	4.361796856	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1782	T15	1/22/2007	T15-00127	281108.4999	3846016.276	C - Nail	4.234478474	Cultural Debris	Nail	2	6	Scrap Bin	
1783	T15	1/19/2007	T15-00128	281088.7775	3846022.863	C - Nail	4.163361549	Cultural Debris	Nail	3	12	Scrap Bin	
1784	T15	1/19/2007	T15-00129	281092.5856	3846026.524	C - Nail	3.933622837	Cultural Debris	Nail	1	4	Scrap Bin	
1785	T15	1/19/2007	T15-00130	281090.1487	3846038.064	I - Under Road	3.92359519	Other	Under Road	0	0	No Action Required	
1786	T15	1/22/2007	T15-00131	281108.1651	3846034.597	C - Nail	3.920284987	Cultural Debris	Nail	1	6	Scrap Bin	
1787	T15	1/19/2007	T15-00132	281091.2086	3846022.613	F - Cultural, Other	3.86113596	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Car part, Nails.
1788	T15	1/19/2007	T15-00133	281090.9651	3846039.405	I - Under Road	3.806821108	Other	Under Road	0	0	No Action Required	
1789	T15	1/22/2007	T15-00134	281108.2806	3846018.421	C - Nail	3.720378876	Cultural Debris	Nail	1	2	Scrap Bin	
1790	T15	1/19/2007	T15-00135	281097.344	3846015.807	C - Nail	3.717345953	Cultural Debris	Nail	1	12	Scrap Bin	

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MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1791	T15	1/19/2007	T15-00136	281091.3629	3846043.366	I - Under Road	3.71514678	Other	Under Road	0	0	No Action Required	
1792	T15	1/19/2007	T15-00137	281111.2936	3846029.434	C - Nail	3.710062113	Cultural Debris	Nail	1	12	Scrap Bin	
1793	T15	1/19/2007	T15-00138	281090.3252	3846027.225	E - Wire	3.668332338	Cultural Debris	Wire	1	6	Scrap Bin	
1794	T15	1/19/2007	T15-00139	281089.3993	3846038.399	I - Under Road	3.622279882	Other	Under Road	0	0	No Action Required	
1795	T15	1/19/2007	T15-00140	281110.3828	3846029.016	F - Cultural, Other	3.575302362	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Bolt.
1796	T15	1/22/2007	T15-00141	281097.655	3846035.018	D - Scrap Metal	3.522238255	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1797	T15	1/19/2007	T15-00142	281090.0693	3846028.456	D - Scrap Metal	3.479572058	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1798	T15	1/22/2007	T15-00143	281107.2266	3846018.768	C - Nail	3.395166159	Cultural Debris	Nail	3	6	Scrap Bin	
1799	T15	1/19/2007	T15-00144	281090.7091	3846029.193	E - Wire	3.388585091	Cultural Debris	Wire	1	6	Scrap Bin	
1800	T15	1/19/2007	T15-00145	281092.6954	3846038.615	D - Scrap Metal	3.370865054	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1801	T15	1/22/2007	T15-00146	281106.1848	3846027.048	H - No Contact	3.341187239	No Contact	N/A	0	0	No Action Required	
1802	T15	1/22/2007	T15-00147	281106.386	3846035.889	E - Wire	3.28044796	Cultural Debris	Wire	1	6	Scrap Bin	10 inches long.
1803	T15	1/19/2007	T15-00148	281102.4684	3846040.928	D - Scrap Metal	3.211024761	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
1804	T15	1/22/2007	T15-00149	281088.1885	3846040.289	F - Cultural, Other	3.17834568	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bollt.
1805	T15	1/22/2007	T15-00150	281089.8214	3846042.97	F - Cultural, Other	3.177345276	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Screw.
1806	T15	1/22/2007	T15-00151	281108.3903	3846017.348	C - Nail	3.154543638	Cultural Debris	Nail	1	4	Scrap Bin	
1807	T15	1/19/2007	T15-00152	281113.0697	3846027.536	H - No Contact	3.144129276	No Contact	N/A	0	0	No Action Required	
1808	T15	1/22/2007	T15-00153	281109.7368	3846020.498	C - Nail	3.114269257	Cultural Debris	Nail	3	44	Scrap Bin	
1809	L18		L18-00001	281183.2834	3845785.843		4878.408566			0	0		
1810	L18		L18-00002	281171.9595	3845791.145		3025.117188			0	0		
1811	L18		L18-00003	281196.6145	3845777.608		2276.670863			0	0		
1812	L18		L18-00004	281195.106	3845778.624		1705.775635			0	0		
1813	L18		L18-00005	281184.4199	3845770.041		1500.780311			0	0		
1814	L18		L18-00006	281186.8503	3845785.82		1081.455078			0	0		
1815	L18		L18-00007	281178.3446	3845775.328		1015.453918			0	0		
1816	L18		L18-00008	281196.4828	3845767.279		947.4110107			0	0		
1817	L18		L18-00009	281170.1436	3845772.452		942.7555542			0	0		
1818	L18		L18-00010	281183.2128	3845778.795		826.6813354			0	0		
1819	L18		L18-00011	281196.1887	3845789.408		793.055936			0	0		
1820	L18		L18-00012	281187.7715	3845788.52		771.709036			0	0		
1821	L18		L18-00013	281168.7913	3845795.849		707.630127			0	0		
1822	L18		L18-00014	281192.0232	3845789.274		700.1310425			0	0		
1823	L18		L18-00015	281192.7057	3845794.892		692.531189			0	0		
1824	L18		L18-00016	281198.5181	3845787.641		668.9834595			0	0		
1825	L18		L18-00017	281193.3489	3845791.209		646.0356034			0	0		
1826	L18		L18-00018	281170.1141	3845781.118		586.0538809			0	0		
1827	L18		L18-00019	281186.0219	3845783.556		580.301675			0	0		
1828	L18		L18-00020	281175.6516	3845776.656		534.1447754			0	0		
1829	L18		L18-00021	281193.8206	3845788.44		530.3081665			0	0		
1830	L18		L18-00022	281169.9729	3845768.187		529.0734863			0	0		
1831	L18		L18-00023	281178.7896	3845790.262		506.9608459			0	0		
1832	L18		L18-00024	281188.5626	3845779.046		495.7898593			0	0		
1833	L18		L18-00025	281170.2879	3845773.899		476.1928628			0	0		
1834	L18		L18-00026	281174.5787	3845792.722		460.7061301			0	0		
1835	L18		L18-00027	281182.5062	3845787.824		449.4275208			0	0		
1836	L18		L18-00028	281191.3262	3845777.384		407.0246688			0	0		
1837	L18		L18-00029	281198.3633	3845794.791		373.1063936			0	0		
1838	L18		L18-00030	281173.8165	3845779.119		335.104588			0	0		
1839	L18		L18-00031	281191.426	3845785.789		315.9143982			0	0		
1840	L18		L18-00032	281183.5481	3845790.987		310.1842957			0	0		
1841	L18		L18-00033	281168.2672	3845782.749		300.7084351			0	0		
1842	L18		L18-00034	281177.1627	3845780.105		273.6181946			0	0		
1843	L18		L18-00035	281170.1957	3845787.237		271.06905			0	0		
1844	L18		L18-00036	281189.205	3845787.619		267.4094926			0	0		
1845	L18		L18-00037	281175.2373	3845781.555		265.7273865			0	0		
1846	L18		L18-00038	281171.6031	3845795.208		250.6444706			0	0		
1847	L18		L18-00039	281179.3804	3845774.524		246.4259491			0	0		
1848	L18		L18-00040	281183.5397	3845767.763		234.5638249			0	0		
1849	L18		L18-00041	281172.1528	3845779.703		226.373605			0	0		
1850	L18		L18-00042	281173.5071	3845787.879		211.7558746			0	0		
1851	L18		L18-00043	281185.0146	3845795.107		183.7100611			0	0		
1852	L18		L18-00044	281179.8251	3845770.387		177.0168762			0	0		
1853	L18		L18-00045	281194.1825	3845793.679		173.8117608			0	0		
1854	L18		L18-00046	281184.5958	3845775.231		170.1753693			0	0		
1855	L18		L18-00047	281181.6043	3845776.723		169.8700562			0	0		
1856	L18		L18-00048	281188.5077	3845792.924		169.0301514			0	0		
1857	L18		L18-00049	281169.4576	3845785.117		164.1823384			0	0		
1858	L18		L18-00050	281172.4396	3845769.187		162.876123			0	0		
1859	L18		L18-00051	281178.1302	3845795.11		162.4215384			0	0		
1860	L18		L18-00052	281167.6516	3845771.179		160.6245728			0	0		
1861	L18		L18-00053	281168.7674	3845772.627		155.3951915			0	0		
1862	L18		L18-00054	281173.0493	3845772.183		150.1903955			0	0		
1863	L18		L18-00055	281170.0454	3845770.562		148.7058698			0	0		
1864	L18		L18-00056	281177.1504	3845775.986		148.1472626			0	0		
1865	L18		L18-00057	281197.651	3845772.233		132.2974028			0	0		
1866	L18	1/23/2007	L18-00058	281177.4002	3845774.603	E - Wire	130.9394989	Cultural Debris	Wire	5	6	Scrap Bin	
1867	L18		L18-00059	281194.6234	3845774.776		130.7400057			0	0		
1868	L18		L18-00060	281182.5779	3845765.489		115.1470907			0	0		
1869	L18		L18-00061	281195.1973	3845769.467		110.1208115			0	0		
1870	L18		L18-00062	281170.217	3845793.351		107.1233368			0	0		
1871	L18		L18-00063	281196.8121	3845786.947		101.3067474			0	0		
1872	L18		L18-00064	281170.814	3845785.394		98.69385529			0	0		
1873	L18	1/17/2007	L18-00065	281178.2165	3845768.315		98.40879059	MEC	Signal, Illumination,	1	8	Left in Place	Base EOD contacted. Item removed by EOD team.
1874	L18	1/23/2007	L18-00066	281178.4421	3845777.765	F - Cultural, Other	91.75624847	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Concrete, Nails, Wire.
1875	L18		L18-00067	281193.8022	3845784.169		89.51102448			0	0		
1876	L18		L18-00068	281169.3884	3845791.706		87.19664764			0	0		
1877	L18		L18-00069	281168.6083	3845779.837		83.69650269			0	0		
1878	L18		L18-00070	281181.5676	3845771.995		71.70262146			0	0		
1879	L18		L18-00071	281172.5564	3845775.56		68.70350647			0	0		
1880	L18	1/23/2007	L18-00072	281179.7947	3845777.253	F - Cultural, Other	64.51855469	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Socket, Nails .
1881	L18	1/17/2007	L18-00073	281191.4251	3845773.734	F - Cultural, Other	62.66139486	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Grounding rod.
1882	L18	1/23/2007	L18-00074	281169.7292	3845765.909	F - Cultural, Other	61.77092743	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolts .
1883	L18		L18-00075	281195.468	3845785.001		60.90049401			0	0		
1884	L18	1/17/2007	L18-00076	281192.9429	3845770.32	F - Cultural, Other	57.34848022	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Wire, Bolt, Meral strap, Nail.
1885	L18	1/23/2007	L18-00077	281175.9808	3845788.696	D - Scrap Metal	55.82326126	Cultural Debris	Scrap Metal	3	6	Scrap Bin	17 inch Steel rod. , Bolts.
1886	L18	1/23/2007	L18-00078	281170.5701	3845775.487	D - Scrap Metal	55.69023514	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
1887	L18		L18-00079	281172.7758	3845777.229		54.73414612			0	0		
1888	L18		L18-00080	281196.1594	3845792.756		53.0902947			0	0		
1889	L18	1/23/2007	L18-00081	281189.9636	3845772.117	F - Cultural, Other	52.87809372	Cultural Debris	Cultural, Other	19	6	Scrap Bin	Nails, Wire
1890	L18	1/17/2007	L18-00082	281193.4304	3845771.063	F - Cultural, Other	51.4904747	Cultural Debris	Cultural, Other	20	12	Scrap Bin	Wire, Nails.
1891	L18		L18-00083	281168.2406	3845789.383		48.63069508			0	0		
1892	L18		L18-00084	281194.8988	3845777.259		47.20669556			0	0		
1893	L18	1/17/2007	L18-00085	281191.499	3845772.361	F - Cultural, Other	46.6677742	Cultural Debris	Cultural, Other	70	4	Scrap Bin	Screws
1894	L18	1/17/2007	L18-00086	281186.2286	3845766.469	F - Cultural, Other	45.87199783	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Metal rod in concrete.
1895	L18	1/23/2007	L18-00087	281188.7007	3845783.177	C - Nail	45.64882342	Cultural Debris	Nail	2	4	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1896	L18	1/23/2007	L18-00088	281184.2365	3845789.128	C - Nail	45.29203415	Cultural Debris	Nail	5	6	Scrap Bin	
1897	L18	1/23/2007	L18-00089	281172.2945	3845784.266	E - Wire	45.15990067	Cultural Debris	Wire	1	4	Scrap Bin	
1898	L18	1/23/2007	L18-00090	281173.0045	3845765.627	F - Cultural, Other	41.09729354	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Knife blade, Nail, Wire.
1899	L18	1/17/2007	L18-00091	281183.7063	3845775.876	F - Cultural, Other	39.42117691	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Grounding rod, nail.
1900	L18	1/23/2007	L18-00092	281175.7112	3845795.86	F - Cultural, Other	38.09069226	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Banding, Pipe, 3 x 3 inch metal piece.
1901	L18	1/23/2007	L18-00093	281189.2386	3845780.69	F - Cultural, Other	38.07437515	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Tent Stake.
1902	L18	1/23/2007	L18-00094	281172.3638	3845785.654	D - Scrap Metal	37.40781024	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1903	L18		L18-00095	281196.8285	3845765.272		37.40110468			0	0		
1904	L18	1/17/2007	L18-00096	281193.1745	3845772.294	F - Cultural, Other	37.0586319	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Wre. Nails.
1905	L18	1/17/2007	L18-00097	281187.1965	3845765.304	F - Cultural, Other	36.37385545	Cultural Debris	Cultural, Other	2	2	Scrap Bin	3 inch rod, nail.
1906	L18		L18-00098	281173.3372	3845774.621		36.11698942			0	0		
1907	L18	1/17/2007	L18-00099	281193.4866	3845765.406	D - Scrap Metal	35.77081991	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
1908	L18	1/23/2007	L18-00100	281178.7954	3845767.529	C - Nail	35.77067184	Cultural Debris	Nail	3	4	Scrap Bin	
1909	L18	1/17/2007	L18-00101	281192.9368	3845766.353	F - Cultural, Other	35.40253448	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Nails, Metal bracket,
1910	L18	1/23/2007	L18-00102	281195.1966	3845786.569	F - Cultural, Other	35.33115989	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Wire, Nails, Scrap metal.
1911	L18	1/17/2007	L18-00103	281189.3516	3845773.599	F - Cultural, Other	32.24500767	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Bolt, Screws.
1912	L18	1/23/2007	L18-00104	281175.9922	3845765.48	F - Cultural, Other	32.0638598	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Pipe in concrete.
1913	L18	1/23/2007	L18-00105	281182.139	3845774.241	D - Scrap Metal	31.91338465	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
1914	L18	1/23/2007	L18-00106	281177.5587	3845778.563	F - Cultural, Other	31.73007011	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt.
1915	L18	1/23/2007	L18-00107	281169.0228	3845794.009	D - Scrap Metal	31.55038834	Cultural Debris	Scrap Metal	1	2	Scrap Bin	
1916	L18	1/23/2007	L18-00108	281178.6311	3845782.487	F - Cultural, Other	31.30430222	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Bolts.
1917	L18		L18-00109	281196.9645	3845794.569		29.65931129			0	0		
1918	L18	1/23/2007	L18-00110	281174.2959	3845774.773	F - Cultural, Other	28.84556758	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Wrench
1919	L18	1/17/2007	L18-00111	281184.6812	3845777.363	F - Cultural, Other	28.43482971	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Pzdlock, Nails.
1920	L18	1/23/2007	L18-00112	281171.2524	3845765.848	C - Nail	28.20754623	Cultural Debris	Nail	6	6	Scrap Bin	
1921	L18	1/23/2007	L18-00113	281192.4021	3845785.233	D - Scrap Metal	28.01674419	Cultural Debris	Scrap Metal	2	18	Scrap Bin	
1922	L18	1/17/2007	L18-00114	281188.2332	3845774.627	F - Cultural, Other	27.16542244	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Dog chain, Nails.
1923	L18	1/23/2007	L18-00115	281181.458	3845773.068	F - Cultural, Other	27.16173935	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Tire iron, Wire, Nails.
1924	L18	1/23/2007	L18-00116	281175.5786	3845786.271	F - Cultural, Other	26.65340805	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Meral rod.
1925	L18	1/24/2007	L18-00117	281186.5638	3845774.847	C - Nail	26.62430573	Cultural Debris	Nail	1	6	Scrap Bin	
1926	L18	1/23/2007	L18-00118	281174.7999	3845770.372	E - Wire	26.60127374	Cultural Debris	Wire	3	6	Scrap Bin	
1927	L18	1/23/2007	L18-00119	281169.0652	3845776.005	F - Cultural, Other	25.50756645	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Toy, Nail.
1928	L18	1/23/2007	L18-00120	281190.4512	3845784.303	D - Scrap Metal	24.33714104	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
1929	L18	1/23/2007	L18-00121	281174.4633	3845766.024	F - Cultural, Other	24.24848938	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Pipe in concrete.
1930	L18	1/17/2007	L18-00122	281195.2323	3845781.147	F - Cultural, Other	23.73184218	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Socket, Wire, Nails.
1931	L18	1/17/2007	L18-00123	281194.2102	3845767.675	F - Cultural, Other	23.71381569	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Wire, Screws.
1932	L18	1/23/2007	L18-00124	281171.874	3845777.57	F - Cultural, Other	23.68738937	Cultural Debris	Cultural, Other	3	2	Scrap Bin	COMMUNICATION Cable.
1933	L18	1/23/2007	L18-00125	281188.5227	3845784.163	D - Scrap Metal	23.3047633	Cultural Debris	Scrap Metal	5	18	Scrap Bin	
1934	L18	1/23/2007	L18-00126	281180.7391	3845777.978	F - Cultural, Other	22.63678551	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Metal rod, Nail.
1935	L18	1/23/2007	L18-00127	281185.7108	3845772.592	D - Scrap Metal	22.54540825	Cultural Debris	Scrap Metal	5	6	Scrap Bin	Screws
1936	L18	1/17/2007	L18-00128	281197.4335	3845779.599	F - Cultural, Other	22.0533886	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Spring, Nails.
1937	L18	1/23/2007	L18-00129	281180.8771	3845780.115	F - Cultural, Other	21.75922797	Cultural Debris	Cultural, Other	2	2	Scrap Bin	Reinforced concrete .
1938	L18	1/23/2007	L18-00130	281169.8902	3845778.922	D - Scrap Metal	21.73232971	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1939	L18	1/23/2007	L18-00131	281183.4505	3845780.921	F - Cultural, Other	20.87400627	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Fence post.
1940	L18	1/23/2007	L18-00132	281190.049	3845781.878	C - Nail	20.76569939	Cultural Debris	Nail	1	4	Scrap Bin	
1941	L18	1/17/2007	L18-00133	281198.6339	3845790.536	E - Wire	20.5402565	Cultural Debris	Wire	2	4	Scrap Bin	
1942	L18	1/23/2007	L18-00134	281182.1921	3845780.335	D - Scrap Metal	20.39301	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1943	L18	1/17/2007	L18-00135	281190.524	3845767.06	F - Cultural, Other	19.83174324	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Grounding rod.
1944	L18	1/23/2007	L18-00136	281180.5261	3845795.532	D - Scrap Metal	19.40864563	Cultural Debris	Scrap Metal	8	6	Scrap Bin	
1945	L18	1/23/2007	L18-00137	281180.3552	3845776.01	F - Cultural, Other	19.23254013	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Communication cable.
1946	L18	1/23/2007	L18-00138	281188.7882	3845772.171	C - Nail	19.1873053	Cultural Debris	Nail	31	6	Scrap Bin	
1947	L18	1/17/2007	L18-00139	281193.0609	3845781.968	D - Scrap Metal	18.90954557	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
1948	L18	1/17/2007	L18-00140	281186.6796	3845777.741	C - Nail	18.70517731	Cultural Debris	Nail	3	6	Scrap Bin	
1949	L18	1/23/2007	L18-00141	281182.429	3845772.652	C - Nail	18.47263464	Cultural Debris	Nail	5	6	Scrap Bin	
1950	L18	1/23/2007	L18-00142	281178.4237	3845769.68	F - Cultural, Other	18.3395977	Cultural Debris	Cultural, Other	1	24	Scrap Bin	Metal post extends below two feet.
1951	L18	1/17/2007	L18-00143	281197.8053	3845792.705	F - Cultural, Other	18.05287552	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Coat hanger.
1952	L18	1/23/2007	L18-00144	281168.273	3845767.645	C - Nail	16.80641937	Cultural Debris	Nail	5	6	Scrap Bin	
1953	L18	1/17/2007	L18-00145	281197.8052	3845785.076	F - Cultural, Other	16.62771988	Cultural Debris	Cultural, Other	2	24	Scrap Bin	Wire, Burned materil.
1954	L18	1/23/2007	L18-00146	281185.5039	3845790.298	D - Scrap Metal	16.05804062	Cultural Debris	Scrap Metal	3	6	Scrap Bin	Cable, Wire, Nails.
1955	L18	1/23/2007	L18-00147	281179.2586	3845779.106	E - Wire	15.62964439	Cultural Debris	Wire	1	4	Scrap Bin	
1956	L18	1/17/2007	L18-00148	281185.5609	3845765.233	F - Cultural, Other	15.56785636	Cultural Debris	Cultural, Other	6	2	Scrap Bin	Cable, Scrap metal.
1957	L18	1/23/2007	L18-00149	281185.312	3845792.442	C - Nail	15.2752174	Cultural Debris	Nail	8	6	Scrap Bin	
1958	L18	1/18/2007	L18-00150	281180.1786	3845783.036	E - Wire	14.8391943	Cultural Debris	Wire	2	4	Scrap Bin	
1959	L18	1/17/2007	L18-00151	281185.723	3845776.711	F - Cultural, Other	14.75351429	Cultural Debris	Cultural, Other	9	6	Scrap Bin	Wire, nails..
1960	L18	1/17/2007	L18-00152	281197.2934	3845783.724	F - Cultural, Other	14.67720127	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Nails, Burned material.
1961	L18	1/23/2007	L18-00153	281187.6241	3845782.28	F - Cultural, Other	14.61677074	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Wire, Nail.
1962	L18	1/17/2007	L18-00154	281193.8022	3845780.354	F - Cultural, Other	14.36555481	Cultural Debris	Cultural, Other	7	12	Scrap Bin	Wire, Nails, large staples.
1963	L18	1/23/2007	L18-00155	281185.6315	3845770.612	F - Cultural, Other	13.92425251	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Dog chain, Wire.
1964	L18	1/24/2007	L18-00156	281179.0515	3845785.369	F - Cultural, Other	13.55601501	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Nails, Wire, Nuts.
1965	L18	1/24/2007	L18-00157	281174.9082	3845773.33	F - Cultural, Other	13.45035934	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Meter tag, Nail.
1966	L18	1/17/2007	L18-00158	281197.5432	3845782.341	F - Cultural, Other	13.30035496	Cultural Debris	Cultural, Other	0	0	Scrap Bin	
1967	L18	1/24/2007	L18-00159	281177.0894	3845770.649	F - Cultural, Other	13.05957031	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Fence wire.
1968	L18	1/23/2007	L18-00160	281194.1998	3845790.032	D - Scrap Metal	13.01566457	Cultural Debris	Scrap Metal	1	24	Scrap Bin	Pipe
1969	L18	1/23/2007	L18-00161	281178.2471	3845772.891	F - Cultural, Other	12.95703983	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Fence post.
1970	L18	1/23/2007	L18-00162	281178.0155	3845770.917	D - Scrap Metal	12.49660683	Cultural Debris	Scrap Metal	1	6	Scrap Bin	Fence wire.
1971	L18	1/23/2007	L18-00163	281173.9028	3845767.267	F - Cultural, Other	12.13586044	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Meetal rod.
1972	L18	1/17/2007	L18-00164	281190.8774	3845768.266	C - Nail	11.99071026	Cultural Debris	Nail	1	6	Scrap Bin	6 inch llong.
1973	L18	1/23/2007	L18-00165	281177.6806	3845785.424	E - Wire	11.92344379	Cultural Debris	Wire	1	4	Scrap Bin	
1974	L18	1/23/2007	L18-00166	281178.564	3845780.812	C - Nail	11.90553188	Cultural Debris	Nail	2	6	Scrap Bin	
1975	L18	1/23/2007	L18-00167	281177.2933	3845789.157	F - Cultural, Other	11.73319988	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Bolt.
1976	L18	1/17/2007	L18-00168	281191.371	3845769.162	F - Cultural, Other	11.41512203	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Wire, Nails.
1977	L18	1/23/2007	L18-00169	281170.8856	3845783.4	D - Scrap Metal	11.41303561	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
1978	L18	1/17/2007	L18-00170	281177.9789	3845766.189	F - Cultural, Other	11.28429985	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Magnet, Spring.
1979	L18	1/23/2007	L18-00171	281169.0042	3845766.853	F - Cultural, Other	11.14927959	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts .
1980	L18	1/23/2007	L18-00172	281187.0999	3845772.994	F - Cultural, Other	11.06880569	Cultural Debris	Cultural, Other	20	12	Scrap Bin	Nails, Screws.
1981	L18	1/23/2007	L18-00173	281176.7117	3845772.647	C - Nail	10.8287859	Cultural Debris	Nail	3	6	Scrap Bin	
1982	L18	1/17/2007	L18-00174	281187.2158	3845775.889	F - Cultural, Other	10.59218502	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Communication Cable, Nail,
1983	L18	1/23/2007	L18-00175	281178.4056	3845784.48	F - Cultural, Other	10.23547173	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Welding rods.
1984	L18	1/23/2007	L18-00176	281174.9663	3845768.406	E - Wire	10.15021721	Cultural Debris	Wire	2	4	Scrap Bin	
1985	L18	1/23/2007	L18-00177	281186.7042	3845789.792	C - Nail	10.05790043	Cultural Debris	Nail	3	6	Scrap Bin	
1986	L18	1/23/2007	L18-00178	281167.4018	3845768.748	C - Nail	9.716383934	Cultural Debris	Nail	4	6	Scrap Bin	
1987	L18	1/23/2007	L18-00179	281180.3917	3845769.296	C - Nail	8.65485096	Cultural Debris	Nail	6	2	Scrap Bin	
1988	L18	1/23/2007	L18-00180	281185.8877	3845788.452	C - Nail	8.403846741	Cultural Debris	Nail	4	4	Scrap Bin	
1989	L18	1/23/2007	L18-00181	281178.0523	3845787.087	F - Cultural, Other	8.088500977	Cultural Debris	Cultural, Other	1	18	Scrap Bin	Wire anchor.
1990	L18	1/17/2007	L18-00182	281179.2718	3845766.519	C - Nail	8.016241662	Cultural Debris	Nail	3	4	Scrap Bin	
1991	L18	1/23/2007	L18-00183	281172.7321	3845783.299	D - Scrap Metal	7.987690077	Cultural Debris	Scrap Metal	2	6	Scrap Bin	
1992	L18	1/17/2007	L18-00184	281191.7121	3845766.25	C - Nail	7.807498455	Cultural Debris	Nail	3	2	Scrap Bin	
1993	L18	1/23/2007	L18-00185	281186.1642	3845769.427	E - Wire	7.722017199	Cultural Debris	Wire	4	12	Scrap Bin	
1994	L18	1/23/2007	L18-00186	281179.7458	3845768.407	C - Nail	7.640863895	Cultural Debris	Nail	1	6	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
1995	L18	1/17/2007	L18-00187	281191.7609	3845767.468	F - Cultural, Other	7.49401474	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Metal rod 8 inches long, Wire.
1996	L18	1/23/2007	L18-00188	281184.1693	3845772.196	C - Nail	7.320425034	Cultural Debris	Nail	2	6	Scrap Bin	Magnet, Nail.
1997	L18	1/17/2007	L18-00189	281189.2299	3845768.515	C - Nail	7.126439608	Cultural Debris	Nail	4	18	Scrap Bin	
1998	L18	1/23/2007	L18-00190	281193.5359	3845787.038	D - Scrap Metal	7.115706074	Cultural Debris	Scrap Metal	5	12	Scrap Bin	
1999	L18	1/23/2007	L18-00191	281177.4247	3845782.841	F - Cultural, Other	6.914562702	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Bike chain.
2000	L18	1/23/2007	L18-00192	281182.2869	3845793.783	C - Nail	6.259002209	Cultural Debris	Nail	5	6	Scrap Bin	
2001	L18	1/23/2007	L18-00193	281179.9472	3845792.504	D - Scrap Metal	6.222972393	Cultural Debris	Scrap Metal	2	4	Scrap Bin	Banding .
2002	L18	1/17/2007	L18-00194	281179.6154	3845765.58	F - Cultural, Other	5.599428864	Cultural Debris	Cultural, Other	1	24	Scrap Bin	1 x 1 Magnet.
2003	L18	1/23/2007	L18-00195	281187.0576	3845790.999	D - Scrap Metal	5.548462868	Cultural Debris	Scrap Metal	3	6	Scrap Bin	Cable, Nails.
2004	L18	1/23/2007	L18-00196	281180.8246	3845791.553	F - Cultural, Other	5.493545532	Cultural Debris	Cultural, Other	7	6	Scrap Bin	Cable, Nails, Staples .
2005	L18	1/23/2007	L18-00197	281174.1285	3845784.346	F - Cultural, Other	5.487981796	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Banding strap.
2006	L18	1/23/2007	L18-00198	281191.3468	3845783.809	D - Scrap Metal	4.69264698	Cultural Debris	Scrap Metal	10	12	Scrap Bin	
2007	L18	1/23/2007	L18-00199	281176.8215	3845786.831	E - Wire	4.58605051	Cultural Debris	Wire	1	4	Scrap Bin	
2008	L18	1/23/2007	L18-00200	281170.6311	3845777.01	C - Nail	4.225926876	Cultural Debris	Nail	1	12	Scrap Bin	
2009	L18	1/23/2007	L18-00201	281191.8281	3845780.586	C - Nail	3.945129156	Cultural Debris	Nail	1	4	Scrap Bin	
2010	L18	1/23/2007	L18-00202	281175.4872	3845783.986	C - Nail	3.674183846	Cultural Debris	Nail	2	6	Scrap Bin	
2011	L18	1/23/2007	L18-00203	281192.5052	3845787.831	C - Nail	3.300824103	Cultural Debris	Nail	2	4	Scrap Bin	
2012	L18	1/23/2007	L18-00204	281181.2268	3845793.978	C - Nail	3.293344736	Cultural Debris	Nail	6	4	Scrap Bin	
2013	L18	1/23/2007	L18-00205	281167.6639	3845775.298	C - Nail	3.225182295	Cultural Debris	Nail	1	6	Scrap Bin	
2014	L18	1/23/2007	L18-00206	281177.0104	3845787.739	F - Cultural, Other	3.121263981	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bolt.
2015	L18	1/23/2007	L18-00207	281177.4306	3845771.551	E - Wire	3	Cultural Debris	Wire	1	2	Scrap Bin	7 inches long.
2016	H14		H14-00001	281042.0343	3845659.188		355192.8125			0	0		
2017	H14		H14-00002	281053.5742	3845669.254		140529.5156			0	0		
2018	H14		H14-00003	281054.0616	3845666.183		2646.351074			0	0		
2019	H14		H14-00004	281058.0585	3845663.124		2317.612305			0	0		
2020	H14		H14-00005	281065.6135	3845657.482		2200.401123			0	0		
2021	H14		H14-00006	281048.5232	3845665.031		2090.208984			0	0		
2022	H14		H14-00007	281052.2764	3845667.322		1602.074951			0	0		
2023	H14		H14-00008	281054.1285	3845656.416		759.722168			0	0		
2024	H14		H14-00009	281053.7021	3845661.01		378.8171997			0	0		
2025	H14		H14-00010	281050.1805	3845668.322		288.3873291			0	0		
2026	H14		H14-00011	281057.2029	3845659.136		243.9330071			0	0		
2027	H14		H14-00012	281050.7093	3845650.074		235.8677749			0	0		
2028	H14		H14-00013	281045.2756	3845656.313		167.8449707			0	0		
2029	H14		H14-00014	281048.322	3845652.377		138.8376007			0	0		
2030	H14		H14-00015	281062.2016	3845667.535		131.1291199			0	0		
2031	H14		H14-00016	281043.8378	3845657.555		130.4361571			0	0		
2032	H14		H14-00017	281058.2291	3845667.389		119.2462235			0	0		
2033	H14		H14-00018	281051.3626	3845671.173		117.0655212			0	0		
2034	H14	1/25/2007	H14-00019	281045.4038	3845670.954	F - Cultural, Other	102.9022141	Cultural Debris	Cultural, Other	2	6	Scrap Bin	2 - 20 inch pieces or steel rod.
2035	H14		H14-00020	281049.8148	3845672.518		98.95979783			0	0		
2036	H14		H14-00021	281056.0905	3845667.322		95.72662354			0	0		
2037	H14		H14-00022	281047.5133	3845654.432		95.08944945			0	0		
2038	H14	1/25/2007	H14-00023	281049.0471	3845659.06	F - Cultural, Other	94.7649231	Cultural Debris	Cultural, Other	3	18	Scrap Bin	Reinforced Concrete, Rebar,
2039	H14		H14-00024	281063.0391	3845658.938		93.43180662			0	0		
2040	H14		H14-00025	281058.4423	3845665.092		87.84289551			0	0		
2041	H14	1/25/2007	H14-00026	281041.4921	3845668.517	F - Cultural, Other	83.66338348	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolt, Rebar.
2042	H14		H14-00027	281060.855	3845660.571		78.00854492			0	0		
2043	H14	1/29/2007	H14-00028	281061.909	3845656.41		76.32613373	Cultural Debris	Cultural, Other	9	12	Scrap Bin	Bolts, Nails
2044	H14	1/29/2007	H14-00029	281041.2489	3845651.098		73.54787627	Cultural Debris	Culture, Other	1	6	Left in Place	Grounding Rod
2045	H14	1/29/2007	H14-00030	281066.8015	3845652.858		73.00946045	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Pipe Collar, Cable
2046	H14	1/29/2007	H14-00031	281066.6065	3845647.983		72.7261734	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Cable
2047	H14		H14-00032	281048.2736	3845677.857		70.96242523			0	0		
2048	H14		H14-00033	281048.2939	3845673.941		66.53902615			0	0		
2049	H14	1/29/2007	H14-00034	281065.1079	3845663.91		66.00741577	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Anchor Tiedown
2050	H14	1/29/2007	H14-00035	281058.9983	3845655.622		65.87855055	Cultural Debris	Cultural, Other	38	12	Scrap Bin	Nails, Nuts, Beer Can
2051	H14		H14-00036	281051.0516	3845651.962		65.16345215			0	0		
2052	H14	1/29/2007	H14-00037	281066.8322	3845665.062		62.4565506	Cultural Debris	Cultural, Other	1	6	Left in Place	Grounding Rod
2053	H14	1/29/2007	H14-00038	281053.1597	3845655.082		61.90403366	Cultural Debris	Cultural, Other	1	24	Left in Place	Rebar
2054	H14	1/29/2007	H14-00039	281067.3806	3845671.142		61.08535004	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Fish Hook Remover, Screws, Nails
2055	H14	1/29/2007	H14-00040	281065.0775	3845666.963		60.73355103	Cultural Debris	Culture, Other	1	12	Scrap Bin	12" Bolt
2056	H14	1/29/2007	H14-00041	281049.419	3845675.98		58.78982162	Cultural Debris	Culture, Other	3	6	Scrap Bin	Nails, Screw
2057	H14	1/29/2007	H14-00042	281055.7736	3845655.587		58.76515198	Cultural Debris	Cultural, Other	1	4	Left in Place	Water Pipe/Valve
2058	H14	1/29/2007	H14-00043	281069.1353	3845669.241		58.71141434	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Scrap Metal
2059	H14	1/29/2007	H14-00044	281068.5321	3845665.604		56.95272446	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Screws
2060	H14	1/29/2007	H14-00045	281059.3868	3845669.631		54.13048935	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Concrete, Wire
2061	H14	1/25/2007	H14-00046	281051.8254	3845656.051	F - Cultural, Other	53.61474991	Cultural Debris	Cultural, Other	1	0	Scrap Bin	Sewer hookup.
2062	H14	1/29/2007	H14-00047	281060.0324	3845651.45		53.14171982	Cultural Debris	Cultural, Other	2	12	Left in Place	Grounding Rod, Communication Wire
2063	H14	1/29/2007	H14-00048	281048.694	3845676.925		53.14125443	Cultural Debris	Culture, Other	1	24	Left in Place	Pipe
2064	H14	1/29/2007	H14-00049	281059.0637	3845653.93		52.70853043	Cultural Debris	Cultural, Other	5	12	Scrap Bin	Scrap Metal, Nails, Washer
2065	H14	1/25/2007	H14-00050	281054.0615	3845658.555	F - Cultural, Other	48.94248962	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Bolts, Nails.
2066	H14	1/25/2007	H14-00051	281050.0098	3845660.242	C - Nail	47.70915604	Cultural Debris	Nail	4	10	Scrap Bin	
2067	H14	1/25/2007	H14-00052	281044.4164	3845650.092	F - Cultural, Other	45.76233673	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Wire, Waher.
2068	H14	1/29/2007	H14-00053	281062.5733	3845669.199		45.50149155	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Water Valve, Spike, Nail
2069	H14	1/29/2007	H14-00054	281068.2581	3845677.82		43.47115707	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Anchor in Concrete, Nail
2070	H14	1/29/2007	H14-00055	281055.9444	3845671.295		42.70631409	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Concrete, Bolt
2071	H14	1/29/2007	H14-00056	281063.3713	3845654.826		41.62774277	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Bolts, Nails, Bracket
2072	H14	1/29/2007	H14-00057	281067.0515	3845666.731		39.63186646	Cultural Debris	Cultural, Other	7	6	Scrap Bin	Banding, Wire, Bolt, Communication Cable (LIP)
2073	H14	1/25/2007	H14-00058	281047.4385	3845649.361	D - Scrap Metal	37.23059464	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
2074	H14	1/29/2007	H14-00059	281056.7609	3845676.449		37.0646019	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Metal Rod, Wire, Nail
2075	H14	1/29/2007	H14-00060	281064.0052	3845674.481		36.73219681	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Nails, Wire, Screw
2076	H14	1/29/2007	H14-00061	281061.6043	3845648.794		36.12482834	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Cable, Nail
2077	H14		H14-00062	281046.464	3845674.803		35.55552345			0	0		
2078	H14	1/29/2007	H14-00063	281065.1201	3845668.029		35.29551315	Cultural Debris	Cultural, Other	9	10	Scrap Bin	Banding, Hinge, Nails
2079	H14	1/29/2007	H14-00079	281065.6198	3845672.891		26.2259922	Cultural Debris	Cultural, Other	5	4	Scrap Bin	Pipe Collar, Cable (LIP)
2080	H14	1/29/2007	H14-00080	281067.2646	3845656.806		25.98200226	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Washer, Nails, Cable (LIP)
2081	H14	1/29/2007	H14-00081	281060.904	3845649.487		25.04556315	Cultural Debris	Cultural, Other	1	1	Scrap Bin	Screws
2082	H14	1/29/2007	H14-00082	281057.7478	3845670.612		23.64508629	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Concrete,Wire, Nail
2083	H14	1/29/2007	H14-00083	281060.7575	3845658.134		23.5460453	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolts
2084	H14	1/29/2007	H14-00084	281059.3014	3845659.871		23.51932144	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Scrap Metal, Bolt
2085	H14	1/29/2007	H14-00085	281056.9436	3845669.577		22.87592697	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Scrap Metal
2086	H14	1/25/2007	H14-00086	281052.7029	3845662.728	F - Cultural, Other	22.43207932	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolts.
2087	H14	1/29/2007	H14-00087	281059.6791	3845657.872		22.343853	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Concrete, Wire
2088	H14	1/29/2007	H14-00088	281054.0127	3845653.522		22.06617737	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Concrete, Rein
2089	H14	1/29/2007	H14-00089	281066.6556	3845675.901		21.46768951	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nails

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
2090	H14	1/29/2007	H14-00090	281068.4528	3845663.624		20.87685585	Cultural Debris	Cultural, Other	3	2	Scrap Bin	8" Bolt, Nails, Toy Truck
2091	H14	1/25/2007	H14-00091	281051.6366	3845658.957	D - Scrap Metal	19.98607445	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2092	H14	1/29/2007	H14-00092	281066.4363	3845678.045		19.89509773	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Communication Cable (LIP, 12"), Pipe Fitting, Nail
2093	H14	1/25/2007	H14-00093	281044.7517	3845662.284	C - Nail	19.34556961	Cultural Debris	Nail	3	6	Scrap Bin	
2094	H14	1/29/2007	H14-00094	281071.213	3845671.599		19.12659454	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails
2095	H14	1/29/2007	H14-00095	281062.086	3845676.084		18.6151371	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolt, Nail
2096	H14	1/25/2007	H14-00096	281043.2589	3845655.478	C - Nail	18.2355442	Cultural Debris	Nail	4	6	Scrap Bin	
2097	H14	1/29/2007	H14-00097	281056.0087	3845664.239		16.07818013	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nails
2098	H14	1/29/2007	H14-00098	281070.7376	3845663.532		15.52081013	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails
2099	H14	1/25/2007	H14-00099	281049.3882	3845648.52	F - Cultural, Other	14.80644131	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Screws.
2100	H14	1/29/2007	H14-00100	281059.7371	3845678.416		14.64175705	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Wire, Nails
2101	H14	1/25/2007	H14-00101	281049.6382	3845662.393	C - Nail	14.33536243	Cultural Debris	Nail	5	6	Scrap Bin	
2102	H14	1/29/2007	H14-00102	281064.3037	3845670.503		14.10709763	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Screws, Nails, Scrap Metal
2103	H14	1/25/2007	H14-00103	281046.9574	3845671.654	F - Cultural, Other	14.06046009	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nut, Nail.
2104	H14	1/29/2007	H14-00104	281069.0133	3845654.753		13.97718239	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Bolts, Nails
2105	H14	1/29/2007	H14-00105	281057.9003	3845678.234		13.91476917	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Chain Link, Wire, Metal Rod, Nail
2106	H14	1/29/2007	H14-00106	281062.1315	3845673.89		13.47477454	Cultural Debris	Cultural, Other	6	4	Scrap Bin	Banding, Bolt, Nails, Scrap Metal
2107	H14	1/29/2007	H14-00107	281056.7301	3845652.803		13.39569283	Cultural Debris	Cultural, Other	4	12	Scrap Bin	Nails
2108	H14	1/25/2007	H14-00108	281047.9588	3845670.943	F - Cultural, Other	12.29020168	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Nails, Bolts.
2109	H14	1/29/2007	H14-00109	281062.1774	3845678.368		12.16973877	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nails
2110	H14	1/29/2007	H14-00110	281055.2374	3845653.626		11.02942085	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails
2111	H14	1/29/2007	H14-00111	281069.2143	3845652.151		10.6268425	Cultural Debris	Cultural, Other	3	10	Scrap Bin	Nail
2112	H14	1/29/2007	H14-00112	281060.1849	3845666.701		10.47234535	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Concrete, Wire, Scrap Metal
2113	H14	1/29/2007	H14-00113	281057.4673	3845648.349		10.30541039	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nails, Wire, Screws
2114	H14	1/29/2007	H14-00114	281059.8621	3845673.884		10.27912331	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Nails
2115	H14	1/29/2007	H14-00115	281059.8741	3845658.932		10.18157864	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Bolts, Nail
2116	H14	1/29/2007	H14-00116	281067.2403	3845660.011		10.16317272	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Scrap Metal
2117	H14	1/25/2007	H14-00117	281041.5023	3845674.11	I - Under Road	10.14254591	Other	Under Road	0	0	No Action Required	
2118	H14	1/25/2007	H14-00118	281047.7371	3845656.824	F - Cultural, Other	9.931727409	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nail, Wire.
2119	H14	1/29/2007	H14-00119	281071.1945	3845655.886		9.664803505	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nails
2120	H14	1/29/2007	H14-00120	281069.6289	3845677.765		9.606805801	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Nail
2121	H14	1/29/2007	H14-00121	281061.7506	3845652.45		9.48859024	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Nails
2122	H14	1/29/2007	H14-00122	281069.2816	3845676.711		9.324997902	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Nails
2123	H14	1/29/2007	H14-00123	281069.9213	3845673.634		9.251281738	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Scrap Metal
2124	H14	1/29/2007	H14-00124	281070.6695	3845665.947		9.24205243	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Wire, Magnet
2125	H14	1/25/2007	H14-00125	281053.958	3845663.593	F - Cultural, Other	9.14846611	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Chain link, Nails.
2126	H14	1/25/2007	H14-00126	281042.4183	3845676.413	I - Under Road	8.916970253	Other	Under Road	0	0	No Action Required	
2127	H14	1/29/2007	H14-00127	281064.4135	3845677.058		8.748550415	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Reinforced Concrete
2128	H14	1/29/2007	H14-00128	281061.0014	3845671.855		8.480031013	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Wire, Screws
2129	H14	1/25/2007	H14-00129	281041.3663	3845654.033	C - Nail	8.305459083	Cultural Debris	Nail	3	2	Scrap Bin	
2130	H14	1/29/2007	H14-00130	281062.3845	3845672.105		8.290229797	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Wire, Nails, Screws
2131	H14	1/25/2007	H14-00131	281050.735	3845674.554	F - Cultural, Other	8.163047791	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Pipe.
2132	H14	1/25/2007	H14-00132	281046.0739	3845668.638	F - Cultural, Other	8.106476784	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolt, Nail.
2133	H14	1/29/2007	H14-00133	281065.3088	3845653.68		7.967233181	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Pipe Collar, Nails
2134	H14	1/29/2007	H14-00134	281066.3811	3845649.976		7.952831268	Cultural Debris	Cultural, Other	1	4	Left in Place	Communication Cable
2135	H14	1/29/2007	H14-00135	281070.6887	3845650.871		7.838194847	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Screws
2136	H14	1/25/2007	H14-00136	281045.8117	3845650.646		7.635333061			6	6	Scrap Bin	Screws, Nails.
2137	H14	1/25/2007	H14-00137	281043.192	3845669.059	F - Cultural, Other	7.471110821	Cultural Debris	Cultural, Other	1	4	Scrap Bin	
2138	H14	1/29/2007	H14-00138	281056.8337	3845651.578		7.390629292	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire/Screw
2139	H14	1/29/2007	H14-00139	281067.7704	3845661.82		7.193403721	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Can, Wire
2140	H14	1/29/2007	H14-00140	281069.4216	3845661.144		7.024702549	Cultural Debris	Cultural, Other	1	6	Left in Place	Communication Cable
2141	H14	1/29/2007	H14-00141	281057.1995	3845672.16		6.33178997	Cultural Debris	Cultural, Other	7	6	Scrap Bin	Nails, Wire
2142	H14	1/25/2007	H14-00142	281042.93	3845662.509	C - Nail	6.229340553	Cultural Debris	Nail	3	6	Scrap Bin	
2143	H14	1/25/2007	H14-00143	281046.9695	3845660.517	C - Nail	6.223200798	Cultural Debris	Nail	5	6	Scrap Bin	
2144	H14	1/29/2007	H14-00144	281055.3409	3845652.401		6.178968906	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nail
2145	H14	1/29/2007	H14-00145	281068.9888	3845650.329		6.106298447	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Screws
2146	H14	1/25/2007	H14-00146	281042.7899	3845670.448	C - Nail	5.394043922	Cultural Debris	Nail	3	2	Scrap Bin	
2147	H14	1/25/2007	H14-00147	281050.2047	3845657.488	D - Scrap Metal	5.339186668	Cultural Debris	Scrap Metal	3	4	Scrap Bin	
2148	H14	1/29/2007	H14-00148	281070.0064	3845656.696		5.158302307	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nails
2149	H14	1/29/2007	H14-00149	281070.2683	3845651.804		5.152954102	Cultural Debris	Cultural, Other	6	12	Scrap Bin	Scrap Metal, Nails, Screws
2150	H14	1/29/2007	H14-00150	281062.6462	3845651.956		4.980585575	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Nails
2151	H14	1/29/2007	H14-00151	281058.5457	3845648.611		4.79050684	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nails, Screws
2152	H14	1/29/2007	H14-00152	281057.7418	3845674.274		4.768261909	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Nails, Screws
2153	H14	1/29/2007	H14-00153	281071.4558	3845659.983		4.759697732	Cultural Debris	Cultural, Other	4	4	Left in Place	Communication Cable, Screws (screw removed)
2154	H14	1/25/2007	H14-00154	281043.5455	3845677.893	I - Under Road	4.704187393	Other	Under Road	0	0	No Action Required	
2155	H14	1/25/2007	H14-00155	281051.5391	3845660.334	D - Scrap Metal	4.685765266	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
2156	H14	1/25/2007	H14-00156	281045.361	3845666.073	C - Nail	4.667429924	Cultural Debris	Nail	2	6	Scrap Bin	
2157	H14	1/29/2007	H14-00157	281055.4018	3845650.11		4.569131374	Cultural Debris	Cultural, Other	2	10	Scrap Bin	Nails
2158	H14	1/29/2007	H14-00158	281069.9394	3845658.835		4.415797234	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Screws, Nail
2159	H14	1/29/2007	H14-00159	281070.9691	3845657.878		4.287920475	Cultural Debris	Cultural, Other	3	2	Scrap Bin	Scrap Metal, Nail
2160	H14	1/25/2007	H14-00160	281044.3192	3845666.725	F - Cultural, Other	4.24501276	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Grounding clamp, Nails , Wire.
2161	H14	1/29/2007	H14-00161	281057.8572	3845650.469		3.949221134	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Magnet
2162	H14	1/25/2007	H14-00162	281041.3568	3845670.647	I - Under Road	3.725962714	Other	Under Road	0	0	No Action Required	
2163	H14	1/29/2007	H14-00163	281065.8145	3845651.066		3.548458815	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Screw
2164	H14	1/29/2007	H14-00164	281055.6577	3845648.879		3.507570744	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails
2165	H14	1/29/2007	H14-00165	281055.5849	3845673.75		3.48262167	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Nails, Wire, Scrap Metal
2166	H14	1/29/2007	H14-00166	281071.1509	3845652.667		3.32855387	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Scrap Metal
2167	H14	1/29/2007	H14-00167	281064.1511	3845651.438		3.044732571	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nails
2168	H14	1/29/2007	H14-00064	281063.6211	3845653.443		35.27641678	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Washer, Nails, Magnet
2169	H14	1/29/2007	H14-00065	281061.367	3845669.552		33.60190964	Cultural Debris	Cultural, Other	5	2	Scrap Bin	Coax Cable
2170	H14	1/29/2007	H14-00066	281071.7065	3845668.681		32.71327591	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Wire, Nail
2171	H14	1/25/2007	H14-00067	281046.031	3845648.502	F - Cultural, Other	31.86755371	Cultural Debris	Cultural, Other	3	10	Scrap Bin	Faucet, Nails, Cable.
2172	H14	1/25/2007	H14-00068	281044.4472	3845673.738	I - Under Road	31.81248283	Other	Under Road	0	0	No Action Required	
2173	H14	1/29/2007	H14-00069	281057.2419	3845654.156		31.6417141	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Bolts, Cable (LIP)
2174	H14	1/29/2007	H14-00070	281067.5394	3845669.263		30.49821	Cultural Debris	Cultural, Other	4	2	Scrap Bin	Screws, Nails
2175	H14	1/25/2007	H14-00071	281049.7538	3845653.845	F - Cultural, Other	30.42057419	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinfored Concrete.
2176	H14	1/25/2007	H14-00072	281045.5863	3845652.639	C - Nail	30.32877731	Cultural Debris	Nail	5	6	Scrap Bin	
2177	H14	1/29/2007	H14-00073	281060.5449	3845662.91		28.85940847	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Nail, Screws
2178	H14	1/25/2007	H14-00074	281042.3085	3845666.043	F - Cultural, Other	28.69339371	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Meral Spike.
2179	H14	1/29/2007	H14-00075	281054.342	3845677.004		28.63034439	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Cable Communication

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Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
2180	H14	1/25/2007	H14-00076	281049.1874	3845670.192	F - Cultural, Other	28.23764992	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Latch hook, Magnet.
2181	H14	1/29/2007	H14-00077	281056.8035	3845677.516		27.52823257	Cultural Debris	Cultural, Other	1	4	Scrap Bin	12" Metal Rod
2182	H14	1/25/2007	H14-00078	281047.0365	3845662.192	F - Cultural, Other	27.11781693	Cultural Debris	Cultural, Other	7	12	Scrap Bin	Nails, Scrap metal.
2183	R18		R18-00001	281190.8161	3845972.071		1201.552364			0	0		
2184	R18		R18-00002	281178.5582	3845971.469		1039.701598			0	0		
2185	R18		R18-00003	281181.8506	3845958.265		865.7399902			0	0		
2186	R18		R18-00004	281177.712	3845959.421		801.7578167			0	0		
2187	R18		R18-00005	281198.88	3845953.007		782.2105103			0	0		
2188	R18		R18-00006	281183.9407	3845972.37		739.2536621			0	0		
2189	R18		R18-00007	281183.2278	3845969.805		683.5888672			0	0		
2190	R18		R18-00008	281192.0014	3845967.928		637.2233887			0	0		
2191	R18		R18-00009	281194.0312	3845977.316		610.7494698			0	0		
2192	R18		R18-00010	281200.2023	3845963.176		524.0598145			0	0		
2193	R18		R18-00011	281203.2637	3845950.87		512.9751921			0	0		
2194	R18		R18-00012	281200.5129	3845951.874		508.9725647			0	0		
2195	R18		R18-00013	281195.584	3845965.954		507.1938477			0	0		
2196	R18		R18-00014	281204.9792	3845960.364		379.9194209			0	0		
2197	R18		R18-00015	281179.8372	3845959.427		377.744955			0	0		
2198	R18		R18-00016	281205.555	3845966.412		331.4374827			0	0		
2199	R18		R18-00017	281175.7891	3845951.575		267.2194399			0	0		
2200	R18		R18-00018	281175.588	3845970.829		185.1675034			0	0		
2201	R18		R18-00019	281175.5446	3845960.806		176.1238403			0	0		
2202	R18		R18-00020	281182.4907	3845978.073		144.9164124			0	0		
2203	R18	1/23/2007	R18-00021	281192.6288	3845953.104	F - Cultural, Other	144.4481812	Cultural Debris	Cultural, Other	15	24	Scrap Bin	Bolts.
2204	R18		R18-00022	281184.5653	3845963.791		142.5335737			0	0		
2205	R18		R18-00023	281181.5827	3845970.634		137.8611755			0	0		
2206	R18		R18-00024	281182.2224	3845963.743		130.0135498			0	0		
2207	R18		R18-00025	281186.6821	3845949.376		117.0147552			0	0		
2208	R18		R18-00026	281177.4518	3845974.155		114.4081955			0	0		
2209	R18		R18-00027	281182.132	3845961.399		110.0862314			0	0		
2210	R18		R18-00028	281175.8391	3845977.103		107.9395724			0	0		
2211	R18		R18-00029	281180.3642	3845974.496		102.8839645			0	0		
2212	R18		R18-00030	281187.377	3845970.554		98.82299805			0	0		
2213	R18	1/23/2007	R18-00031	281177.1958	3845967.758	E - Wire	92.83402252	Cultural Debris	Wire	1	6	Scrap Bin	
2214	R18		R18-00032	281177.547	3845949.228		88.45620422			0	0		
2215	R18		R18-00033	281177.3301	3845978.737		85.42393494			0	0		
2216	R18		R18-00034	281184.5803	3845961.665		79.93106079			0	0		
2217	R18		R18-00035	281181.6886	3845976.11		69.88398078			0	0		
2218	R18		R18-00036	281186.6336	3845963.414		68.57263947			0	0		
2219	R18	1/23/2007	R18-00037	281195.7848	3845948.096	D - Scrap Metal	67.38111115	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
2220	R18		R18-00038	281181.4667	3845956.297		63.55042648			0	0		
2221	R18		R18-00039	281184.379	3845949.01		61.58872223			0	0		
2222	R18		R18-00040	281185.2965	3845977.513		61.08033242			0	0		
2223	R18		R18-00041	281187.8662	3845978.434		60.05723393			0	0		
2224	R18	1/23/2007	R18-00042	281193.1589	3845954.914	I - Under Road	53.47706223	Other	Under Road	0	0	No Action Required	
2225	R18		R18-00043	281182.7401	3845949.991		51.06075287			0	0		
2226	R18	1/23/2007	R18-00044	281174.6854	3845954.585	F - Cultural, Other	43.2466011	Cultural Debris	Cultural, Other	12	12	Scrap Bin	Bolts , Nails , Tent stake.
2227	R18		R18-00045	281186.7311	3845965.851		42.91410446			0	0		
2228	R18	1/23/2007	R18-00046	281185.2504	3845959.35		38.70780945			3	12	Scrap Bin	Bolts.
2229	R18		R18-00047	281186.0671	3845975.947		38.60807419			0	0		
2230	R18	1/23/2007	R18-00048	281184.4763	3845951.481	I - Under Road	37.17446699	Other	Under Road	0	0	No Action Required	
2231	R18	1/23/2007	R18-00049	281185.6466	3845955.157	F - Cultural, Other	36.31390294	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Bolt.
2232	R18		R18-00050	281187.4013	3845967.35		35.07856369			0	0		
2233	R18		R18-00051	281187.5538	3845974.972		33.99734497			0	0		
2234	R18	1/23/2007	R18-00052	281197.308	3845948.035	D - Scrap Metal	33.11067581	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
2235	R18		R18-00053	281175.3131	3845966.46		32.75533295			0	0		
2236	R18	1/23/2007	R18-00054	281190.9676	3845954.742	I - Under Road	30.28727035	Other	Under Road	0	0	No Action Required	
2237	R18	1/23/2007	R18-00055	281189.2229	3845955.682	I - Under Road	29.65361214	Other	Under Road	0	0	No Action Required	
2238	R18	1/23/2007	R18-00056	281186.9808	3845956.839	I - Under Road	29.22979736	Other	Under Road	0	0	No Action Required	
2239	R18	1/23/2007	R18-00057	281185.8581	3845954.075	I - Under Road	28.68918611	Other	Under Road	0	0	No Action Required	
2240	R18	1/23/2007	R18-00058	281178.5056	3845954.737	C - Nail	28.61241531	Cultural Debris	Nail	1	6	Scrap Bin	
2241	R18	1/23/2007	R18-00059	281198.4169	3845949.059	F - Cultural, Other	24.70220566	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Nut, Rebar.
2242	R18	1/23/2007	R18-00060	281176.7143	3845955.725	H - No Contact	24.101408	No Contact	N/A	0	0	No Action Required	
2243	R18	1/23/2007	R18-00061	281204.3516	3845971.553	F - Cultural, Other	23.2805481	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Metal ring.
2244	R18	1/23/2007	R18-00062	281200.7322	3845949.729	F - Cultural, Other	21.88363647	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Bolt.
2245	R18	1/23/2007	R18-00063	281177.4512	3845962.771	D - Scrap Metal	21.31153753	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
2246	R18	1/23/2007	R18-00064	281204.4043	3845947.516	F - Cultural, Other	20.60681028	Cultural Debris	Cultural, Other	2	4	Scrap Bin	AA Batt. Bolt.
2247	R18	1/23/2007	R18-00065	281202.8711	3845972.68	I - Under Road	20.33290863	Other	Under Road	0	0	No Action Required	
2248	R18	1/23/2007	R18-00066	281191.0995	3845956.827	I - Under Road	19.05029106	Other	Under Road	0	0	No Action Required	
2249	R18	1/23/2007	R18-00067	281181.0769	3845965.619	F - Cultural, Other	18.91165733	Cultural Debris	Cultural, Other	2	18	Scrap Bin	Concrete, Wire.
2250	R18	1/23/2007	R18-00068	281188.8086	3845952.952	I - Under Road	18.07453728	Other	Under Road	0	0	No Action Required	
2251	R18	1/23/2007	R18-00069	281187.9132	3845948.085	I - Under Road	17.4527699	Other	Under Road	0	0	No Action Required	
2252	R18	1/23/2007	R18-00070	281194.707	3845952.488		16.7905403			3	12	Scrap Bin	Bolts.
2253	R18	1/23/2007	R18-00071	281178.107	3845957.159	E - Wire	15.35555044	Cultural Debris	Wire	2	6	Scrap Bin	Confrete, Wire.
2254	R18	1/23/2007	R18-00072	281199.7939	3845947.609	F - Cultural, Other	15.27030354	Cultural Debris	Cultural, Other	2	6	Scrap Bin	
2255	R18	1/23/2007	R18-00073	281187.9921	3845951.612	I - Under Road	15.21253204	Other	Under Road	0	0	No Action Required	
2256	R18	1/23/2007	R18-00074	281197.0629	3845975.707	F - Cultural, Other	15.19947517	Cultural Debris	Cultural, Other	3	6	Scrap Bin	zBanding, Nails .
2257	R18	1/23/2007	R18-00075	281175.3861	3845956.846	D - Scrap Metal	15.03053856	Cultural Debris	Scrap Metal	3	12	Scrap Bin	
2258	R18		R18-00076	281190.9057	3845978.109		14.94096241			0	0		
2259	R18	1/23/2007	R18-00077	281191.3356	3845947.887	C - Nail	14.18342509	Cultural Debris	Nail	2	4	Scrap Bin	
2260	R18	1/23/2007	R18-00078	281179.9496	3845956.51	C - Nail	13.89207745	Cultural Debris	Nail	1	4	Scrap Bin	
2261	R18	1/23/2007	R18-00079	281190.0335	3845947.969	C - Nail	13.839074	Cultural Debris	Nail	1	6	Scrap Bin	
2262	R18	1/23/2007	R18-00080	281197.4396	3845950.982	F - Cultural, Other	13.10659473	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolt, Wire.
2263	R18	1/23/2007	R18-00081	281181.6093	3845948.337	F - Cultural, Other	12.90714107	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Screw.
2264	R18	1/23/2007	R18-00082	281204.7368	3845956.579	F - Cultural, Other	12.56578325	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Metal ring, Wire.
2265	R18	1/23/2007	R18-00083	281194.5606	3845954.892	D - Scrap Metal	12.48890046	Cultural Debris	Scrap Metal	7	12	Scrap Bin	
2266	R18	1/23/2007	R18-00084	281202.7005	3845976.044	I - Under Road	12.16548347	Other	Under Road	0	0	No Action Required	
2267	R18	1/23/2007	R18-00085	281204.4238	3845954.072	F - Cultural, Other	11.7253108	Cultural Debris	Cultural, Other	1	2	Scrap Bin	Nut.
2268	R18	1/23/2007	R18-00086	281201.7135	3845974.252	I - Under Road	11.66888523	Other	Under Road	0	0	No Action Required	
2269	R18	1/23/2007	R18-00087	281189.8991	3845949.705	I - Under Road	11.21835995	Other	Under Road	0	0	No Action Required	
2270	R18	1/23/2007	R18-00088	281203.7017	3845976.989	I - Under Road	11.17997501	Other	Under Road	0	0	No Action Required	
2271	R18	1/25/2007	R18-00089	281195.2548	3845953.915	D - Scrap Metal	10.87792969	Cultural Debris	Scrap Metal	4	18	Scrap Bin	Scrap metal, Nails.
2272	R18	1/23/2007	R18-00090	281191.4467	3845950.253	C - Nail	10.79488182	Cultural Debris	Nail	1	6	Scrap Bin	
2273	R18	1/23/2007	R18-00091	281192.318	3845949.15	D - Scrap Metal	9.778801918	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
2274	R18	1/23/2007	R18-00092	281198.7462	3845968.726	I - Under Road	9.322360039	Other	Under Road	0	0	No Action Required	
2275	R18	1/23/2007	R18-00093	281199.1826	3845977.955	I - Under Road	9.138916455	Other	Under Road	0	0	No Action Required	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
2276	R18	1/23/2007	R18-00094	281198.1758	3845959.513	H - No Contact	8.911907524	No Contact	N/A	0	0	No Action Required	
2277	R18	1/23/2007	R18-00095	281206.1186	3845977.585	E - Wire	8.801052094	Cultural Debris	Wire	1	1	Scrap Bin	
2278	R18	1/23/2007	R18-00096	281203.6386	3845975.413	I - Under Road	7.716745091	Other	Under Road	0	0	No Action Required	
2279	R18	1/23/2007	R18-00097	281200.8892	3845972.7	I - Under Road	7.707019627	Other	Under Road	0	0	No Action Required	
2280	R18	1/23/2007	R18-00098	281193.5182	3845948.644	F - Cultural, Other	7.336949348	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Rod, Nail.
2281	R18	1/23/2007	R18-00099	281199.9283	3845975.392	I - Under Road	7.300358772	Other	Under Road	0	0	No Action Required	
2282	R18	1/23/2007	R18-00100	281192.7565	3845956.846	I - Under Road	7.008625347	Other	Under Road	0	0	No Action Required	
2283	R18	1/23/2007	R18-00101	281198.5147	3845970.566	I - Under Road	7.001273632	Other	Under Road	0	0	No Action Required	
2284	R18	1/23/2007	R18-00102	281189.162	3845957.973	I - Under Road	6.901511192	Other	Under Road	0	0	No Action Required	
2285	R18	1/23/2007	R18-00103	281201.8212	3845970.204	I - Under Road	6.34828586	Other	Under Road	0	0	No Action Required	
2286	R18	1/23/2007	R18-00104	281188.6562	3845949.144	I - Under Road	6.251409531	Other	Under Road	0	0	No Action Required	
2287	R18	1/23/2007	R18-00105	281204.9912	3845951.56	F - Cultural, Other	6.212416189	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete, Nail.
2288	R18	1/23/2007	R18-00106	281190.2594	3845958.16	I - Under Road	6.176694431	Other	Under Road	0	0	No Action Required	
2289	R18	1/23/2007	R18-00107	281196.5708	3845952.489	F - Cultural, Other	5.893939018	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolts.
2290	R18	1/23/2007	R18-00108	281196.6562	3845958.436	D - Scrap Metal	5.710000515	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
2291	R18	1/23/2007	R18-00109	281194.3836	3845962.646	I - Under Road	5.600167274	Other	Under Road	0	0	No Action Required	
2292	R18	1/23/2007	R18-00110	281204.8387	3845949.412	F - Cultural, Other	5.425450325	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete, Bolt.
2293	R18	1/23/2007	R18-00111	281197.2775	3845968.929	I - Under Road	5.280678296	Other	Under Road	0	0	No Action Required	
2294	R18	1/23/2007	R18-00112	281194.9441	3845957.589	I - Under Road	5.175620556	Other	Under Road	0	0	No Action Required	
2295	R18	1/23/2007	R18-00113	281199.7515	3845970.975	I - Under Road	5.15395546	Other	Under Road	0	0	No Action Required	
2296	R18	1/23/2007	R18-00114	281200.1778	3845954.938	F - Cultural, Other	5.115557194	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Reinforced concrete, Wire.
2297	R18	1/23/2007	R18-00115	281200.5862	3845968.958	I - Under Road	4.72961092	Other	Under Road	0	0	No Action Required	
2298	R18	1/23/2007	R18-00116	281192.2816	3845963.493	I - Under Road	4.657277107	Other	Under Road	0	0	No Action Required	
2299	R18	1/23/2007	R18-00117	281202.7858	3845974.362	I - Under Road	4.299044132	Other	Under Road	0	0	No Action Required	
2300	R18	1/23/2007	R18-00118	281200.373	3845967.441	I - Under Road	4.149492741	Other	Under Road	0	0	No Action Required	
2301	R18	1/23/2007	R18-00119	281177.8599	3845965.29	F - Cultural, Other	4.09087801	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Concrete, Wire.
2302	R18	1/23/2007	R18-00120	281178.8287	3845966.625	F - Cultural, Other	4.04933691	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Metal tube. Wire.
2303	R18	1/23/2007	R18-00121	281203.0416	3845969.317	F - Cultural, Other	4.020171642	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Nail.
2304	R18	1/23/2007	R18-00122	281199.1057	3845973.899	I - Under Road	3.700927734	Other	Under Road	0	0	No Action Required	
2305	R18	1/23/2007	R18-00123	281197.1987	3845971.992	I - Under Road	3.650104761	Other	Under Road	0	0	No Action Required	
2306	R18	1/23/2007	R18-00124	281196.6564	3845973.692	I - Under Road	3.539726257	Other	Under Road	0	0	No Action Required	
2307	R18	1/23/2007	R18-00125	281190.3014	3845959.758	I - Under Road	3.459068775	Other	Under Road	0	0	No Action Required	
2308	R18	1/23/2007	R18-00126	281196.8209	3845970.176	I - Under Road	3.413607836	Other	Under Road	0	0	No Action Required	
2309	R18	1/23/2007	R18-00127	281192.4217	3845959.368	I - Under Road	3.39088273	Other	Under Road	0	0	No Action Required	
2310	R18	1/23/2007	R18-00128	281193.7743	3845958.856	I - Under Road	3.329918385	Other	Under Road	0	0	No Action Required	
2311	R18	1/23/2007	R18-00129	281201.4475	3845977.855	I - Under Road	3.190406954	Other	Under Road	0	0	No Action Required	
2312	R18	1/23/2007	R18-00130	281191.1179	3845961.098	I - Under Road	3.063708305	Other	Under Road	0	0	No Action Required	
2313	Y16		Y16-00001	281147.3566	3846186.662		176.4486237			0	0		
2314	Y16	1/18/2007	Y16-00002	281136.5178	3846163.664	D - Scrap Metal	134.9654985	Cultural Debris	Scrap Metal	1	6	Scrap Bin	3 x 10 inch.
2315	Y16	1/18/2007	Y16-00003	281136.481	3846167.71	D - Scrap Metal	101.5624645	Cultural Debris	Scrap Metal	2	4	Scrap Bin	4 x 6
2316	Y16	1/18/2007	Y16-00004	281127.498	3846185.421	F - Cultural, Other	88.0729786	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Railroad spike.
2317	Y16	1/18/2007	Y16-00005	281129.4906	3846190.601	I - Under Road	68.42000881	Other	Under Road	0	0	No Action Required	
2318	Y16	1/18/2007	Y16-00006	281133.1969	3846191.195	F - Cultural, Other	41.89176178	Cultural Debris	Cultural, Other	2	4	Scrap Bin	Mechanical pencil, Nail.
2319	Y16	1/18/2007	Y16-00007	281130.9182	3846191.439	F - Cultural, Other	36.61559677	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Bolts, Nail.
2320	Y16		Y16-00008	281145.547	3846183.377		35.07748413			0	0		
2321	Y16		Y16-00009	281145.8942	3846180.617		34.51725388			0	0		
2322	Y16	1/18/2007	Y16-00010	281126.0038	3846194.504	F - Cultural, Other	31.62237116	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Groundiing rod.
2323	Y16		Y16-00011	281147.4358	3846188.642		30.25976753			0	0		
2324	Y16	1/18/2007	Y16-00012	281131.2317	3846193.112	F - Cultural, Other	29.20922046	Cultural Debris	Cultural, Other	4	4	Scrap Bin	Wire, Bolt, Scrap metal.
2325	Y16	1/18/2007	Y16-00013	281144.1478	3846171.631	F - Cultural, Other	28.40937021	Cultural Debris	Cultural, Other	5	6	Scrap Bin	Bolt, Wire, Nails.
2326	Y16	1/18/2007	Y16-00014	281151.7979	3846164.209	I - Under Road	23.85762787	Other	Under Road	0	0	No Action Required	
2327	Y16	1/18/2007	Y16-00015	281148.2948	3846183.42	C - Nail	22.61763763	Cultural Debris	Nail	5	4	Scrap Bin	
2328	Y16	1/18/2007	Y16-00016	281128.1703	3846187.582	I - Under Road	21.46412468	Other	Under Road	0	0	No Action Required	
2329	Y16	1/18/2007	Y16-00017	281130.8143	3846169.779	D - Scrap Metal	21.38663101	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
2330	Y16	1/18/2007	Y16-00018	281128.2859	3846179.034	E - Wire	21.06177902	Cultural Debris	Wire	1	6	Scrap Bin	
2331	Y16	1/18/2007	Y16-00019	281137.7239	3846193.76	F - Cultural, Other	20.60882759	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bucket handle.
2332	Y16	1/18/2007	Y16-00020	281129.5347	3846164.49	F - Cultural, Other	20.2044239	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Bolt
2333	Y16		Y16-00021	281145.7846	3846181.69		20.19457817			0	0		
2334	Y16	1/18/2007	Y16-00022	281152.4072	3846167.999	I - Under Road	18.23385811	Other	Under Road	0	0	No Action Required	
2335	Y16	1/18/2007	Y16-00023	281135.561	3846193.084	C - Nail	18.11747932	Cultural Debris	Nail	1	4	Scrap Bin	
2336	Y16	1/18/2007	Y16-00024	281140.9588	3846164.033	H - No Contact	17.41555214	No Contact	N/A	0	0	No Action Required	
2337	Y16	1/18/2007	Y16-00025	281137.4738	3846172.258	F - Cultural, Other	17.17847061	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Railroad spike.
2338	Y16	1/18/2007	Y16-00026	281126.662	3846172.322	F - Cultural, Other	16.99105083	Cultural Debris	Cultural, Other	1	6	Scrap Bin	8 inch Bolt.
2339	Y16	1/18/2007	Y16-00027	281151.2866	3846193.37	I - Under Road	16.71924019	Other	Under Road	0	0	No Action Required	
2340	Y16	1/18/2007	Y16-00028	281124.9773	3846164.977	D - Scrap Metal	16.69417191	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2341	Y16	1/18/2007	Y16-00029	281140.184	3846170.245	D - Scrap Metal	16.00790086	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
2342	Y16	1/18/2007	Y16-00030	281129.4495	3846169.986	F - Cultural, Other	15.79412842	Cultural Debris	Cultural, Other	1	6	Scrap Bin	10 inch bolt.
2343	Y16	1/18/2007	Y16-00031	281147.2685	3846174.859	F - Cultural, Other	15.53356793	Cultural Debris	Cultural, Other	4	6	Scrap Bin	Bolts.
2344	Y16	1/18/2007	Y16-00032	281126.4093	3846177.888	D - Scrap Metal	15.23885918	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
2345	Y16	1/18/2007	Y16-00033	281139.63	3846181.124	F - Cultural, Other	15.19595737	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Asphalt.
2346	Y16	1/18/2007	Y16-00034	281146.8001	3846170.994	I - Under Road	15.1853062	Other	Under Road	0	0	No Action Required	
2347	Y16	1/18/2007	Y16-00035	281131.9965	3846180.258	C - Nail	14.70073986	Cultural Debris	Nail	2	10	Scrap Bin	
2348	Y16	1/18/2007	Y16-00036	281143.3212	3846176.899	F - Cultural, Other	14.45221203	Cultural Debris	Cultural, Other	2	12	Scrap Bin	6 inches long chain, Wire.
2349	Y16	1/18/2007	Y16-00037	281148.045	3846180.401	I - Under Road	13.96002562	Other	Under Road	0	0	No Action Required	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
2350	Y16	1/18/2007	Y16-00038	281127.4331	3846188.222	I - Under Road	13.76621342	Other	Under Road	0	0	No Action Required	
2351	Y16	1/18/2007	Y16-00039	281152.4683	3846177.151	I - Under Road	13.74897671	Other	Under Road	0	0	No Action Required	
2352	Y16		Y16-00040	281148.0452	3846192.431		13.63188171			0	0		
2353	Y16	1/18/2007	Y16-00041	281143.6245	3846166.995	C - Nail	13.48879483	Cultural Debris	Nail	4	6	Scrap Bin	
2354	Y16	1/18/2007	Y16-00042	281152.5171	3846182.183	I - Under Road	13.12219429	Other	Under Road	0	0	No Action Required	
2355	Y16	1/18/2007	Y16-00043	281153.1753	3846191.006	I - Under Road	12.79646778	Other	Under Road	0	0	No Action Required	
2356	Y16	1/18/2007	Y16-00044	281129.7362	3846188.587	F - Cultural, Other	12.76430702	Cultural Debris	Cultural, Other	3	6	Scrap Bin	8 inch lid, Nails, Wire.
2357	Y16	1/18/2007	Y16-00045	281137.7967	3846168.889	D - Scrap Metal	12.10112953	Cultural Debris	Scrap Metal	1	4	Scrap Bin	1 x 4
2358	Y16	1/18/2007	Y16-00046	281129.9798	3846187.052	F - Cultural, Other	11.90653515	Cultural Debris	Cultural, Other	2	12	Scrap Bin	10 inch rod, Nail.
2359	Y16	1/18/2007	Y16-00047	281150.1776	3846188.532	I - Under Road	11.55021954	Other	Under Road	0	0	No Action Required	
2360	Y16	1/18/2007	Y16-00048	281135.189	3846176.164	C - Nail	11.22348213	Cultural Debris	Nail	1	6	Scrap Bin	
2361	Y16	1/18/2007	Y16-00049	281145.0292	3846193.315	C - Nail	10.7181282	Cultural Debris	Nail	1	4	Scrap Bin	6 inch
2362	Y16	1/18/2007	Y16-00050	281129.4538	3846181.485	C - Nail	10.54528251	Cultural Debris	Nail	1	6	Scrap Bin	
2363	Y16	1/18/2007	Y16-00051	281146.4546	3846167.932	C - Nail	10.1687479	Cultural Debris	Nail	5	6	Scrap Bin	
2364	Y16	1/18/2007	Y16-00052	281152.2123	3846170.753	I - Under Road	10.12706852	Other	Under Road	0	0	No Action Required	
2365	Y16	1/18/2007	Y16-00053	281138.3511	3846167.494	F - Cultural, Other	10.08247375	Cultural Debris	Cultural, Other	3	4	Scrap Bin	Hanger, Nail, Staple.
2366	Y16	1/18/2007	Y16-00054	281135.5809	3846168.754	D - Scrap Metal	9.811087346	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2367	Y16	1/18/2007	Y16-00055	281144.9256	3846186.911	B - Car Part	9.653823853	Cultural Debris	Car Part	2	6	Scrap Bin	
2368	Y16	1/18/2007	Y16-00056	281145.8759	3846176.346	F - Cultural, Other	9.38493824	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Chain link, Nail.
2369	Y16	1/18/2007	Y16-00057	281142.3395	3846180.702	F - Cultural, Other	9.262587943	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Bolt, Wire.
2370	Y16	1/18/2007	Y16-00058	281138.7045	3846172.514	C - Nail	9.234417915	Cultural Debris	Nail	2	2	Scrap Bin	
2371	Y16	1/18/2007	Y16-00059	281144.1333	3846174.738	F - Cultural, Other	9.132065773	Cultural Debris	Cultural, Other	6	6	Scrap Bin	Pieces of concrete, Nail.
2372	Y16	1/18/2007	Y16-00060	281146.3387	3846165.038	I - Under Road	9.065163612	Other	Under Road	0	0	No Action Required	
2373	Y16	1/18/2007	Y16-00061	281135.3781	3846184.7	C - Nail	8.866797447	Cultural Debris	Nail	1	6	Scrap Bin	
2374	Y16	1/18/2007	Y16-00062	281151.0428	3846191.091	I - Under Road	8.633955002	Other	Under Road	0	0	No Action Required	
2375	Y16	1/18/2007	Y16-00063	281126.6112	3846180.088	E - Wire	8.523208807	Cultural Debris	Wire	1	6	Scrap Bin	
2376	Y16	1/18/2007	Y16-00064	281123.8445	3846193.858	I - Under Road	8.429947853	Other	Under Road	0	0	No Action Required	
2377	Y16	1/18/2007	Y16-00065	281132.4716	3846173.069	C - Nail	8.395505905	Cultural Debris	Nail	3	12	Scrap Bin	
2378	Y16	1/18/2007	Y16-00066	281144.3464	3846168.627	F - Cultural, Other	8.290987968	Cultural Debris	Cultural, Other	3	6	Scrap Bin	Nut, Bolt, Screw.
2379	Y16	1/18/2007	Y16-00067	281123.0216	3846173.294	F - Cultural, Other	8.174326897	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Screws
2380	Y16	1/18/2007	Y16-00068	281150.4152	3846186.844	I - Under Road	8.053853035	Other	Under Road	0	0	No Action Required	
2381	Y16	1/18/2007	Y16-00069	281134.1288	3846168.731	F - Cultural, Other	8.035708427	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Screwdriver
2382	Y16	1/18/2007	Y16-00070	281136.7734	3846189.068	C - Nail	8.009200096	Cultural Debris	Nail	1	6	Scrap Bin	6 inch.
2383	Y16	1/18/2007	Y16-00071	281147.0518	3846179.045	C - Nail	7.983762741	Cultural Debris	Nail	6	4	Scrap Bin	
2384	Y16	1/18/2007	Y16-00072	281125.3071	3846177.269	B - Car Part	7.934232423	Cultural Debris	Car Part	1	6	Scrap Bin	
2385	Y16	1/18/2007	Y16-00073	281152.2611	3846175.786	I - Under Road	7.811896324	Other	Under Road	0	0	No Action Required	
2386	Y16	1/18/2007	Y16-00074	281136.81	3846190.235	F - Cultural, Other	7.588117305	Cultural Debris	Cultural, Other	1	4	Scrap Bin	File
2387	Y16	1/18/2007	Y16-00075	281148.1607	3846176.255	I - Under Road	7.567243576	Other	Under Road	0	0	No Action Required	
2388	Y16	1/18/2007	Y16-00076	281152.2041	3846166.17	C - Nail	7.539557198	Cultural Debris	Nail	1	1	Scrap Bin	
2389	Y16	1/18/2007	Y16-00077	281152.8519	3846184.165	I - Under Road	7.478462274	Other	Under Road	0	0	No Action Required	
2390	Y16	1/18/2007	Y16-00078	281131.4601	3846166.854	E - Wire	7.465908051	Cultural Debris	Wire	1	6	Scrap Bin	
2391	Y16	1/18/2007	Y16-00079	281145.8172	3846163.313	C - Nail	7.379087959	Cultural Debris	Nail	6	6	Scrap Bin	
2392	Y16	1/18/2007	Y16-00080	281152.6264	3846173.704	I - Under Road	7.321305738	Other	Under Road	0	0	No Action Required	
2393	Y16	1/18/2007	Y16-00081	281123.4788	3846188.532	I - Under Road	7.321061611	Other	Under Road	0	0	No Action Required	
2394	Y16	1/18/2007	Y16-00082	281152.9676	3846188.865	I - Under Road	7.275189526	Other	Under Road	0	0	No Action Required	
2395	Y16	1/18/2007	Y16-00083	281152.2916	3846172.733	I - Under Road	7.218123436	Other	Under Road	0	0	No Action Required	
2396	Y16	1/18/2007	Y16-00084	281135.5424	3846173.556	E - Wire	7.212288857	Cultural Debris	Wire	2	6	Scrap Bin	
2397	Y16	1/18/2007	Y16-00085	281131.0093	3846174.653	E - Wire	7.201590538	Cultural Debris	Wire	1	12	Scrap Bin	
2398	Y16	1/18/2007	Y16-00086	281126.0376	3846176.225	E - Wire	7.045798779	Cultural Debris	Wire	2	6	Scrap Bin	
2399	Y16	1/18/2007	Y16-00087	281134.9243	3846166.62	D - Scrap Metal	6.981553192	Cultural Debris	Scrap Metal	2	12	Scrap Bin	
2400	Y16	1/18/2007	Y16-00088	281132.8312	3846178.241	F - Cultural, Other	6.969534874	Cultural Debris	Cultural, Other	3	12	Scrap Bin	Screws
2401	Y16	1/18/2007	Y16-00089	281135.5545	3846170.047	D - Scrap Metal	6.870368004	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2402	Y16	1/18/2007	Y16-00090	281138.3332	3846189.921	F - Cultural, Other	6.756144524	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Metal rod.
2403	Y16	1/18/2007	Y16-00091	281125.5809	3846191.5	I - Under Road	6.742981911	Other	Under Road	0	0	No Action Required	
2404	Y16	1/18/2007	Y16-00092	281145.1995	3846170.881	C - Nail	6.690194607	Cultural Debris	Nail	5	4	Scrap Bin	
2405	Y16	1/18/2007	Y16-00093	281132.5144	3846181.763	E - Wire	6.620261669	Cultural Debris	Wire	1	6	Scrap Bin	
2406	Y16	1/18/2007	Y16-00094	281140.4958	3846167.713	F - Cultural, Other	6.565313816	Cultural Debris	Cultural, Other	1	6	Scrap Bin	Large staple.
2407	Y16	1/18/2007	Y16-00095	281142.1287	3846174.208	E - Wire	6.390231609	Cultural Debris	Wire	3	12	Scrap Bin	
2408	Y16	1/18/2007	Y16-00096	281140.904	3846166.476	C - Nail	6.181136131	Cultural Debris	Nail	3	4	Scrap Bin	
2409	Y16	1/18/2007	Y16-00097	281136.4079	3846191.371	E - Wire	6.139734745	Cultural Debris	Wire	1	6	Scrap Bin	
2410	Y16	1/18/2007	Y16-00098	281151.5789	3846185.425	I - Under Road	6.117349148	Other	Under Road	0	0	No Action Required	
2411	Y16	1/18/2007	Y16-00099	281129.9589	3846193.863	I - Under Road	6.112378724	Other	Under Road	0	0	No Action Required	
2412	Y16	1/18/2007	Y16-00100	281133.672	3846180.191	F - Cultural, Other	6.079386234	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Bolts
2413	Y16	1/18/2007	Y16-00101	281144.8523	3846177.455	D - Scrap Metal	6.076825142	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2414	Y16	1/18/2007	Y16-00102	281145.0591	3846164.863	F - Cultural, Other	5.987296098	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Lugnut
2415	Y16	1/19/2007	Y16-00103	281152.4562	3846180.66	I - Under Road	5.956107616	Other	Under Road	0	0	No Action Required	
2416	Y16	1/18/2007	Y16-00104	281125.1867	3846174.785	E - Wire	5.912792427	Cultural Debris	Wire	1	6	Scrap Bin	8 inch.
2417	Y16	1/18/2007	Y16-00105	281152.4319	3846187.679	I - Under Road	5.835101604	Other	Under Road	0	0	No Action Required	
2418	Y16	1/18/2007	Y16-00106	281145.6443	3846174.372	C - Nail	5.818017483	Cultural Debris	Nail	1	4	Scrap Bin	
2419	Y16	1/18/2007	Y16-00107	281124.7888	3846186.954	I - Under Road	5.814343929	Other	Under Road	0	0	No Action Required	
2420	Y16	1/18/2007	Y16-00108	281148.3041	3846177.833	I - Under Road	5.651789451	Other	Under Road	0	0	No Action Required	
2421	Y16	1/18/2007	Y16-00109	281141.7756	3846171.436	F - Cultural, Other	5.609344801	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Bolt
2422	Y16	1/18/2007	Y16-00110	281144.225	3846192.279	C - Nail	5.60127449	Cultural Debris	Nail	6	6	Scrap Bin	
2423	Y16	1/18/2007	Y16-00111	281134.0252	3846169.955	C - Nail	5.588439465	Cultural Debris	Nail	1	6	Scrap Bin	
2424	Y16	1/18/2007	Y16-00112	281153.247	3846186.803	I - Under Road	5.564856103	Other	Under Road	0	0	No Action Required	
2425	Y16	1/18/2007	Y16-00113	281141.3113	3846184.555	F - Cultural, Other	5.526404651	Cultural Debris	Cultural, Other	1	2	Scrap Bin	
2426	Y16	1/18/2007	Y16-00114	281133.1357	3846170.601	D - Scrap Metal	5.466298103	Cultural Debris	Scrap Metal	1	12	Scrap Bin	Banding strap.
2427	Y16	1/18/2007	Y16-00115	281134.2142	3846174.677	C - Nail	5.343882084	Cultural Debris	Nail	1	6	Scrap Bin	
2428	Y16	1/18/2007	Y16-00116	281123.573	3846191.031	I - Under Road	5.314895378	Other	Under Road	0	0	No Action Required	
2429	Y16	1/18/2007	Y16-00117	281140.5384	3846168.779	C - Nail	5.250212193	Cultural Debris	Nail	2	4	Scrap Bin	
2430	Y16	1/18/2007	Y16-00118	281139.5149	3846173.702	C - Nail	5.219902039	Cultural Debris	Nail	3	2	Scrap Bin	
2431	Y16	1/18/2007	Y16-00119	281130.3141	3846180.132	C - Nail	5.089378403	Cultural Debris	Nail	1	6	Scrap Bin	
2432	Y16	1/18/2007	Y16-00120	281129.7918	3846177.175	E - Wire	4.999257953	Cultural Debris	Wire	1	12	Scrap Bin	
2433	Y16	1/18/2007	Y16-00121	281145.6138	3846169.797	C - Nail	4.920876503	Cultural Debris	Nail	3	6	Scrap Bin	
2434	Y16	1/18/2007	Y16-00122	281125.0479	3846185.287	I - Under Road	4.842968332	Other	Under Road	0	0	No Action Required	
2435	Y16	1/18/2007	Y16-00123	281149.0626	3846187.356	C - Nail	4.752850533	Cultural Debris	Nail	4	6	Scrap Bin	

Appendix D
Intrusive Investigation Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Dig Event ID	Grid	Date	ID	X-Coordinates	Y Coordinates	Frequency of Item	Aplitude	Class	Category	Quantity	Depth	Action	Comment
2436	Y16	1/18/2007	Y16-00124	281147.4774	3846169.23	I - Under Road	4.748885888	Other	Under Road	0	0	No Action Required	
2437	Y16	1/18/2007	Y16-00125	281135.5824	3846171.612	D - Scrap Metal	4.739306697	Cultural Debris	Scrap Metal	3	6	Scrap Bin	
2438	Y16	1/18/2007	Y16-00126	281146.3936	3846166.409	I - Under Road	4.710709095	Other	Under Road	0	0	No Action Required	
2439	Y16	1/18/2007	Y16-00127	281149.0923	3846167.38	I - Under Road	4.677715505	Other	Under Road	0	0	No Action Required	
2440	Y16	1/18/2007	Y16-00128	281132.5874	3846175.963	E - Wire	4.671774387	Cultural Debris	Wire	1	4	Scrap Bin	
2441	Y16	1/18/2007	Y16-00129	281148.6969	3846182.031	I - Under Road	4.590348244	Other	Under Road	0	0	No Action Required	
2442	Y16	1/18/2007	Y16-00130	281132.289	3846187.57	D - Scrap Metal	4.545081139	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2443	Y16	1/18/2007	Y16-00131	281139.3198	3846165.014	C - Nail	4.543274879	Cultural Debris	Nail	2	4	Scrap Bin	
2444	Y16	1/18/2007	Y16-00132	281144.752	3846189.749	F - Cultural, Other	4.541546499	Cultural Debris	Cultural, Other	1	4	Scrap Bin	Spring
2445	Y16	1/18/2007	Y16-00133	281137.76	3846164.161	E - Wire	4.453601837	Cultural Debris	Wire	3	4	Scrap Bin	
2446	Y16	1/18/2007	Y16-00134	281142.9453	3846179.362	F - Cultural, Other	4.383509636	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Pipe, Wire.
2447	Y16	1/18/2007	Y16-00135	281147.4906	3846182.384	C - Nail	4.323515892	Cultural Debris	Nail	3	4	Scrap Bin	
2448	Y16	1/18/2007	Y16-00136	281141.7573	3846187.801	F - Cultural, Other	4.26404953	Cultural Debris	Cultural, Other	1	6	Scrap Bin	
2449	Y16	1/18/2007	Y16-00137	281132.0697	3846185.9	E - Wire	4.210893154	Cultural Debris	Wire	1	12	Scrap Bin	Communicaton cable.
2450	Y16	1/18/2007	Y16-00138	281143.8471	3846186.649	D - Scrap Metal	4.188980579	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
2451	Y16	1/18/2007	Y16-00139	281134.8736	3846163.737	D - Scrap Metal	4.187931469	Cultural Debris	Scrap Metal	1	12	Scrap Bin	
2452	Y16	1/18/2007	Y16-00140	281130.175	3846183.03	E - Wire	4.162719367	Cultural Debris	Wire	1	4	Scrap Bin	
2453	Y16	1/18/2007	Y16-00141	281150.3966	3846167.317	I - Under Road	4.146175385	Other	Under Road	0	0	No Action Required	
2454	Y16	1/18/2007	Y16-00142	281124.1488	3846174.775	C - Nail	4.122283936	Cultural Debris	Nail	4	18	Scrap Bin	
2455	Y16	1/18/2007	Y16-00143	281123.9662	3846185.462	C - Nail	4.104952335	Cultural Debris	Nail	1	6	Scrap Bin	
2456	Y16	1/18/2007	Y16-00144	281123.0276	3846169.632	E - Wire	4.072722912	Cultural Debris	Wire	1	12	Scrap Bin	
2457	Y16	1/18/2007	Y16-00145	281141.9097	3846191.609	D - Scrap Metal	4.035883904	Cultural Debris	Scrap Metal	1	6	Scrap Bin	
2458	Y16	1/18/2007	Y16-00146	281151.061	3846183.92	I - Under Road	3.996269941	Other	Under Road	0	0	No Action Required	
2459	Y16	1/18/2007	Y16-00147	281145.8578	3846191.146	F - Cultural, Other	3.953631401	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Wire, Nail.
2460	Y16	1/18/2007	Y16-00148	281146.6438	3846191.725	F - Cultural, Other	3.896658897	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Wire, Nail.
2461	Y16	1/18/2007	Y16-00149	281149.1781	3846170.127	I - Under Road	3.872783411	Other	Under Road	0	0	No Action Required	
2462	Y16	1/18/2007	Y16-00150	281123.6249	3846176.932	C - Nail	3.854964256	Cultural Debris	Nail	1	12	Scrap Bin	
2463	Y16	1/18/2007	Y16-00151	281150.7136	3846179.052	I - Under Road	3.804705143	Other	Under Road	0	0	No Action Required	
2464	Y16	1/18/2007	Y16-00152	281133.6051	3846186.144	D - Scrap Metal	3.802241325	Cultural Debris	Scrap Metal	1	4	Scrap Bin	
2465	Y16	1/18/2007	Y16-00153	281149.1723	3846190.098	C - Nail	3.796940565	Cultural Debris	Nail	4	4	Scrap Bin	
2466	Y16	1/18/2007	Y16-00154	281132.6291	3846183.761	C - Nail	3.725004559	Cultural Debris	Nail	1	6	Scrap Bin	
2467	Y16	1/18/2007	Y16-00155	281153.5592	3846192.974	I - Under Road	3.705810785	Other	Under Road	0	0	No Action Required	
2468	Y16	1/18/2007	Y16-00156	281122.4845	3846164.203	C - Nail	3.697639405	Cultural Debris	Nail	2	6	Scrap Bin	
2469	Y16	1/18/2007	Y16-00157	281123.1191	3846171.917	F - Cultural, Other	3.675296783	Cultural Debris	Cultural, Other	2	12	Scrap Bin	Wire, Bolt.
2470	Y16	1/18/2007	Y16-00158	281134.4579	3846176.956	D - Scrap Metal	3.662623644	Cultural Debris	Scrap Metal	2	4	Scrap Bin	
2471	Y16	1/18/2007	Y16-00159	281148.4531	3846172.124	I - Under Road	3.625260592	Other	Under Road	0	0	No Action Required	
2472	Y16	1/18/2007	Y16-00160	281143.9322	3846169.711	F - Cultural, Other	3.612566948	Cultural Debris	Cultural, Other	1	12	Scrap Bin	Magnet
2473	Y16	1/18/2007	Y16-00161	281128.8963	3846184.038	D - Scrap Metal	3.574258731	Cultural Debris	Scrap Metal	4	12	Scrap Bin	
2474	Y16	1/18/2007	Y16-00162	281151.0912	3846169.425	I - Under Road	3.528091908	Other	Under Road	0	0	No Action Required	
2475	Y16	1/18/2007	Y16-00163	281125.0931	3846167.872	F - Cultural, Other	3.523755074	Cultural Debris	Cultural, Other	4	12	Scrap Bin	4 Bolts.
2476	Y16	1/18/2007	Y16-00164	281150.4638	3846176.62	I - Under Road	3.47332263	Other	Under Road	0	0	No Action Required	
2477	Y16	1/18/2007	Y16-00165	281134.318	3846188.709	E - Wire	3.470032692	Cultural Debris	Wire	1	6	Scrap Bin	
2478	Y16	1/18/2007	Y16-00166	281134.5795	3846178.812	E - Wire	3.459251779	Cultural Debris	Wire	1	6	Scrap Bin	
2479	Y16	1/18/2007	Y16-00167	281150.3052	3846165.032	I - Under Road	3.402916431	Other	Under Road	0	0	No Action Required	
2480	Y16	1/18/2007	Y16-00168	281149.1049	3846165.538	I - Under Road	3.380295992	Other	Under Road	0	0	No Action Required	
2481	Y16	1/18/2007	Y16-00169	281143.3837	3846163.631	C - Nail	3.324149847	Cultural Debris	Nail	3	2	Scrap Bin	
2482	Y16	1/18/2007	Y16-00170	281133.9521	3846171.941	C - Nail	3.27804327	Cultural Debris	Nail	2	6	Scrap Bin	
2483	Y16	1/18/2007	Y16-00171	281150.7929	3846181.032	I - Under Road	3.262001753	Other	Under Road	0	0	No Action Required	
2484	Y16	1/18/2007	Y16-00172	281127.2562	3846176.176	D - Scrap Metal	3.20049262	Cultural Debris	Scrap Metal	1	6	Scrap Bin	1 x 4 jnch piece.
2485	Y16	1/18/2007	Y16-00173	281141.8849	3846168.115	F - Cultural, Other	3.197197676	Cultural Debris	Cultural, Other	2	6	Scrap Bin	Large staple.
2486	Y16	1/18/2007	Y16-00174	281146.0833	3846192.968	D - Scrap Metal	3.192824602	Cultural Debris	Scrap Metal	2	6	Scrap Bin	Communication wire. Metal pieces .
2487	Y16	1/18/2007	Y16-00175	281149.9156	3846185.796	I - Under Road	3.190247297	Other	Under Road	0	0	No Action Required	
2488	Y16	1/18/2007	Y16-00176	281122.9774	3846184.207	C - Nail	3.125483466	Cultural Debris	Nail	3	12	Scrap Bin	
2489	Y16	1/18/2007	Y16-00177	281138.1624	3846181.842	C - Nail	3.042609453	Cultural Debris	Nail	3	6	Scrap Bin	
2490	Y16	1/18/2007	Y16-00178	281144.7977	3846191.341	C - Nail	3.01	Cultural Debris	Nail	2	6	Scrap Bin	
2491	Y16	1/18/2007	Y16-00179	281137.6262	3846176.066	C - Nail	3	Cultural Debris	Nail	2	4	Scrap Bin	

Appendix E
Soil Boring Logs, Well Completion Diagrams,and Well Construction Records

Soil Boring Logs

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS01 (and MR04-MW01)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS : 13.7' bgs at completion START : 3/14/2006 END : 3/14/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-6" Dark brown topsoil	Lithology also used for installation of MW01.
	0-4	4			6"-4.0' Loose well graded silty sand (SM)	Collect MR04-SS01-(0-4) from 0'-4' bgs at 1010 on 3/14/06
5	4'-8'	4			4.0'-6.0' Loose well graded silty sand (SM)	
					6.0'-8.0' Med. plas. light brown fat clay w/ silt (CL)	
					8.0'-10.0' Med. plas. light brown silt w/ sand (ML)	
10	8'-12'	4			10.0'-12.0' Loose light brown well graded nedium grained sand (SW)	
	12'-16'	4			12.0'13.5' Light brown well graded F/M silty sand (SM)	
					13.5'-16.0' Med. Plas. light brown silt w/ sand (ML)	
15						
	16'-20'	4			16.0'-20.0' Light brown w/ orangish brown wet silty fine sand (SM) 3" of silt w/ sand (ML) at 18.5'	
20	20'-24'	4			20.0'24.0' Dense wet light brown F/M silty sand (SM)	
25	24'-28'	4			24.0'-28.0' Dense wet light brown to orangish brown wet F/M silty sand	
					28.0'-32.0' Dense light brown to orangish brown wet well graded F/M silty sand (SM)	
30						
					EOB at 32' bgs; DTW at 13.7' bgs upon completion	

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS02 (and MR04-MW03)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS : 13.7' bgs at completion START : 3/15/2006 END : 3/15/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-4" Dark brown topsoil 4"-2.0' Low plas. brown silt with sand (ML)	Lithology used for installation of MW03. Collect MR04-SS02-(0-4) from 0'-2' bgs at 1610 on 3/15/06
	0-4	4			2.0' - 4.0' Med. dense brown fine silty sand (SM)	
5	4'-8'	4			4.0' - 8.0' Med. dense brown fine silty sand (SM)	
					8.0' - 11.0' Med. dense light brown fine silty sand (SM)	
10	8'-12'	4				
					11.0' - 12.0' Low plas. light brown silt with sand (ML)	
	12'-16'	4			12.0' - 14.0' Low plas. light brown to orangish brown silt with sand (ML)	
15					14.0' - 16.0' Med. plas brown to orangish brown clay with sand, lean (CL)	
				p. pen = 2.0	16.0' - 17.0' Med. plas brown to orangish brown clay with sand (CL)	
	16'-20'				18.0' - 20.0' Dense moist (to 19.5') wet (19.5' - 20.0') well graded fine sand with silt (SW-SM)	
20	20'-24'				20.0' 0 24.0' Dense light gray well graded fine sand (SW)	
25					EOB = 24.0' ; DTW upon completion = 15.9'	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS03 (and MR04-MW04)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune
ELEVATION : DRILLING CONTRACTOR : Parratt Wolff
DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)
WATER LEVELS : 18.5' bgs at completion START : 3/15/2006 END : 3/15/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0' - 1.0' Dark brown top soil (fine silty sand with peat and organic matter)	Lithology used for installation of MW04
					1.0' - 2.5' Light brown low plas. silt with sand (ML)	
	0-4	4			2.5' - 4.0' Med. plas. light brown clay with trace sand (CL)	
5	4'-8'	4		p. pen = 2.0	4.0' - 6.5' Med. plas. light brown clay with trace sand (CL)	
					6.5' - 8.0' Dense light brown fine to medium silty sand	
					8.0' - 12.0' Med. dense well graded fine sand with silt (SW-SM)	Collect MR04-SS03-(8-12) from 8'-12' bgs at 1505 on 3/15/06
10	8'-12'	4				
	12'-16'	4			12.0' - 16.0' Dense light brown moist well graded sand with silt (SW-SM)	
15						
	16'-20'	4			16.0' - 18.0' Dense light brown moist well graded sand with silt (SW-SM)	
					18.0' - 20.0' Low plas. light brown silt with sand (ML)	
20	20'-24'	4			20.0' - 24.0' Dense light brown wet fine to medium silty sand (SM)	
25	24'-28'	4			24.0' - 28.0' Very dense light brown to gray well graded fine to medium sand with silt (SW-SM)	
					EOB = 28.0' ; DTW upon completion = 18.5'	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS04 (and MR04-MW05)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS 7.4' bgs at completion START : 3/13/2006 END : 3/13/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-1.0 Dark Brown Topsoil	Lithology used for the installation of MW05.
	0-4'	4			1.0'-4.0' Lgt brown silty sand w/ some clay (SM)	Collected MR04-SS04-(0-2) from 0'-2' bgs at 1715 on 3/13/06
5	4'-8'	4			4.0'-7.5' Brown and orange silty sand w/ some clay (SM)	
					7.5-8.0 Wet brown F/M sand with trace silt (SW)	
					8.0-8.5 Gray silty clay (CL)	
10	8'-12'	2.5			8.5'-12' Wet orange to brown F/M sand with some silt (SW-SM)	
	12'-16'	3			12'-14.5' Wet brown F/M sand w/ trace silt (SW)	
15					14.5'-16.0' Dark gray moist silt w/ some clay and sand (ML)	
	16'-20'	3			16'-20' Dark Gray moist silt with some clay and sand (ML)	
20	20'-24'	3			20-23 Dark gray wet silt with sand ans dome clay (ML) 23'-24' Soft green clay with some silt (CL)	
25					EOB at 24' bgs DTW=7.4' bgs upon completion	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS05 (and MR04-MW07)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS : 12.5' bgs at completion START : 3/15/2006 END : 3/15/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-6" Dark brown topsoil	Lithology used for the installation of MW07.
					6"-1.5' Loose light brown fine silty sand	Collect MR04-SS05-(0-4) and MR04-SS05-(0-4)D from 0'-2' bgs at 1055 on 3/15/06
	0-4	4			1.5'-4.0' Low plas. light brown silt w/ trace sand (ML)	
5	4'-8'	4			4.0'-6.5' Low plas. light brown w/ some orangish brown silt w/ trace sand (ML)	
					6.5'-8.0' Low plas. gray silt w/ trace sand (CL)	
				p.pen=0.5	8.0'-12.0' Med. plas. gray lean clay w/ trace sand (CL)	
10	8'-12'	4				
	12'-16'	4		p.pen=0.5	12.0'-14.5' Med. plas. brownish gray lean clay w/ trace sand (CL)	
					14.5'-15.5' Med/low plas. dark brown moist silt w/ sand (ML)	
15					15.5'-16.0' Dark brownwet F/M silty sand (SM)	
	16'-20'	4			16.0'-17.5' Med. plas. brown fat clay w/ sand (CH)	
					17.5'-19.5' Loose dark brown wet F/M silty sand (SM)	
20	20'-24'	4			19.5'-20.0' Med. plas. green fat clay w/ trace sand (CL)	
25					EOB at 24' bgs; DTW at 12.5' bgs upon completion	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS06 (and MR04-MW08)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS 9.7' bgs at completion START : 3/14/2006 END : 3/14/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-6" Dark brown topsoil w/ tree roots	Lithology used for the installatino of MW08.
					6"-2.5' Dense light brown silty sand with some clay (SM)	
	0-4	4			2.5'-4.0' Med. plas. light brown lean clay with sand (CL)	MR04-SS06-(2-4) collected at 1645 on 3/14/06
5	4'-8'	4			4.0'4.5' Med. dense light brown silty sand with some clay (SM)	
					4.5'-6.0' Med. plas. light brown lean clay w/ some silt (CL)	
					6.5'-8.0' Med. light brown silt with sand and some clay (ML)	
					8.0'9.5' Med. plas. light brown lean clay w/ silt (CL)	
10	8'-12'	4			9.5'-12.0' Dense light brown wet F/M silty sand (SM)	
					12.0'-12.5' Dense light brown wet F/M silty sand (SM)	
	12'-16'	4			12.5'-15.5' Med. Plas. brown fat clay w/ sand and silt (CL)	
15					15.5'-16.0' Dense wet F/M well graded sand (SW)	
					16.0'-20.0' Dense light brown wet F/M well graded sand (SW)	
	16'-20'	4				
20						
	20'-24'	4			20.0'24.0' Dense light brown wet F/M silty sand (SM)	
					24.0'-28.0' Very dense-Macrocore sampler lost in hole (threads failed)	
25						
	24'-28'	0				
					EOB at 28' bgs; DTW at 9.7' bgs upon completion	

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS07 (and MR04-MW10)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS : 13.7' bgs at completion START : 3/15/2006 END : 3/15/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0' - 8" Dark brown topsoil	Lithology used for the installation of MW10.
					8" - 2.0' Loose brown fine to medium silty sand (SM)	
	0-4	4			2.0' - 4.0' Low plas light brown silt with sand (ML)	
5	4'-8'	4			4.0' - 5.5' Loose brown fine to medium silty sand (SM)	Collect MR04-SS07-(8-6) from 4'-6' bgs at 1230 on 3/15/06
					5.5' - 8.0' Low plas. light brown silt with sand (ML)	
					8.0' - 11.0' Low plas light brown silt with sand (ML)	
10	8'-12'	4		p. pen = 1.5		
					11.0' - 12.0' Med plas. brown lean clay with sand (CL)	
	12'-16'	4			12.0' - 15.0' Low plas. light brown silt with sand (ML)	
15					15.0' - 16.0' Loose medium dense light brown fine silty sand, moist (SM)	
					16.0' - 20.0' Medium dense light brown to gray wet fine silty sand (SM)	
	16'-20'	4				
20	20'-24'				20.0' - 24' Medium dense light brown to gray fine silty sand (SM)	
25					EOB = 24.0' ; DTW upon completion = 13.7'	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS08 (and MR04-MW11)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS 18.0' bgs at completion START : 3/14/2006 END : 3/14/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-1.0' Dark brown topsoil	Lithology used for the installation of MW11.
	0-4	4			1.0'-4.0 Med. plas. brown to gray silt/ sand (ML)	Collect MR04-SS08-(0-2) from 0'-2' bgs at 1235 on 3/14/06
5	4'-8'	4			4.0'-6.0' Dense brown silt w/ sand (ML)	
					6.0'-8.0' Dense brown silty sand (SM)	
					8.0'-10.0' Med. dense brown silty sand (SM)	
10	8'-12'	4			10.0'-12.0' Med. dense light brown well graded fine sand (some Fe stains)(SW)	
	12'-16'	4			12.0'-13.5' Orangish brown well graded moist fine silty sand (SM)	
				p.pen=2.5	13.5'-16.0' Med. plas. gray to orangish brown fat clay w/ sand (CH)	
15						
	16'-20'	4			16.0'-18.0' Dense light to dark brown silty fine sand w/ some clay (SM)	
					18.0'-20.0' Med. dense gray to brown wet fine silty sand (SM)	
20	20'-24'	4			20.0'-24.0' Med. dense brown wet fine silty sand (SM)	
25	24'-28'	4			24.0'-28.0' Med. dense brown wet fine silty sand (SM)	
					28.0'-32.0' Dense gray to orangish brown wet fine silty sand (SM)	
30						
					EOB at 32' bgs; DTW at 18.0' bgs upon completion	

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS09 (and MR04-MW13)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS 18.0' bgs at completion START : 3/15/2006 END : 3/15/06 LOGGER : S. Pratt

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-4" Dark brown topsoil	Lithology used for the installation of MW13.
	0-4	4			4"-1.5' Med/Low plas. light brown silt with trace sand (ML)	Collect MR04-SS09-(0-2) from 0'-2' bgs at 0920 on 3/15/06
					1.5'-4.0' Med. plas. light brown lean clay w/ sand (CL)	
5	4'-8'	4			4.0'-5.0' Med. plas. light brown silt w/ sand (ML)	
					5.0'-8.0' Med. dense light brown F/M silty sand (SM)	
					8.0'-9.0' Med. dense light brown w/ some orangish brown F/M silty sand (SM)	
10	8'-12'	4			9.0'-11.0' Med. plas. light brown to gray silt w/ sand (ML)	
					11.0'-12.0' Med. plas. gray silt w/ sand (ML)	
	12'-16'	4			12.0'-16.0' Med. dense light brown to gray F/M silty sand (SM)	
15						
					16.0'-19.0' Med. dense moist light brown fine silty sand (SM)	
	16'-20'	3				
					19.0'-20.0' Med. plas. moist gray to brown silt w/ sand	
20					20.0-21.5' Med. plas. wet brown silt w/ sand	
	20'-24'	4			21.5'-24.0' Med. dense wet brown F/M silty sand (SM)	
					24.0'-28.0' Loose light brown wet fine silty sand (SM)	
25	24'-28'	3				
					EOB at 28' bgs; DTW at 18.0' bgs upon completion	
30						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-SS10 (and MR04-MW14)	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Well Installation LOCATION : MCB Camp Lejeune

ELEVATION : DRILLING CONTRACTOR : Parratt Wolff

DRILLING METHOD AND EQUIPMENT USED : Ingersoll Rand A-200 (DPT)

WATER LEVELS 5.0' bgs at completion START : 3/14/2006 END : 3/14/06 LOGGER : STP

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.		COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					0-6"	Dark Brown Topsoil	Lithology used for the installation of MW14.
					6"-2.5'	Light brown moist loose silty sand (SM)	Collect MR04-SS10-(0-2) from 0'-2' bgs at 1010 on 3/15/06
	0-4	4		p.pen=2.0	2.5'-4.0'	Light brown stiff sandy clay with some silt (CL)	
5	4'-8'	4			4.0'-5.5'	Light brown med. dense fine silty sand (SM)	
				p.pen=2.5	5.5'-8.0'	Medium gray silty clay w/ trace sand (CL)	
					8.0-11.0	Loose wet brown well graded sand with silt (SW-SM)	
10	8'-12'	4			11.0-12.0	Med. dense to dense wet brown well graded F/M silty sand (SM)	
	12'-16'	4			12.0-16.0	Med. dense to dense wet brown well graded F/M silty sand (SM)	
15							
					16.0-18.0	Med. dense to dense wet brown well graded F/M silty sand (SM)	
	16'-20'	4			18.0-19.0	Dense wet brown well graded med. sand with some silt (SW-SM)	
					19.0-20.0	Med. dense to dense wet brown well graded F/M silty sand (SM)	
20					20.0-23.0	Dense wet brown well graded med. sand with some silt (SW-SM)	
	20'-24'	4			23.0-24.0	Dense wet green well graded F/M sand with silt (SW-SM)	
					24.0-25.5	Dense moist green to brown well graded silty sand (SM)	
25					25.5-28.0	Dense moist green silt w/ sand (ML)	
	24'-28'	4					
					EOB at 28' bgs; DTW at 5.0' bgs upon completion		

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-MW02	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Drilling, Camp Lejeune, NC LOCATION : North end of site along Camp Knox Blvd.
ELEVATION : DRILLING CONTRACTOR : Parrat-Wolff Drilling
DRILLING METHOD AND EQUIPMENT USED : CME w/ 5 7/8" roller-bit; mud rotary
WATER LEVELS : START : 3/16/2006 END : 3/19/2006 LOGGER : B. Rahe

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
	30' - 35'	----	----	----	30' - 35', NOT SAMPLED	Continuation of log MR04-SS01, drilled to 32' bgs. DPT sampling was conducted within a few feet of MW01/MW02. One sample was collected every 5-ft interval during completion of this boring. 3/16/2006: Set surface casing to 24-ft bgs. 3/19/2006: Setup and install monitoring well MW02 First split-spoon collected at 35-ft bgs. DPT sampling stopped at 32-ft bgs.
35	35' - 37'	1.5	SS-1	Blow counts not collected	35' - 37', **SAND**, (SP), light olive brown (5Y 5/6), wet, medium dense, poorly graded fine quartz sand, trace silt. 37' - 40' NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 37' - 40' bgs not sampled
40	40' - 42'	2.0	SS-2	Blow counts not collected	40' - 42', As logged 35' - 37', **SAND**, (SP). 42' - 45', NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 42' - 45' bgs not sampled Noted shell fragments in cuttings at 44.5' - 45'
45	45' - 47'	2.0	SS-3	Blow counts not collected	45' - 47', As logged 35' - 42', **SAND**, (SP-SM), Olive gray (5Y 3/2), wet, medium dense, poorly sorted fine to very fine quartz sand, trace silt. 46.5' - 47', As logged 45' - 46.5', **(SP-SM)**, light olive gray (5Y 5/2).	LEL = 0% O2 = 20.9% PID = 0 ppm Set well at 45-ft bgs 5-ft PVC screen (10-slot) 40-ft PVC riser 3-ft PVC stickup
50 55					TD: Drilled to 45-ft bgs Sampled to 47-ft bgs Set well at 45-ft bgs	

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-MW06	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Drilling, Camp Lejeune, NC LOCATION : North end of Baltimore Rd.
ELEVATION : DRILLING CONTRACTOR : Parrat-Wolff Drilling
DRILLING METHOD AND EQUIPMENT USED : CME w/ 5 7/8" roller-bit; mud rotary
WATER LEVELS : START : 3/14/2006 END : 3/17/2006 LOGGER : B. Rahe

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
	30' - 32'	2.0'	SS-1	Blow counts not collected	30' - 32', **SAND**, (SP), light olive brown (5YR 5/6), wet, loose to medium dense, poorly graded quartz sand, decayed wood/organic material (dusky brown [5YR2/2]) upper 6-inches of sample. 32' - 35', NOT SAMPLED	Continuation of log MR04-SS04, drilled to 24' bgs. DPT sampling was conducted within a few feet of MW05/MW06. One sample was collected every 5-ft interval during completion of this boring. 3/14/2006: Set surface casing to 25-ft bgs. 3/17/2006: Setup and install monitoring well MW06 First split-spoon collected at 30-ft bgs. LEL = 0% O2 = 20.9% PID = 0 ppm
35	35' - 37'	1.2	SS-2	Blow counts not collected	35' - 37', **SAND**, (SP), olive gray (5Y 2/2), wet, medium dense to dense, poorly graded quartz sand, very fine, trace silt. 37' - 40', NOT SAMPLED	32' - 35' bgs not sampled LEL = 0% LEL = 0% O2 = 20.9% PID = 0 ppm 37' - 40' bgs not sampled
40	40' - 42'	1.8	SS-3	Blow counts not collected	40' - 45', As logged 35' - 37', **SAND**, (SP), 42' - 45', NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 42' - 45' bgs not sampled
45	45' - 47'	2.0	SS-4	Blow counts not collected	45' - 47', As logged 35' - 42', **SAND**, (SP),	LEL = 0% O2 = 20.9% PID = 0 ppm
50 55					TD: Drilled to 45-ft bgs Sampled to 47-ft bgs	Set well at 45-ft bgs 5-ft PVC screen (10-slot) 40-ft PVC riser 3-ft PVC stickup

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-MW09	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Drilling, Camp Lejeune, NC LOCATION : Southwest corner of site along main road.
ELEVATION : DRILLING CONTRACTOR : Parrat-Wolff Drilling
DRILLING METHOD AND EQUIPMENT USED : CME w/ 5 7/8" roller-bit; mud rotary
WATER LEVELS : START : 3/16/2006 END : 3/18/2006 LOGGER : B. Rahe

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
	25' - 27'	2.0'	SS-1	Blow counts not collected	25' - 27', SAND, (SP), light olive brown (5Y 5/6), wet, loose to medium dense, poorly graded fine to medium quartz sand. 27' - 30', NOT SAMPLED	Continuation of log MR04-SS06, drilled to 24' bgs. DPT sampling was conducted within a few feet of MW08/MW09. One sample was collected every 5-ft interval during completion of this boring. 3/16/2006: Set surface casing to 20' bgs 3/18/2006: DPT sampling stopped at 26' bgs. LEL = 0% O2 = 20.9% PID = 0 ppm
30	30' - 32'	1.0'	SS-2	Blow counts not collected	30' - 32', SAND with SILT, (SP - SM), olive brown (5Y 3/2), moist to wet, medium dense, poorly graded fine quartz sand, 10% silt. 32' - 35', NOT SAMPLED	27' - 30' not sampled. Driller notes lithology change at about 28' bgs from cuttings and color change in fluid return. LEL = 0% O2 = 20.9% PID = 0 ppm 32' - 35' not sampled.
35	35' - 37'	2.0'	SS-3	Blow counts not collected	35' - 37', As logged 30' - 32',(SP-SM) 37' - 40', NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 37' - 40' not sampled. Have driller go to 40', will set well at that depth so there is sufficient difference between screen intervals in shallow and deep wells. Cuttings from 37' - 40' indicate no change in lithology, therefore did not run split spoon at 40' bgs.
40					TD = 40' bgs Set well at 40' bgs.	
45						
50						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-MW12	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Drilling, Camp Lejeune, NC LOCATION : Near intersection of Omaha and Atlanta
ELEVATION : DRILLING CONTRACTOR : Parrat-Wolff Drilling
DRILLING METHOD AND EQUIPMENT USED : CME w/ 5 7/8" roller-bit; mud rotary
WATER LEVELS : START : 3/16/2006 END : 3/18/2006 LOGGER : B. Rahe

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					30' - 32', NOT SAMPLED	Continuation of log MR04-SS08, drilled to 32' bgs. DPT sampling was conducted within a few feet of MW11/MW12. One sample was collected every 5-ft interval during completion of this boring.
	32' - 34'	1.4'	SS-1	Blow counts not collected	32' - 34', SAND, (SP), light olive rown (5Y 5/6), moist to wet, medium dense, poorly graded fine quartz sand, trace silt. 34' - 37', NOT SAMPLED	3/16/2006: Set surface casing to 28-ft bgs. 3/19/2006: Setup and install monitoring well MW12 30' - 32' bgs not sampled LEL = 0% O2 = 20.9% PID = 0 ppm 34' - 37' bgs not sampled
35	37' - 39'	2.0'	SS-2	Blow counts not collected	37' - 39', SAND, (SP), olive gray (5Y 3/2), moist to wet, medium dense to dense, poorly graded fine quartz sand, trace silt. 39' - 42', NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 39' - 42' bgs not sampled
40	42' - 44'	2.0'	SS-3	Blow counts not collected	42' - 44', As logged 37' - 39', SAND, (SP), trace silt. 44' - 47', NOT SAMPLED	LEL = 0% O2 = 20.9% PID = 0 ppm 44' - 47' bgs not sampled Cuttings at 46' bgs indicate coarse sand and shell fragments
45	47' - 49'	2.0'	SS-4	Blow counts not collected	47' - 49', SAND with SILT, (SP - SM), light olive gray (5Y 5/2), moist to wet dense, poorly graded fine quartz sand with silt and shell fragments.	LEL = 0% O2 = 20.9% PID = 0 ppm Will set well at 50' bgs to screen interval estimated at 46' bgs that contains coarse sand.
50					TD = 50' bgs	Set well at 50-ft bgs
55						

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
330966.SI.FI	MR04-MW15	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Knox Trailer Park Drilling, Camp Lejeune, NC LOCATION : Adjacent to creek, southeast corner of the site.

ELEVATION : DRILLING CONTRACTOR : Parrat-Wolff Drilling

DRILLING METHOD AND EQUIPMENT USED : CME w/ 5 7/8" roller-bit; mud rotary

WATER LEVELS : START : 3/14/2006 END : 3/19/2006 LOGGER : B. Rahe

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
	30' - 32'	2.0'	SS-1	Blow counts not collected	30' - 32', **SAND with SILT**, (SP-SM), Olive gray (5Y 3/2), moist to wet, loose, poorly graded fine quartz sand with ~15% silt. 32' - 35', NOT SAMPLED	Continuation of log MR04-SS10, drilled to 28' bgs. DPT sampling was conducted within a few feet of MW14/MW15. One sample was collected every 5-ft interval during completion of this boring. 3/14/2006: Set surface casing to 25-ft bgs. 3/19/2006: Setup and install monitoring well MW15 First split-spoon collected at 30-ft bgs. LEL = 0% O2 = 20.8% PID = 0 ppm
35	35' - 37'	2.0'	SS-2	Blow counts not collected	35' - 37', **SAND with SILT**, (SM), grayish olive (10Y 4/2), dense, dry to moist, very fine poorly graded sand with silt, trace shells.	32' - 35' bgs not sampled LEL = 0% O2 = 20.8% PID = 0 ppm
40 45 50 55					TD = 35-ft bgs. Sampled to 37-ft bgs. Set well at 33-ft bgs.	Noted change in lithology from cuttings at ~33' bgs. Set well at 33'.

Boring Number: IS11

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/13/07 07:50 to 08:20

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Silty Sand (SM)** Silty sand, SM, brown, moist, loose, roots	0 -1	Hand auger to 5' bgs
	NA	HA	NA	NA		**Sandy Silt (SM)** Sandy Silt, SM, orange-tan, moist, loose-medium, inceasing clay with depth	1 -5	PID = 34.7 and 28.6 ppm from bucket Samples collected MR04-IS11-2-4-07C and MR04-IS11D-2-4-07C Because of elevated PID resampled 0-5 ft bgs. PID=4.8
5	1	MC	100	NA		**Clay (CL-CH)** Clay with trace of silt, CL-CH, orange-tan, moist, medium to high plasticity	5 -10	PID = 0.00 ppm
10						End of Log	10	
15								
20								

Boring Number: IS12

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/13/07 08:35 to 08:50

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SC-SP)** Very fine silty sand traces of clay and organics (roots), SC-SP, brown-orange-tan, dry, loose-medium density	0 -5	Hand auger to 5' bgs PID from Bucket = 1.3 ppm and 3.8 ppm PID=0.6 ppm
5	1	MC	100	NA		**Clay (CL-CH)** Clay with traces of silt, CL-CH, grey-orange, moist, medium to high plasticity, stiff-very stiff	5 -8	
						Sand (SP) Very fine to fine sand, SP, light grey-orange-tan, moist, loose, low-no plasticity, some laminations	8	
10	2	MC	100	NA			-13	
						Clay (CL) Very fine silty clay, CL, orange, moist-wet, low to medium plasticity, soft to medium stiffness	13	
						Clay (CL) Silty clay, CL, grey-orange, moist, medium plasticity soft-medium stiffness		
15	3	MC	100	NA			-18	
						Sand (SP) Very fine to fine sand, SP, light grey-orange-tan, moist, loose, low-no plasticity, some laminations	18	Samples collected MR04-IS12-18-20-07C and MR04-IS12D-18-20-07C
20							-20 20	

CH2MHILL

Boring Number: IS12

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/13/07 08:35 to 08:50

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
	4	MC	0	NA		**No Recovery**		Tube stuck on rod. Saturated at bottom.
25							-25	
						End of Log	25	
30								
35								
40								

Boring Number: IS13

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 16:25 to 16:38

Depth (ft)	Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM)** Silty fine sand some clay, SM, tan-orange, moist, loose, organic topsoil, roots	0	Hand auger to 5 ft bgs. Set back 1 ft on asphalt PID=4.3 ppm and 1.2 ppm from bucket (may have some asphalt in soil mixture)
5	1	MC	100	NA		**Clay (CL-CH)** Clay with traces of silt, CL-CH, grey-orange, moist, medium to high plasticity, stiff	-5 5	PID=0.0
10	2	MC	100	NA				PID=0.0 Sample Collected MR04-IS13-12-14-07C
							-14 14	
15						**Silty Sand (SM)** Silty fine sand, SM, orange-grey, wet, loose to medium density, low-medium plasticity	-15 15	
						End of Log		
20								

CH2MHILL

Boring Number: IS14

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Hand Auger
Sampling Method: Hand Auger
Logged by: E. Must
Start/Finish Date: 9/13/07 11:00 to 11:30

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Silty Sand (SM)** Silty very fine sand, SM, dark brown, moist, loose, roots	0 / -1	Hand auger because sleeve stuck in rod. PID=0.1 ppm
						Silty Sand (SP) Silty very fine-fine sand traces of clay, SP, orange-tan, moist, loose to medium density, low plasticity	1	PID=1.5 ppm PID=7.9 ppm
						Silty Sand (SP) Silty very fine-fine sand with traces of clay, SP, orange-tan, moist, low to medium density, low to medium plasticity	-4 / 4	PID=0.5 ppm
5	NA	HA	100	NA		**Clay (CL-CH)** Clay with traces of silt, CL-CH, grey orange, medium density, medium plasticity	-6 / 6	PID=1.5 ppm PID=1.4 ppm and 1.2 ppm PID=3.8 ppm PID=3.5 ppm and 2.2 ppm
						Silty Sand (SM) Silty sand traces of clay, SM, tan-orange, moist-wet, loose to medium density	-9 / 9	Sample collected MR04-IS14-8-10-07C and MS/MSD
10						End of Log	-10 / 10	
15								
20								

CH2MHILL

Boring Number: IS15

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 15:30 to 15:51

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Clayey Sand (SC)** Silty clayey fine sand, SC, tan-orange-brown, medium density, meidum plasticity	0 -5	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Sandy Clay (SC)** Very fine sandy clay, SC, orange-tan, moist, medium plasticity, stiff	5 -8	PID= 0.0 ppm
						Clay (CL) Clay with traces of silt, CL, moist, medium to high plasticity, stiff, roots	8 -10	
10	2	MC	100	NA		**Clay (CL)** Clay with traces of silt, CL, moist, medium to high plasticity, stiff	10 -13	PID= 0.0 ppm
						Clayey Sand (SC) Clayey very fine sand, SC, orange-tan, wet, medium density, low to medium plasticity	13	Sample collected MR04-IS15-13-15-07C
						Silty Clay (ML) Silty clay, ML, tan-grey, moist, low to medium plasticity, soft to medium plasticity	-15 15	
15	3	MC	100	NA		**Clay (CL)** Clay with traces of silt, CL, moist, medium to high plasticity, stiff	-17	PID=0.0 ppm
						Silty Sand (SM-SP) Silty sand some clay, SM-SP, orange-tan, wet, soft, low to medium plasticity	17 -18 18	
						Silty Clay (ML) Silty clay, ML, tan-orange, wet, soft, medium plasticity	-20	
20							20	

Boring Number: IS16

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 15:05 to 15:20

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Clayey Sand (CL)** Clayey silty fine sand, ML, tan, moist, medium stiff to stiff	0 -5	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Sandy Clay (SC)** Very fine sandy clay with laminations and clasts, SC, tan with orange laminations, moist, medium plasticity, stiff	5 -8	PID= 0.0 ppm Sample collected MR04-IS16-7-9-07C
						Sandy Clay (SC) Very fine to fine sand traces of clay, SC, tan-orange, wet to saturation at 9 ft bgs, loose to medium density, low plasticity	8 -10	
10						End of Log	10	
15								
20								

Boring Number: IS17

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejuene
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 07:45 to 08:08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Clay (SC)** Silty clay with some fine sand, SC, orange-tan, moist, medium density, medium plasticity	0	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Silty Sand (SM)** Very fine silty sand increasing clay at 8 to 8.5 ft bgs, SM, tan-orange, moist, loose to medium density, low plasticity	-6 6	PID= 0.0 ppm Sample collected MR04-IS17-9-11-07C
10	2	MC	100	NA		**Clay (CL)** Clay with traces of silt and fine sand, CL, tan-orange, medium density, medium plasticity	-11 11	PID=0.0 ppm
						Silty Sand (SM) Very fine silty sand increasing clay with depth, SM, tan-orange, wet, loose to medium density, low plasticity	-12 12	
						Clay (CL) Clay with traces of silt and fine sand, CL, tan-orange, saturated, medium density, medium plasticiy	-13 13	
15						End of Log	-15 15	
20								

Boring Number: IS18

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 16:00 to 16:25

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM)** Very fine silty sand, SM, brown-tan, moist, loose to medium density, low plasticity	0 -5	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Clayey Sand (SC)** Clayey very fine sand, SC, tan-orange, wet, soft, medium plasticity	5 -7	PID= 0.0 ppm
						Sandy Clay (SC-CL) Very fine sandy clay, SC-CL, tan-orange, wet, soft, medium plasticity	7 -10	Sample collected MR04-IS18-7-9-07C
10						**Clayey Sand (SC)** Clayey very fine sand, SC, tan-orange, wet to saturation, soft, medium plasticity	10	
						End of Log		
15								
20								

Boring Number: IS19

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 08:25 to 08:55

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM)** Very fine silty sand, SM, dark brown, loose, roots	0	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Silty Sand (SM-SP)** Silty sand, SM-SP, tan-grey, loose to medium density, low plasticity **Clay (CL)** Clay traces of silt, CL, tan, moist to saturation at 9.5 ft bgs, soft to medium stiff, low to medium plasticity	-5 5 -6 6 -10	PID= 0.0 ppm Sample collected MR04-IS19-7-9-07C
10						End of Log	10	
15								
20								

Boring Number: IS20

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 08:40 to 09:05

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0		HA	NA	NA		**Silty Sand (SM)** Silty very fine sand with traces of clay, SM, tan-brown, moist, loose to medium density, low to medium plasticity	0 -5	Hand auger to 5' bgs PID = 0.0 ppm
5		MC	100	NA		**Silty Sand (SM-SP)** Silty very fine sand gradual increase in clay from trace to some with depth, SM-SP, tan, loose to medium density, low to medium density	5 -7	PID= 0.0 ppm
						Clay (CL) Clay traces of silt and very fine sand, increase sand from trace to little (~20%) with depth, CL, tan-orange, saturation at 9.5 ft bgs, soft to medium stiff	7 -10	Sample collected MR04-IS20-7-9-07C
10						End of Log	10	
15								
20								

Boring Number: IS21

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 09:15 to 09:25

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Clayey Sand (SC)** Silty sandy clay, SC, brown-tan-orange, moist, stiff	0	Hand auger to 5' bgs PID = 0.0 ppm
5	1	MC	100	NA		**Clay (CL)** Clay with traces of silt and very fine sand, silt and sand increase up to 15% at ~8 ft bgs, tan-orange, moist, medium density	-5 5	PID= 0.0 ppm
						Medium Sand (SW) Medium sand, SW, orange-tan, moist to wet, loose, low to no plasticity,	-9 9	Sample collected MR04-IS21-8-10-07C and MS/MSD
10						End of Log	-10 10	
15								
20								

Boring Number: IS22

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 14:23 to 14:30

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Clayey Sand (SM-SC)** Silty clayey very fine sand, SM-SC, brown-orange, moist, medium density, low to medium plasticity	0	Hand auger to 5' bgs PID batteried dead on all PID's
5	1	MC	100	NA		**Clay (CL-CH)** Clay with clasts-silty-dry, CL-CH, tan-orange, moist, stiff, medium to high plasticity	-5 5	Sample collected MR04-IS22-7-9-07C
						Silty Clay (SC-CL) Silty clay, SC-CL, tan-orange, wet, medium stiff, medium plasticity	-9 9	
10						End of Log	-10 10	
15								
20								

Boring Number: IS23

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 13:20 to 14:10

Depth (ft)	Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	MC	80	NA		**Silty Sand (SM)** Silty very fine sand, SM, dark brown-tan, dry-moist, medium density, low plasticity, roots	0 / -1	
						Sandy Silt (SM) Very fine sandy silt, SM, light grey, dry to moist, low plasticity, laminations and roots	1 / -5	PID=0.0 ppm and 1.0 ppm
5	1	MC	100	NA		**Sandy Silt (SM)** Very fine sandy silt, SM, grey-orange, dry to moist, low plasticity, laminations and roots	5 / -7	PID=0.0 ppm
						Clayey Sand (SC) Clayey very fine sand, SC, grey with orange staining, moist, medium density, medium plasticity	7 / -9	Samples collected MR04-IS23-7-10-07C and MR04-IS23D-7-10-07C
10	2	MC	90	NA		**Sandy Silt (SM)** Silty very fine sand with traces of clay, SM, grey-tan, saturated at 11 ft bgs, loose to medium density, low plasticity	9 / -13	PID=0.0 ppm
						Clay (CL) Clay with traces of silt, CL, tan-orange, wet, stiff, medium to high plasticity	13 / -14	
15						**Sandy Clay (SC)** Sandy clay, SC, tan-orange, moist wet, medium stiff, about 45% laminations of medium sand with orange staining	14 / -15	
						End of Log	15	
20								

Boring Number: IS24

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 11:18 to 11:30

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	MC	50	NA		**Silty Sand (SM-SP)** Silty very fine sand, SM-SP, brown-tan, loose, low plasticity	0 / -1	
						Clay (SC) Silty clay, SC, orange, medium stiff, low plasticity	1 / -5	PID=0.0 ppm
5	1	MC	100	NA		**Clay (SC)** Silty clay with some orange clasts with more silt, SC, tan-orange, moist, medium stiff to stiff, medium plasticity	5 / -7	PID=0.0 ppm
						Clay (CL-CH) Clay, decrease in silt with depth, CL-CH, tan-orange, medium stiff, medium plasticity	7 / -10	Sample collected MR04-IS24-9-11-07C
10	2	MC	100	NA		**Clay (CL-CH)** Clay, silt and sand increase with depth, CL-CH, tan-orange, saturated at 12 ft bgs, medium stiff, medium plasticity	10 / -13	PID=0.0 ppm
						Clay (CL-CH) Clay increase in silt and sand with depth, CL-CH, orange, saturated, medium stiff, medium plasticity	13 / -15	
15						End of Log	15	
20								

Boring Number: IS25

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 10:44 to 11:05

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Silty Sand (SM-SP)** Silty very fine sand, SM-SP, brown-tan, moist, loose, low plasticity	0 -2	PID=0.9 ppm
	1	MC	60	NA		**Clay (SC)** Silty clay with some pea size dark orange clasts, SC, orange, soft to medium density, low plasticity	2 -6	PID=0.3 ppm
5								
	2	MC	100	NA		**Clay (SC)** Silty clay with some pea size dark orange clasts and less silt then above, SC, tan-orange, stiff, low plasticity	6 -10	PID=0.3 ppm
10						**Clayey Sand (CL)** Clayey very fine sand, CL, grey and orange, medium density, low to medium plasticity	10 -11	Samples collected MR04-IS25-9-11-07C
	3	MC	100	NA		**Clay (CL)** Clay with some silt, CL, grey with orange silty clasts, stiff, medium plasticity	11 -15	PID=0.0 ppm Water level in hole ~ 12 ft bgs
15						End of Log	15	
20								

Boring Number: IS26

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 10:00 to 10:20

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	1	MC	80	NA		**Silty Sand (SM)** Silty very fine sand with traces of clay, SM, brown-tan-orange, moist, medium density, roots	0 -5	PID= 0.0 ppm
5	2	MC	100	NA		**Clay (CL-CH)** Clay, CL-CH, tan-orange, moist, medium stiff to stiff, high plasticity, orange silty clasts about pea size some ~ 45 degree contact with between clay and sandy clay ~1-2 inches thick	5	PID= 0.0 ppm
10	3	MC	100	NA			-13	Samples collected MR04-IS26-12-14-07C
						Sandy Clay (SC-CL) Very fine sandy clay, SC-CL, dark grey, soft, medium plasticity	13 -15	
15						End of Log	15	
20								

CH2MHILL

Boring Number: IS27

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 09:20 to 09:33

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	1	MC	80	NA		**Silty Sand (SM-SP)** Silty very fine sand, SM-SP, brown, dry to moist, loose to medium density, roots	0 -5	PID=3.2 ppm
5	2	MC	90	NA		**Silty Sand (SM-SP)** Silty very fine sand, SM-SP, tan, dry to moist, loose to medium density, roots	5 -7	PID=4.2 ppm
						Clay (CL-CH) Clay, CL-CH, tan, moist, stiff to very stiff, medium to high plasticity	7 -10	Samples collected MR04-IS27-9-11-07C
10	3	MC	70	NA		**Silty Sand (SM-SP)** Silty very fine sand, SM-SP, brown, dry to moist, loose to medium density	10 -11	PID=10.18
						Sand (SP) Very fine to fine sand with some clay starting at 11.5 ft bgs, SP, tan-brown, saturated at 11.5 ft bgs, medium density, low plasticity	11 -15	
15						End of Log	15	
20								

CH2MHILL

Boring Number: IS28

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/11/07 08:32 to 09:00

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Silty Sand (SM)** Very fine sandy silt, SM, brown, moist, soft to medium stiff, low plasticity	0 / -1	"Rejuice" system with compressed N2 around 2 ft bgs
	1	MC	40	NA		**Clayey Sand (SC)** Very fine clayey sand, SC, tan-orange, moist, medium stiff, medium plasticity	1 / -5	PID=0.0 ppm
5						**Fine Sand (SP)** Fine sand, SP, tan-orange, moist, loose, low plasticity	5 / -6	
	2	MC	100	NA		**Clay (CL-CH)** Clay, CL-CH, orange-tan, moist, medium stiff to stiff, medium to high plasticity	6 / -11	Sample collected MR04-IS28-9-11-07C
10						**Medium Sand (SW)** Medium Sand, SW, tan-orange, saturated at 11.5 ft bgs, loose, low plasticity	11 / -14	PID=0.0ppm
	3	MC	100	NA		**Clay (CL)** Clay with traces of very fine silt/sand, CL, dark grey, soft, medium plasticity	14 / -15	
15						End of Log	15	
20								

Boring Number: IS29

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/10/07 17:17 to 17:32

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	1	MC	30	NA		**Clayey Silt (CL-SC)** Clay with clayey silt between 1.25 to 1.5 ft bgs, CL-SC, tan, moist	0	PID=0.0 ppm Hit refusal at 5.5 ft bgs Moved north towards road 2 ft
5	2	MC	100	NA		**Medium Sand (SW)** Medium sand, SW, tan-grey, moist, loose, low plasticity	-6 6 -7	
						Clay (CL) Clay, CL, tan-grey, moist, stiff, medium plasticity	7 -10	PID=0.0ppm
10	3	MC	70	NA		**Silty Sand to Medium Sand (SM-SW)** Silty sand to medium sand, SM-SW, brown-grey, moist, loose, low plasticity	10	PID= 0.9 ppm
						Clay (CL) Clay, CL, grey-brown, wet, medium stiff, medium plasticity	-14	Sample Collected MR04-IS29-10-12-07C
15						**Clayey Sand (SC)** Fine to medium clayey sand, SC, grey-brown, saturated, soft	14 -15 15	
						End of Log		
20								

Boring Number: IS30

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/10/07 16:24 to 16:35

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	1	MC	80	NA		**Fine Sand (SP)** Very fine to fine sand with traces of silt, SP, tan, loose, low plasticity	0 / -1	
						Fine Sand (SP) Very fine to fine sand with traces of silt, SP, tan, moist, medium density, low plasticity	1 / -3	PID=0.0 ppm
						Clayey Sand (SC) Clayey very fine sand, SC, orange-tan, moist, dense/stiff, medium plasticity	3 / -5	
5	2	MC	100	NA		**Silty Sand (SM)** Silty very fine sand with traces of clay, SM, tan-light grey, moist, dense, medium plasticity	5 / -7	PID=0.0 ppm
						Medium Sand (SW) Medium to coarse sand, SW, tan-orange, loose, low plasticity	7 / -8	
						Clay (CL) Clay, CL, tan, moist, medium stiff, medium plasticity	8 / -10	
10	3	MC	100	NA		**Clayey Sand (SC)** Clayey fine sand, SC, orange-tan, moist to wet, stiff, medium plasticity	10 / -12	Sample collected MR04-IS30-10-12-07C
						Fine to Medium Sand (SP-SW) Very fine to medium sand with some clay, SP-SW, orange-tan, saturated at 12 ft bgs, medium stiff to loose	12 / -15	PID=0.0ppm
15						End of Log	15	
20								

Boring Number: IS31

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 13:45 to 14:10

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Silty Sand (SM-SP)** Very fine to fine silty sand with traces of clay, SM-SP, brown-tan, moist, loose to medium dense	0	
							-1 1	Hand auger to 5 ft bgs - wet at 5 ft. Take MC from 0-5 ft next to auger hole.
	1	MC	60	NA		**Silty Clay (SC)** Silty clay, SC, orange-tan, moist to wet, soft, medium plasticity		1 to 2 foot drop off next to boring
							-4 4	
						Silty Sand (SM-SP) Very fine to fine silty sand, SM-SP, grey-tan, wet at 5 ft bgs, loose to medium dense, low plasticity	-5 5	Sample collected MR04-IS31-2-4-07C
						End of Log		
5								
10								
15								
20								

Boring Number: IS32

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 13:03 to 13:35

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM-SP)** Silty very fine sand with trace clay and orange staining, SM-SP, dark brown-tan, moist, loose to medium density, low plasticity	0 -5	Hand auger - hit gravel at 3 ft bgs. PID=0.0 ppm
5	1	MC	100	NA		**Silty Clay (SC)** Clayey very fine to fine sand, SC, orange, moist, medium dense, low plasticity	5 -8	PID=0.0 ppm
10	2	MC	100	NA		**Clay (CL-CH)** Clay, CL-CH, tan-orange, moist, medium density, low plasticity	8 -15	Samples collected MR04-IS32-12-14-07C and MR04-IS32D-12-14-07C PID=0.0 ppm
15						**Silty Clay (SC)** Clayey very fine to fine sand, SC, orange, saturated, soft to medium density, low plasticity	15	
						End of Log		
20								

Boring Number: IS33

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 10:50 to 11:10

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM)** Silty very fine to fine sand with traces of clay, SM-SP, orange-tan, moist	0 -5	Hand auger to 5 ft bgs PID=0.0 ppm
5	1	MC	100	NA		**Sandy Clay (SC)** Very fine sandy clay, SC, tan-orange, moist to wet, soft, low-medium plasticity **Clay (CL-CH)** Clay with traces of silt, CL-CH, grey-orange, moist to wet, stiff, medium to high plasticity	5 -6 6 -9	PID=0.0 ppm
10	2	MC	100	NA		**Sandy Clay (SC)** Very fine sandy clay with hard orange pea size clasts, SC, tan-orange, moist to wet, soft, low-medium plasticity **Clay (CL-CH)** Clay with traces of silt with hard lamination at 12 feet of orange/red clay, CL-CH, grey-orange, saturated at 14.5 ft bgs, stiff, medium to high plasticity	9 -11 11 -15	PID=0.0 ppm Sample collected MS04-IS33-12-14-07C
15						End of Log	15	
20								

Boring Number: IS34

Client: NAVFAC
Project: Knox Trailer Park
Location: MCB Camp Lejeune
Project Number: 360362

Driller: American Environmental, Inc.
Drilling Method: Geoprobe 6610DT
Sampling Method: Macrocore
Logged by: E. Must
Start/Finish Date: 9/12/07 10:25 to 10:45

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	NA	HA	NA	NA		**Silty Sand (SM-SP)** Silty very fine to fine sand, SM-SP, dark brown-tan, dry to moist, loose, low plasticity, roots	0 -5	Hand auger to 5 ft bgs. PID=0.0 ppm
5	1	MC	100	NA		**Sandy Clay (SC)** Very fine sandy clay, SC, tan-orange, moist, medium stiff, medium plasticity	5 -11	PID=0.0 ppm
10	2	MC	100	NA		**Silty Clay (SC)** Silty clay, SC, medium stiff, medium to high plasticity	11 -12	
						Silty Sand (SM) Very fine sandy clay with hard orange pea size clasts, SC, tan-orange, moist to wet, soft, low-medium plasticity	12 -13	Sample collected MR04-IS34-13-15-07C
15						**Silty Clay (SC)** Silty clay, SC, medium stiff, medium to high plasticity	13 -15	
						End of Log	15	
20								

Well Completion Diagrams

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW01	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

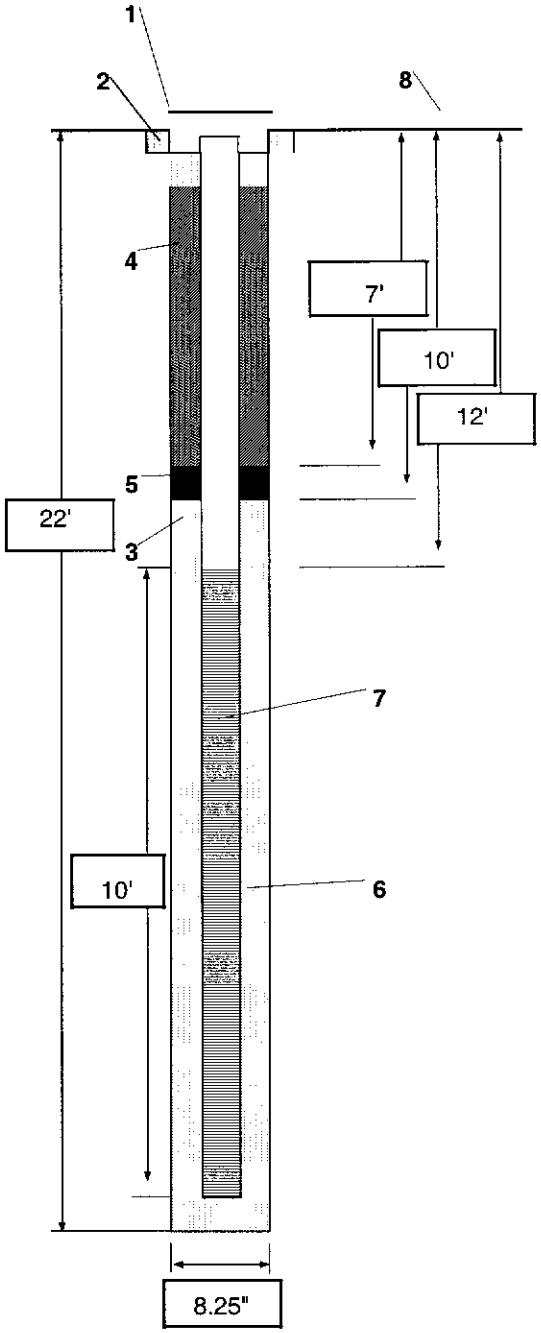
PROJECT : Knox Trailer Park Drilling — LOCATION : North end of site by road.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 8.25-inch OD HSA

Northing: 12619023.42 Easting: 922455.58 — Ground Elevation: 19.61 — Top of Casing Elevation: 22.50

FIELD OBSERVER: Bret Rahe — START : 3/17/2006 — END : 3/17/2006



1- **PROTECTIVE CSG**
Material/Type:
Diameter: Water Tight Seal: Y / N
Depth BGS: Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' with protective guard posts

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 12-ft bgs (15-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 7-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 250-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 12 - 22-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW02 SHEET 1 OF 1

WELL COMPLETION DIAGRAM

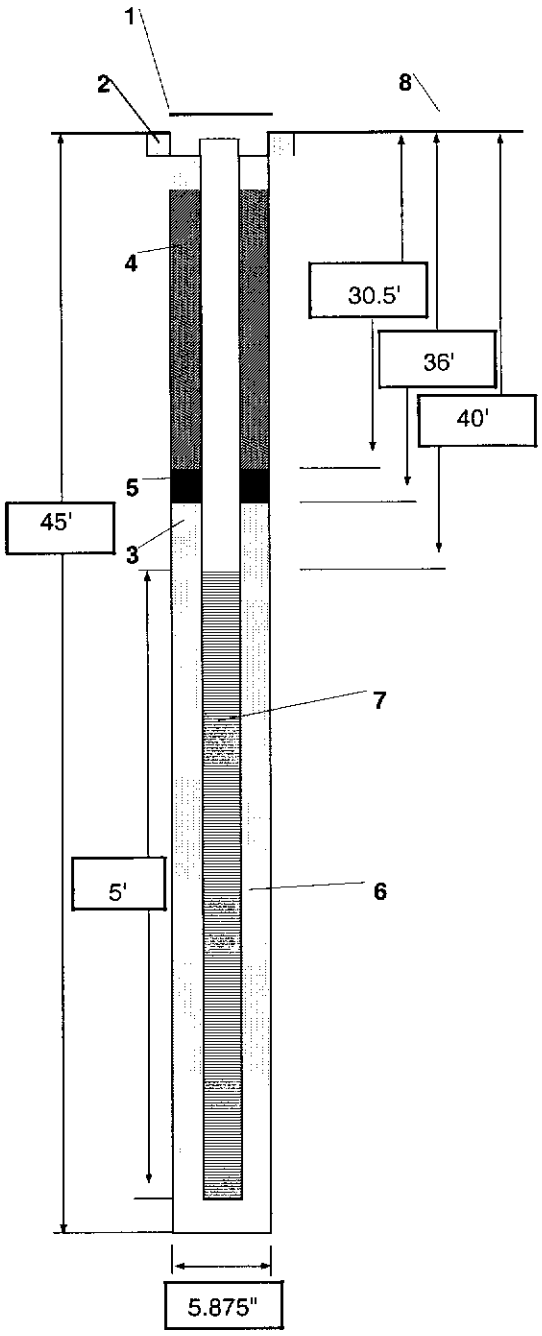
PROJECT : Knox Trailer Park Drilling — LOCATION : North end of site along Camp Knox Blvd.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 5 7/8-inch roller bit; mud rotary

Northing: 12619024.58 Easting: 922450.64 Ground Elevation: 19.56 Top of Casing Elevation: 22.40

FIELD OBSERVER: Bret Rahe START : 3/14/2006 END : 3/19/2006



1- **PROTECTIVE CSG**
Material/Type: PVC
Diameter: 6-inch Water Tight Seal: Y / N
Depth BGS: 24-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' with protective guard posts

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 40-ft bgs (43-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 30.5-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 100-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 5-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 40 - 45-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW03	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

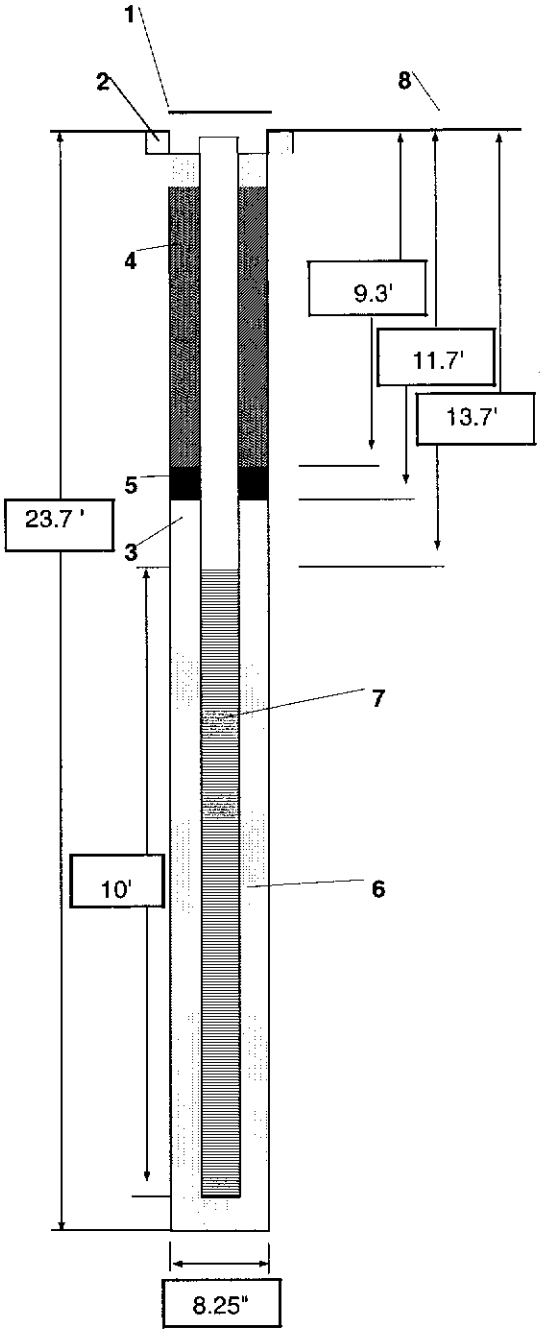
PROJECT : Knox Trailer Park Drilling — LOCATION : In wooded area along western margin of the site.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: Ingersoll Rand A-200 w/ 8.25-inch OD HSA

Northing: 12618419.48 Easting: 921598.68 Ground Elevation: 19.72 Top of Casing Elevation: 22.41

FIELD OBSERVER: STP START : 3/16/2006 END : 3/16/2006



TL= 26.70-ft BTOC
DTW=19.02-ft BTOC

1- **PROTECTIVE CSG**
Material/Type: Steel
Diameter: 4-inch Water Tight Seal: Y / N
Depth BGS: 2-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2-ft x 2-ft concrete pad

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 13.7-ft bgs (16.7-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 1 - 9.3-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 300-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 13.7 - 23.7 -ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: 50 minutes
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW04	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

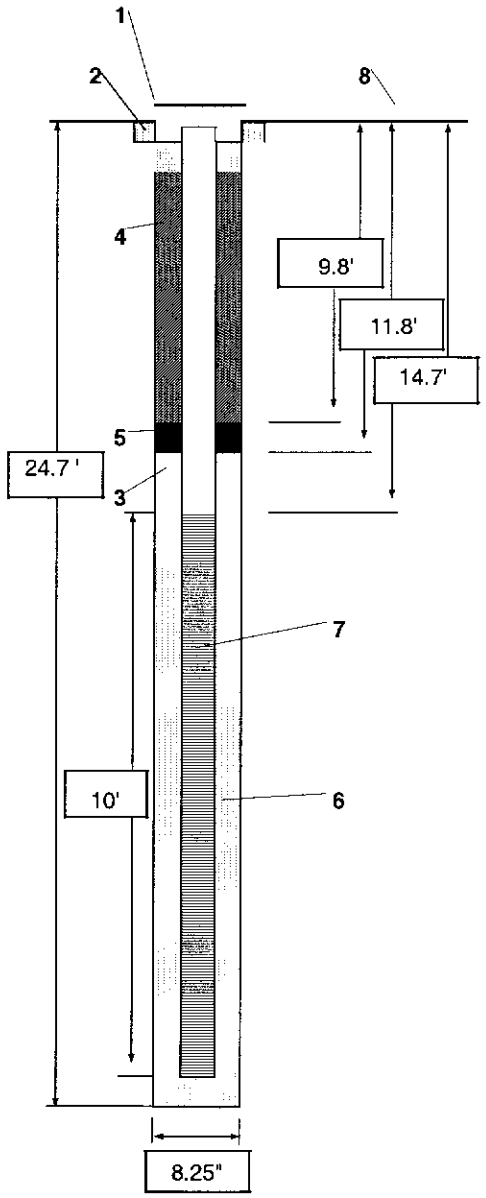
PROJECT : Knox Trailer Park Drilling — LOCATION : In wooded area east of Camp Knox Rd.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: Ingersoll Rand A-200 w/ 8.25-inch OD HSA

Northing: 12618405.00 Easting: 923048.36 — Ground Elevation: 22.22 — Top of Casing Elevation: 24.84

FIELD OBSERVER: STP — START : 3/16/2006 — END : 3/16/2006



TL= 27.64-ft BTOC
DTW=19.92-ft BTOC

1- **PROTECTIVE CSG**
Material/Type: Steel
Diameter: 4-inch Water Tight Seal: Y / N
Depth BGS: 2-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2-ft x 2-ft concrete pad

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 14.7-ft bgs (16.7-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 1 - 11.8-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 350-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 14.7 - 24.7 -ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: 60 minutes
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW05 SHEET 1 OF 1

WELL COMPLETION DIAGRAM

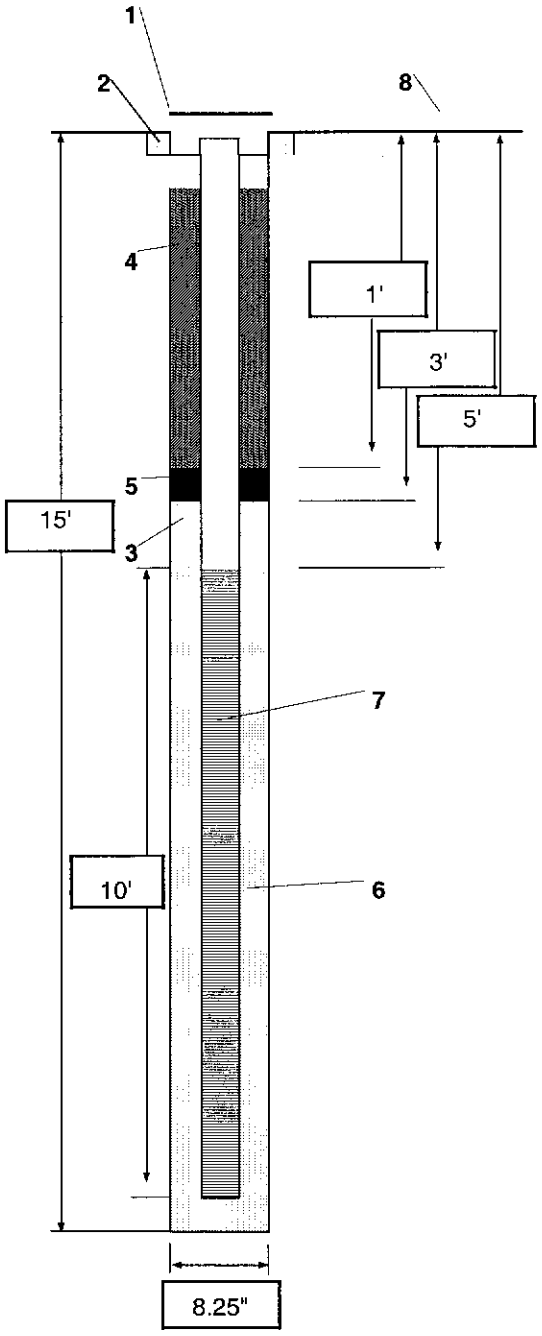
PROJECT : Knox Trailer Park Drilling — LOCATION : North end of Baltimore Rd.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 8.25-inch OD HSA

Northing: 12617642.76 Easting: 923071.56 Ground Elevation: 20.01 Top of Casing Elevation: 22.76

FIELD OBSERVER: Bret Rahe START : 3/15/2006 END : 3/15/2006



1- **PROTECTIVE CSG**
Material/Type:
Diameter: Water Tight Seal: Y / N
Depth BGS: Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size:

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 5-ft bgs (8-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 1-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 250-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 5 - 15-ft
Sump: 4-inch cap

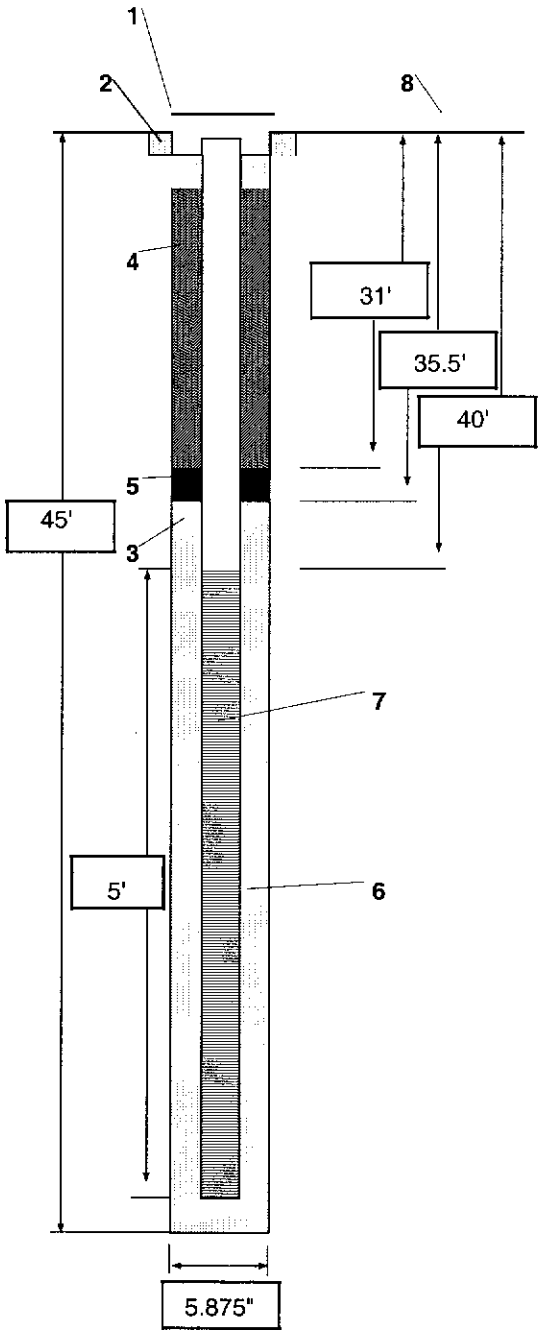
8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW06	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Knox Trailer Park Drilling		LOCATION : End of Baltimore Rd.	
DRILLING CONTRACTOR : Parrat- Wolff			
DRILLING METHOD AND EQUIPMENT USED: CME w/ 5 7/8-inch roller bit; mud rotary			
Northing: 12617638.85	Easting: 923080.37	Ground Elevation: 20.11	Top of Casing Elevation: 22.92
FIELD OBSERVER: Bret Rahe		START : 3/14/2006	END : 3/17/2006



1- **PROTECTIVE CSG**
Material/Type: PVC
Diameter: 6-inch Water Tight Seal: Y / N
Depth BGS: 25-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' with protective guard posts

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 40-ft bgs (43-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 31-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 100-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 5-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 40 - 45-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW07 SHEET 1 OF 1

WELL COMPLETION DIAGRAM

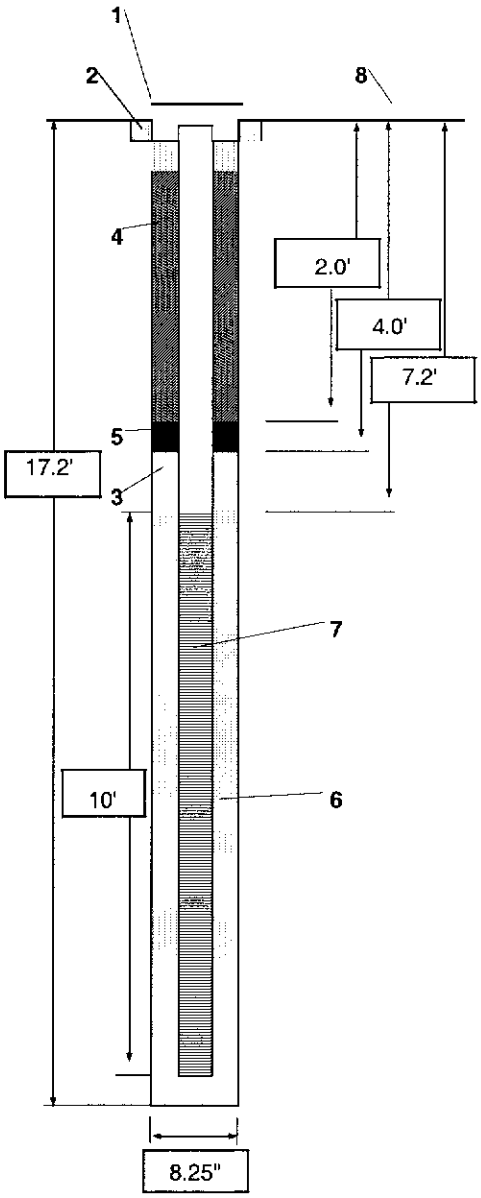
PROJECT : Knox Trailer Park Drilling — LOCATION : Corner of Boston and Daytona Rds.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: Ingersoll Rand A-200 w/ 8.25-inch OD HSA

Northing: 12617481.89 Easting: 922475.29 — Ground Elevation: 21.94 — Top of Casing Elevation: 24.66

FIELD OBSERVER: STP — START : 3/17/2006 — END : 3/17/2006



TL= 22.50-ft BTOC
DTW=-12.50-ft BTOC

1- **PROTECTIVE CSG**
Material/Type: Steel
Diameter: 4-inch Water Tight Seal: Y / N
Depth BGS: 2-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2-ft x 2-ft concrete pad

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 10.7-ft bgs (16.7-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 1 - 2 -ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 300-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 7.2 - 17.2-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: 30 minutes
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW08 SHEET 1 OF 1

WELL COMPLETION DIAGRAM

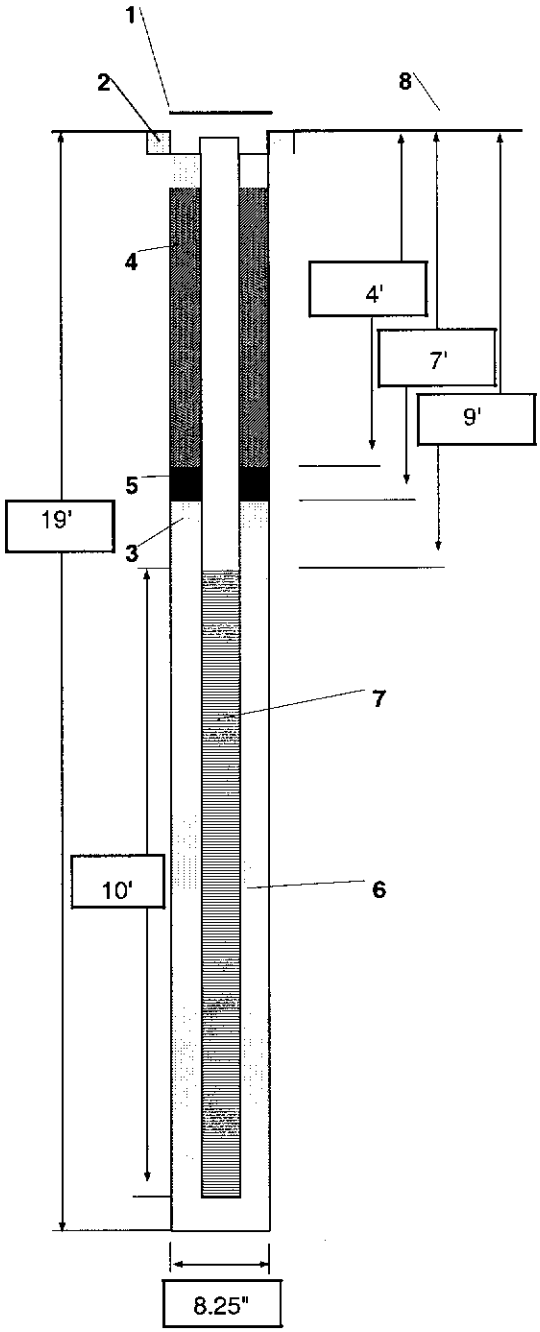
PROJECT : Knox Trailer Park Drilling — LOCATION : Near intersection of Omaha and Atlanta

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 8.25-inch OD HSA

Northing: 12617503.45 Easting: 921240.64 Ground Elevation: 9.43 Top of Casing Elevation: 12.32

FIELD OBSERVER: Bret Rahe START : 3/15/2006 END : 3/15/2006



1- **PROTECTIVE CSG**
Material/Type:
Diameter: Water Tight Seal: Y / N
Depth BGS: Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size:

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 12-ft bgs (15-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 4-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 275-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 9 - 19-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW09	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

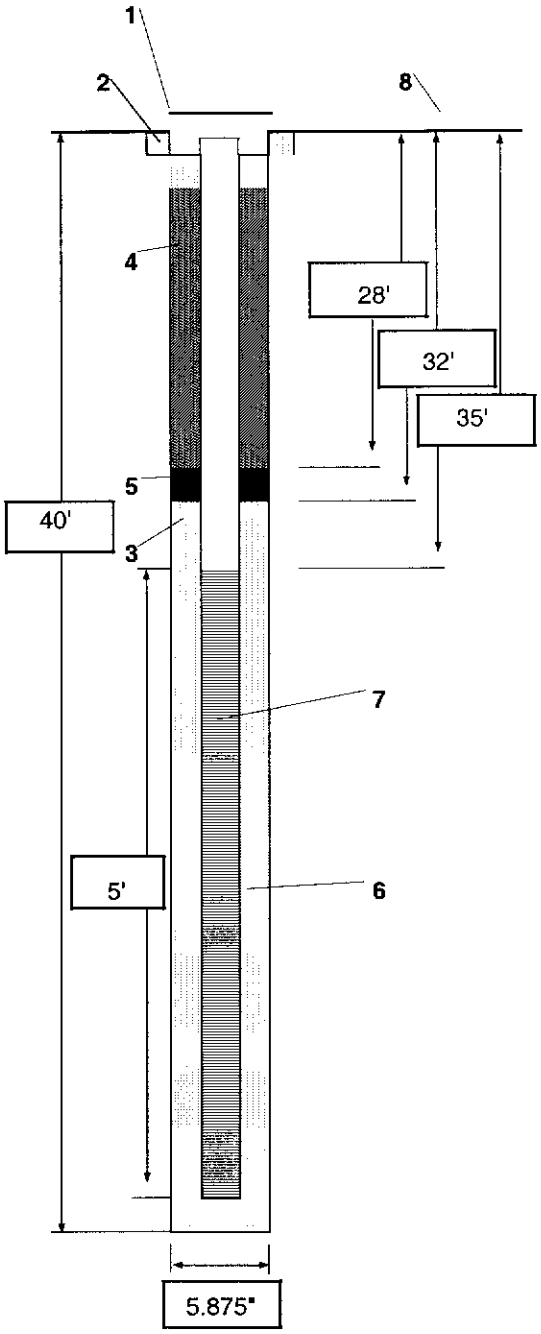
PROJECT : Knox Trailer Park Drilling — LOCATION : End of Baltimore Rd.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 5 7/8-inch roller bit; mud rotary

Northing: 12617497.77 Easting: 921240.57 — Ground Elevation: 9.34 — Top of Casing Elevation: 12.23

FIELD OBSERVER: Bret Rahe — START : 3/16/2006 — END : 3/18/2006



1- **PROTECTIVE CSG**
Material/Type: PVC
Diameter: 6-inch — Water Tight Seal: Y / N
Depth BGS: 20-ft — Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' with protective guard posts

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 35-ft bgs (38-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 28-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 100-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 5-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 35 - 40-ft
Sump: 4-inch cap

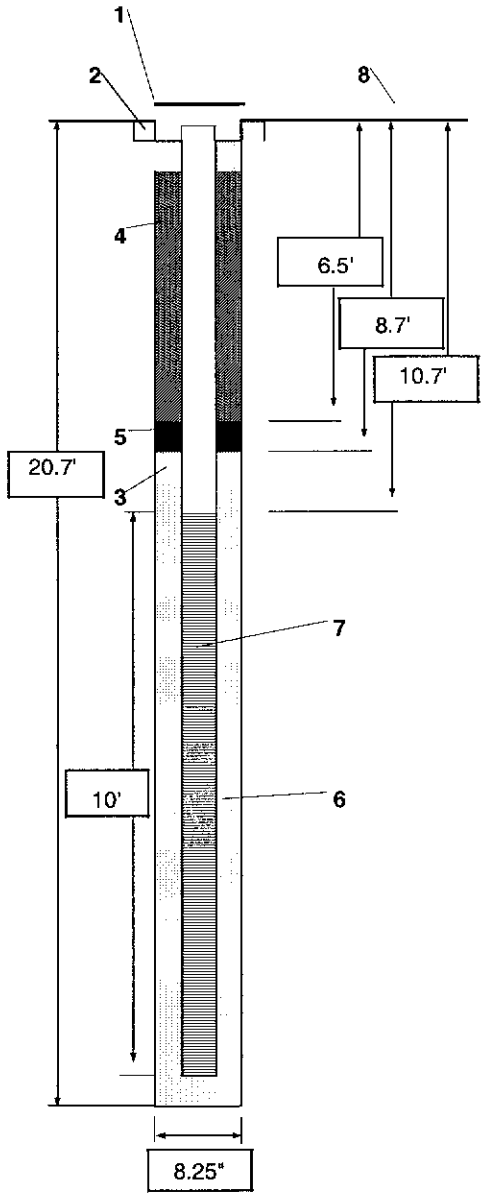
8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW10	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Knox Trailer Park Drilling		LOCATION : South end of Portland Court Rd.	
DRILLING CONTRACTOR : Parrat- Wolff			
DRILLING METHOD AND EQUIPMENT USED: Ingersoll Rand A-200 w/ 8.25-inch OD HSA			
Northing: 12616742.67	Easting: 921844.22	Ground Elevation: 14.05	Top of Casing Elevation: 16.68
FIELD OBSERVER: STP		START : 3/17/2006	END : 3/17/2006



TL= 23.64-ft BTOC
DTW=16.63-ft BTOC

1- **PROTECTIVE CSG**
Material/Type: Steel
Diameter: 4-inch Water Tight Seal: Y / N
Depth BGS: 2-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2-ft x 2-ft concrete pad

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 10.7-ft bgs (16.7-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 1 - 6.5-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 300-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 10.7 - 20.7-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: 40 minutes
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW11	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

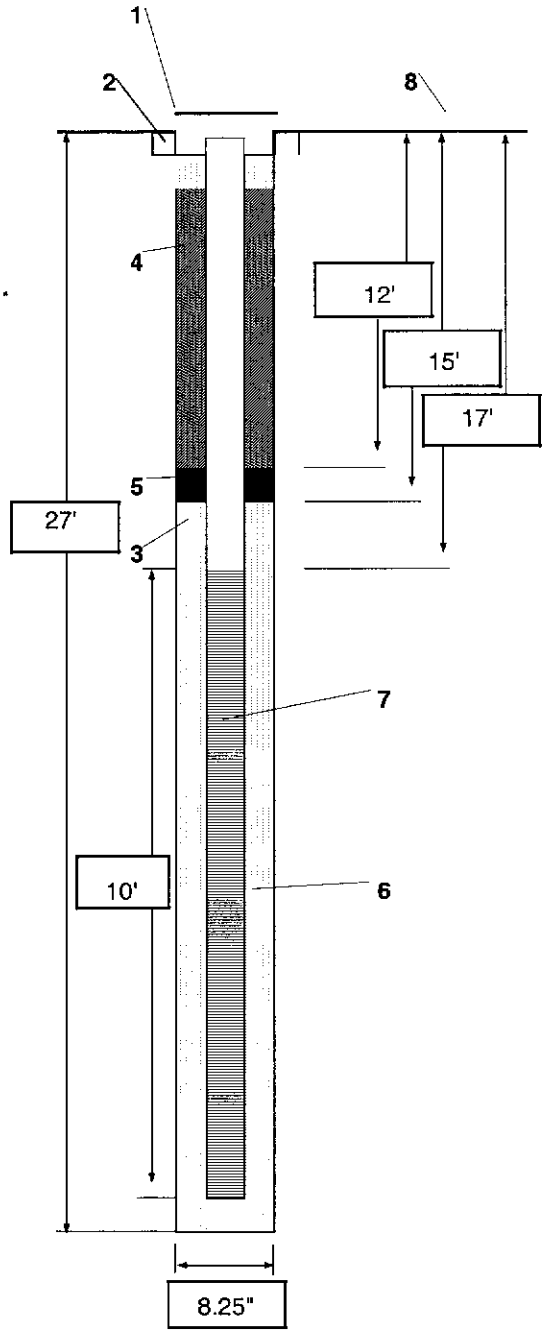
PROJECT : Knox Trailer Park Drilling — LOCATION : Near intersection of Omaha and Atlanta

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 8.25-inch OD HSA

Northing: 12616934.28 Easting: 922907.40 Ground Elevation: 19.24 Top of Casing Elevation: 18.86

FIELD OBSERVER: Bret Rahe START : 3/15/2006 END : 3/15/2006



1- **PROTECTIVE CSG**
Material/Type:
Diameter: Water Tight Seal: Y / N
Depth BGS: Weep Hole: Y / N

2- **SURFACE PAD**

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 12-ft bgs (15-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 12-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 250-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 17 - 27-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW12	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

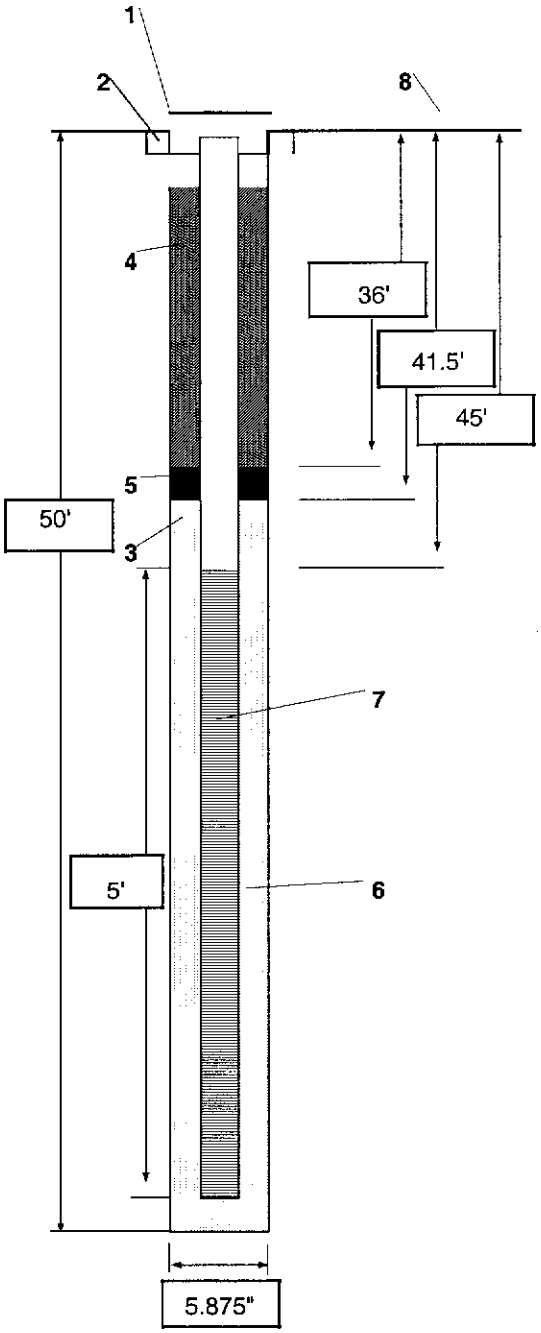
PROJECT : Knox Trailer Park Drilling — LOCATION : Near intersection of Omaha and Atlanta

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 5 7/8-inch roller bit; mud rotary

Northing: 12616929.94 Easting: 922905.34 Ground Elevation: 19.01 Top of Casing Elevation: 18.59

FIELD OBSERVER: Bret Rahe START : 3/16/2006 END : 3/18/2006



1- **PROTECTIVE CSG**
Material/Type: PVC
Diameter: 6-inch Water Tight Seal: Y / N
Depth BGS: 28-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' flush mount

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 45-ft bgs (48-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 36-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 125-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 5-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 45 - 50-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW13	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

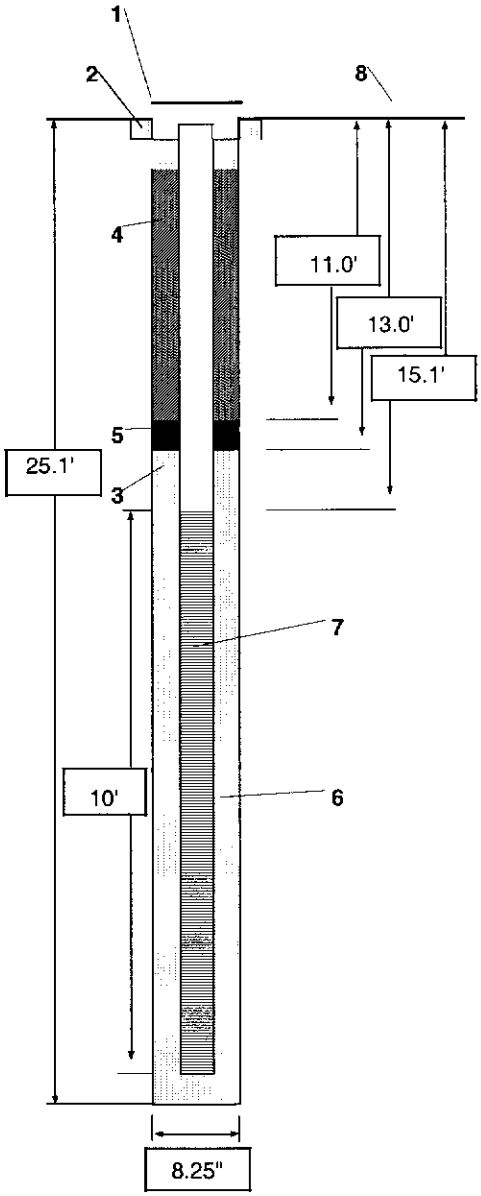
PROJECT : Knox Trailer Park Drilling — LOCATION : About 600-ft west of creek on Boston Rd.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: Ingersoll Rand A-200 w/ 8.25-inch OD HSA

Northing: 12616894.81 Easting: 923593.20 Ground Elevation: 19.29 Top of Casing Elevation: 21.93

FIELD OBSERVER: STP START : 3/16/2006 END : 3/16/2006



TL= 28.02-ft BTOC
DTW=21.20-ft BTOC

1- **PROTECTIVE CSG**
Material/Type: Steel
Diameter: 4-inch Water Tight Seal: Y / N
Depth BGS: 2-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2-ft x 2-ft concrete pad

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 2.9-ft ags - 15.1-ft bgs (16.7-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 1 - 11.0-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 250-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 15.1 - 25.1 -ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: 60 minutes
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW14	SHEET 1 OF 1

WELL COMPLETION DIAGRAM

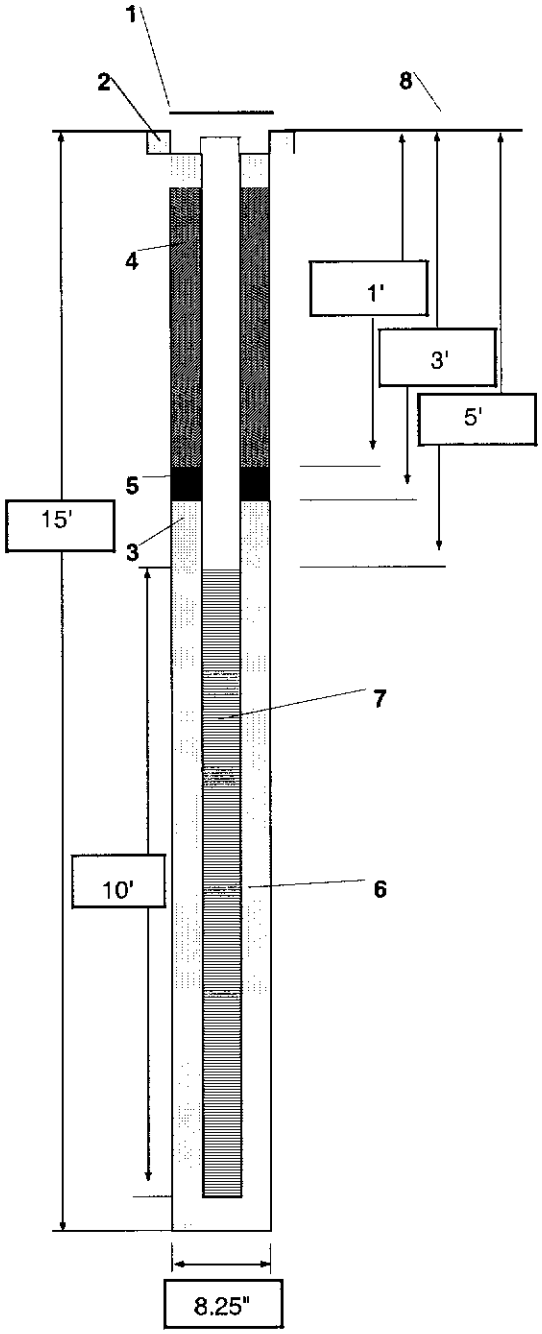
PROJECT : Knox Trailer Park Drilling — LOCATION : Adjacent to creek

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 8.25-inch OD HSA

Northing: 12616560.02 Easting: 924174.81 — Ground Elevation: 4.68 — Top of Casing Elevation: 7.49

FIELD OBSERVER: Bret Rahe — START : 3/15/2006 — END : 3/15/2006



1- **PROTECTIVE CSG**
Material/Type:
Diameter: Water Tight Seal: Y / N
Depth BGS: Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size:

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 5-ft bgs (8-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 1-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 225-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 10-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 5 - 15-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

CH2MHILL	PROJECT NUMBER 330966.SI.FI	WELL NUMBER MW15 SHEET 1 OF 1

WELL COMPLETION DIAGRAM

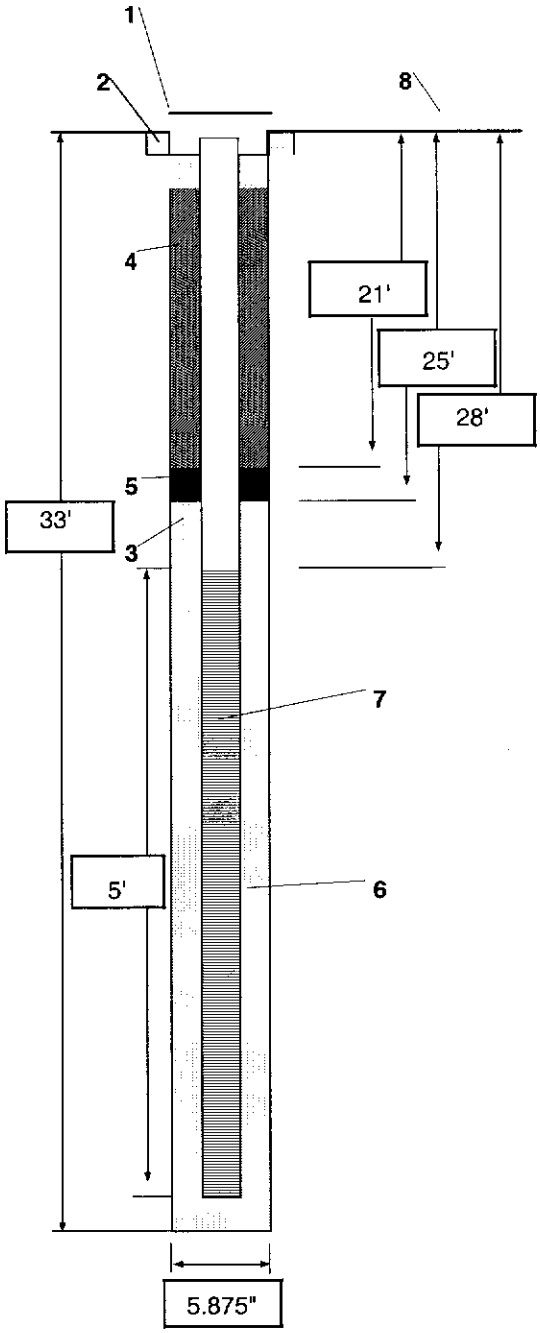
PROJECT : Knox Trailer Park Drilling — LOCATION : Adjacent to creek, southeast corner of site.

DRILLING CONTRACTOR : Parrat- Wolff

DRILLING METHOD AND EQUIPMENT USED: CME w/ 5 7/8-inch roller bit; mud rotary

Northing: 12616562.36 Easting: 924180.59 Ground Elevation: 4.22 Top of Casing Elevation: 7.09

FIELD OBSERVER: Bret Rahe START : 3/14/2006 END : 3/18/2006



1- **PROTECTIVE CSG**
Material/Type: PVC
Diameter: 6-inch Water Tight Seal: Y / N
Depth BGS: 25-ft Weep Hole: Y / N

2- **SURFACE PAD**
Composition & Size: 2' X 2' with protective guard posts

3- **RISER PIPE**
Type: PVC
Diameter: 2-inch
Total Length (TOC to TOS): 3-ft ags - 33-ft bgs (36-ft)

4- **GROUT**
Composition & Proportions: Portland Type I with bentonite gel and potable water.
Method of Placement: Direct pour/tremmie
Interval: 0 - 21-ft bgs.

CENTRALIZERS: No
Depth(s): ----

5- **SEAL**
Shur Seal, 3/8-inch bentonite chips
Source: Drillers Supply, Inc.

6- **FILTER PACK**
Type: Silica Sand
Amount Used: 125-lbs.
Method of Placement: Direct pour/tremmie
Source: Drillers Supply, Inc.
Gr. Size Dist.: 10/20

7- **SCREEN**
Type: PVC
Diameter: 2-inch
Length: 5-ft
Slot Size & Type: 0.010-inch machine slotted
Intervale BGS: 28 - 33-ft
Sump: 4-inch cap

8- **ELEVATION :**

DEVELOPMENT
Time: Approximately 1-hour
Method Used: Whale pump
Comments: See well development log

Well Construction Records

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3359

1. WELL CONTRACTOR:

NATHAN SWEETING
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-10

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 21.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 11.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 7.0	Ft.	PORTLAND	TREMIE
From 7.0	To 9.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 11.0	To 21.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 9.0	To 21.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
0	4.0	Light brown, dry SILT; some sand
4.0	8.0	Light brown, dry, SILT; some sand
8.0	12.0	Light brown, damp, SILT; some sand
12.0	16.0	Light brown, damp SILT; some tan, fine sand
16.0	20.0	Tan, fine SAND
20.0	24.0	Tan, fine SAND

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR 4-17-06 DATE

Nathan Sweeting
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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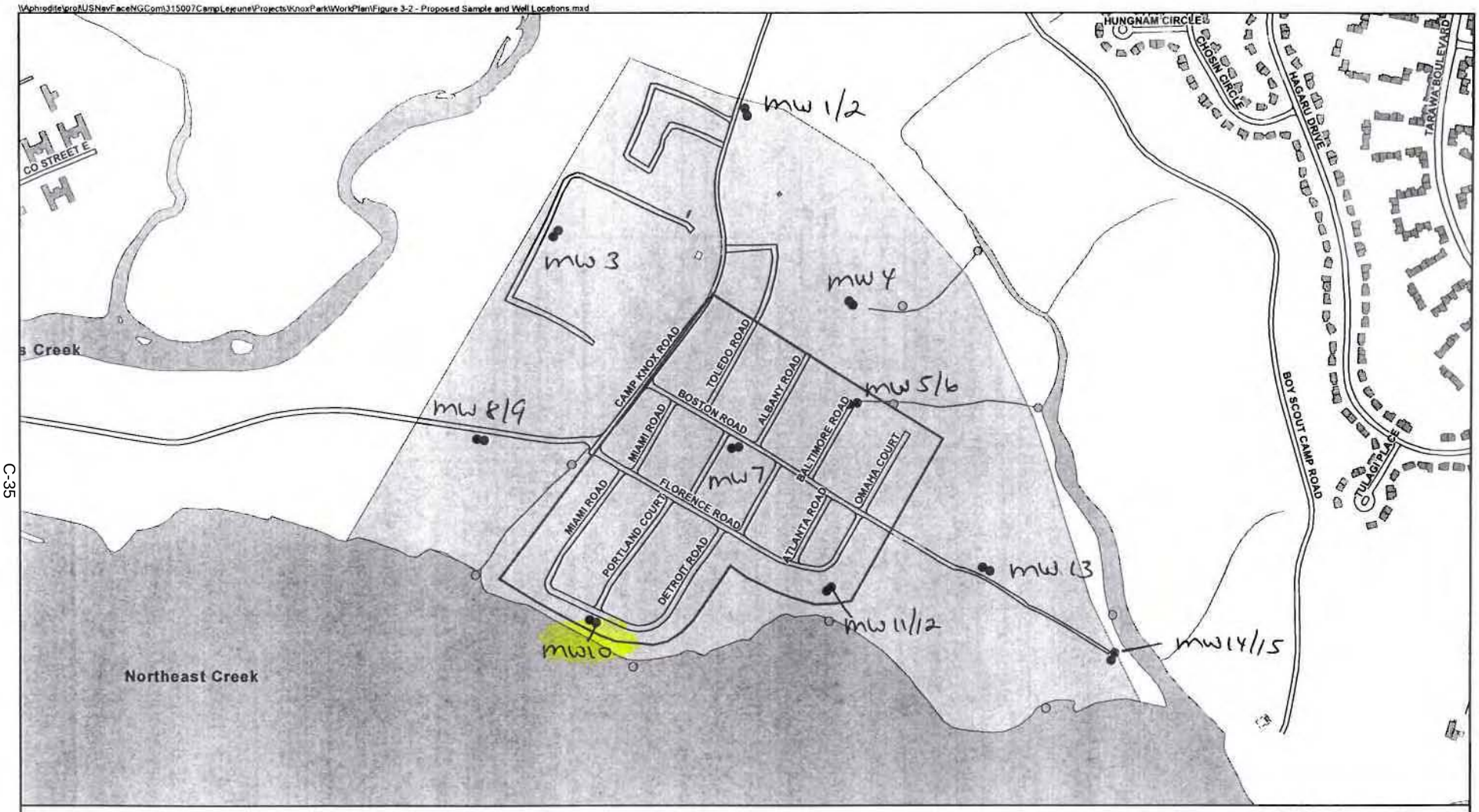
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3359

1. WELL CONTRACTOR:

NATHAN SWEETING
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-13

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 25.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 20.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

Depth			Diameter	Thickness/ Weight	Material
From 0	To 15.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

Depth			Material	Method
From 0	To 11.0	Ft.	PORTLAND	TREMIE
From 11.0	To 13.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

Depth			Diameter	Slot Size	Material
From 15.0	To 25.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

Depth			Size	Material
From 13.0	To 25.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
0	4.0	Gray, dry CLAY
4.0	8.0	Tan,dry, fine/medium SAND
8.0	12.0	Tan, damp, fine/medium SAND & SILT
12.0	16.0	Tan, damp, fine/medium SAND & SILT
16.0	20.0	Tan, damp, fine/medium SAND & SILT
20.0	24.0	Tan, damp SILT; some tan, wet sand
24.0	28.0	Tan, wet, fine SAND

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR 4-17-06 DATE

Nathan Sweeting
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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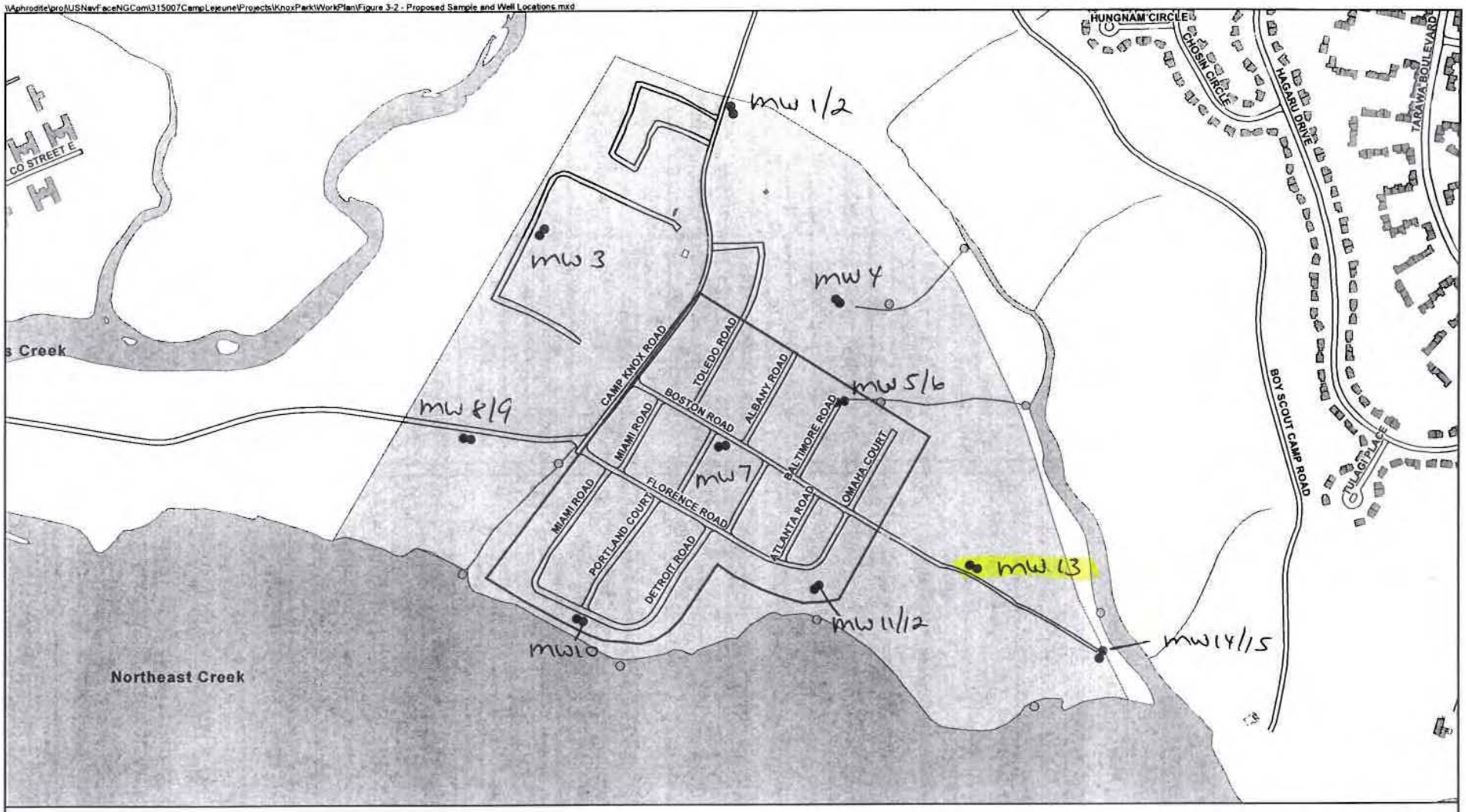
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-2

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/16-3/19/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 45.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 12.0' FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 24.0	Ft.	6"	SCH 40	PVC
From 0	To 40.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 30.5	Ft.	PORTLAND	TREMIE
From 30.5	To 36.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 40.0	To 45.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 36.0	To 45.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
35.0	37.0'	Tan, wet, medium dense, fine SAND & SILT
45.0	47.0	Gray, wet, soft SILT; some fine sand & shells

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis LeFever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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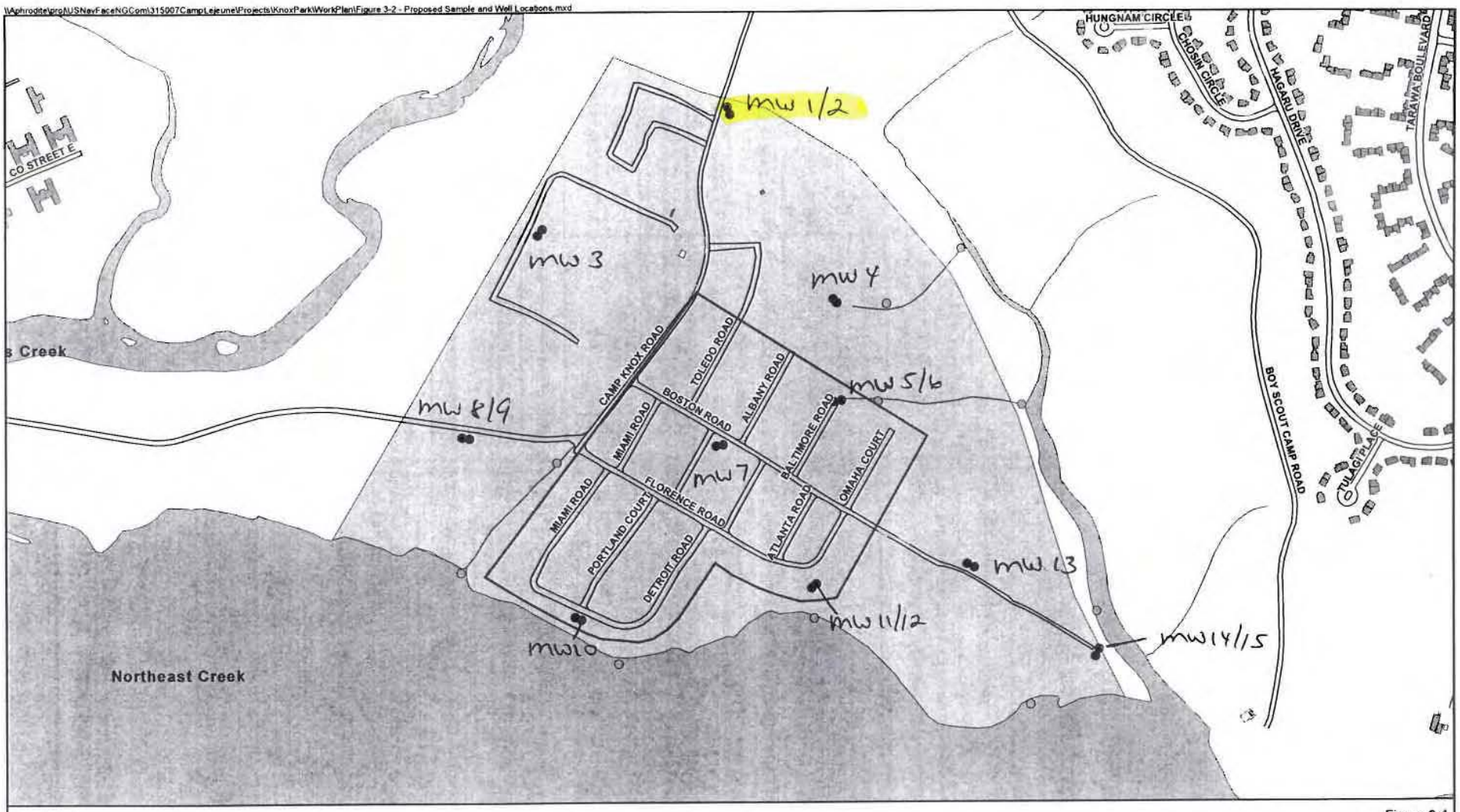
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-15

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/14-3/19/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 33.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 25.0	Ft.	6"	SCH 40	PVC
From 0	To 28.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 21.0	Ft.	PORTLAND	TREMIE
From 21.0	To 25.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 28.0	To 33.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 25.0	To 33.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
30.0	32.0'	Gray/green soft SILT; some fine sand

11. REMARKS:

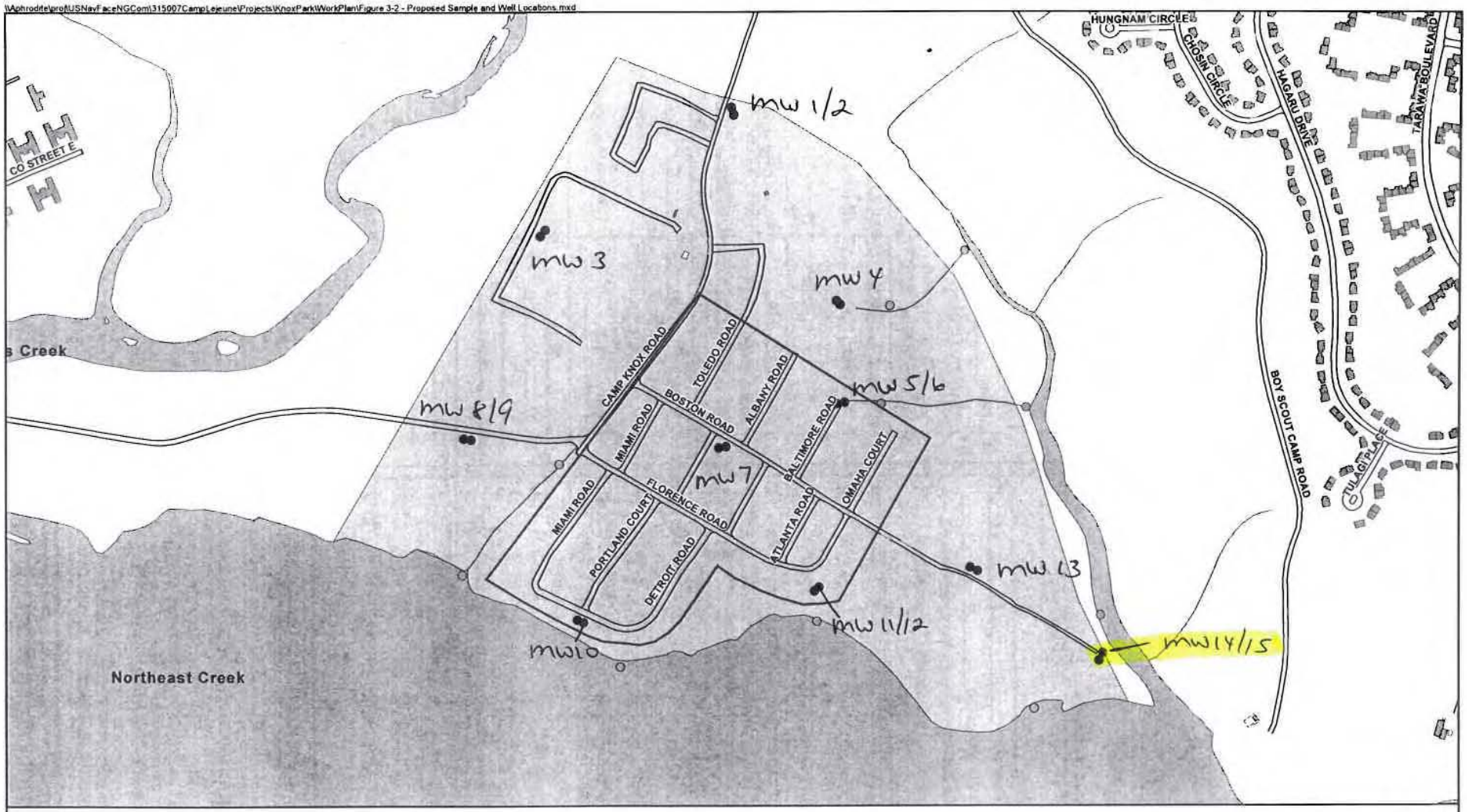
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis LeFever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis LeFever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-1

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/17/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 22.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 14.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 12.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 7.0	Ft.	PORTLAND	TREMIE
From 7.0	To 10.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 12.0	To 22.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 10.0	To 22.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
NO SAMPLES TAKEN		

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis LeFever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis LeFever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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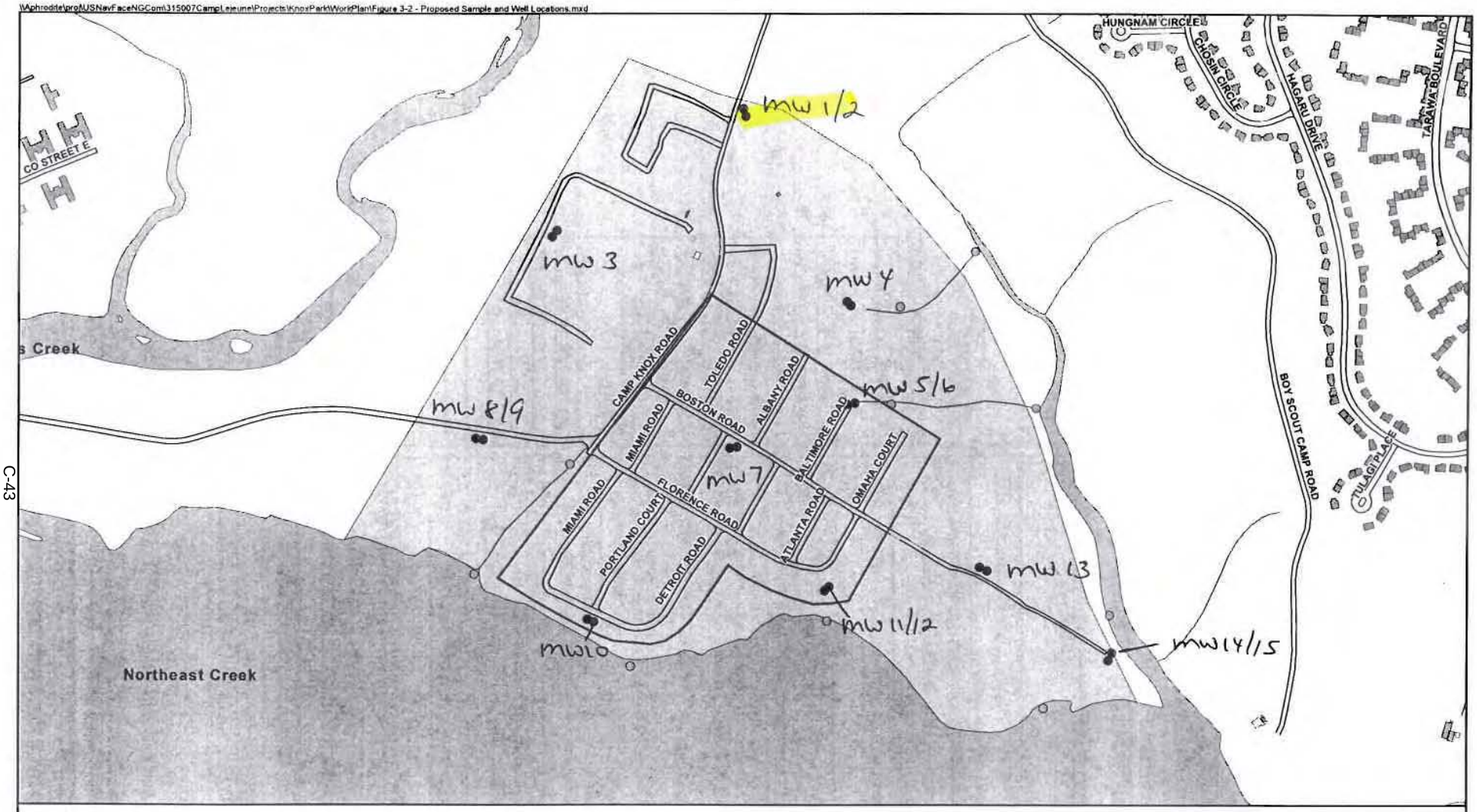

Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-5

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 15.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 6.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 5.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 1.0	Ft.	PORTLAND	TREMIE
From 1.0	To 3.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 5.0	To 15.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 3.0	To 15.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
NO SAMPLES TAKEN		

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis S Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis S Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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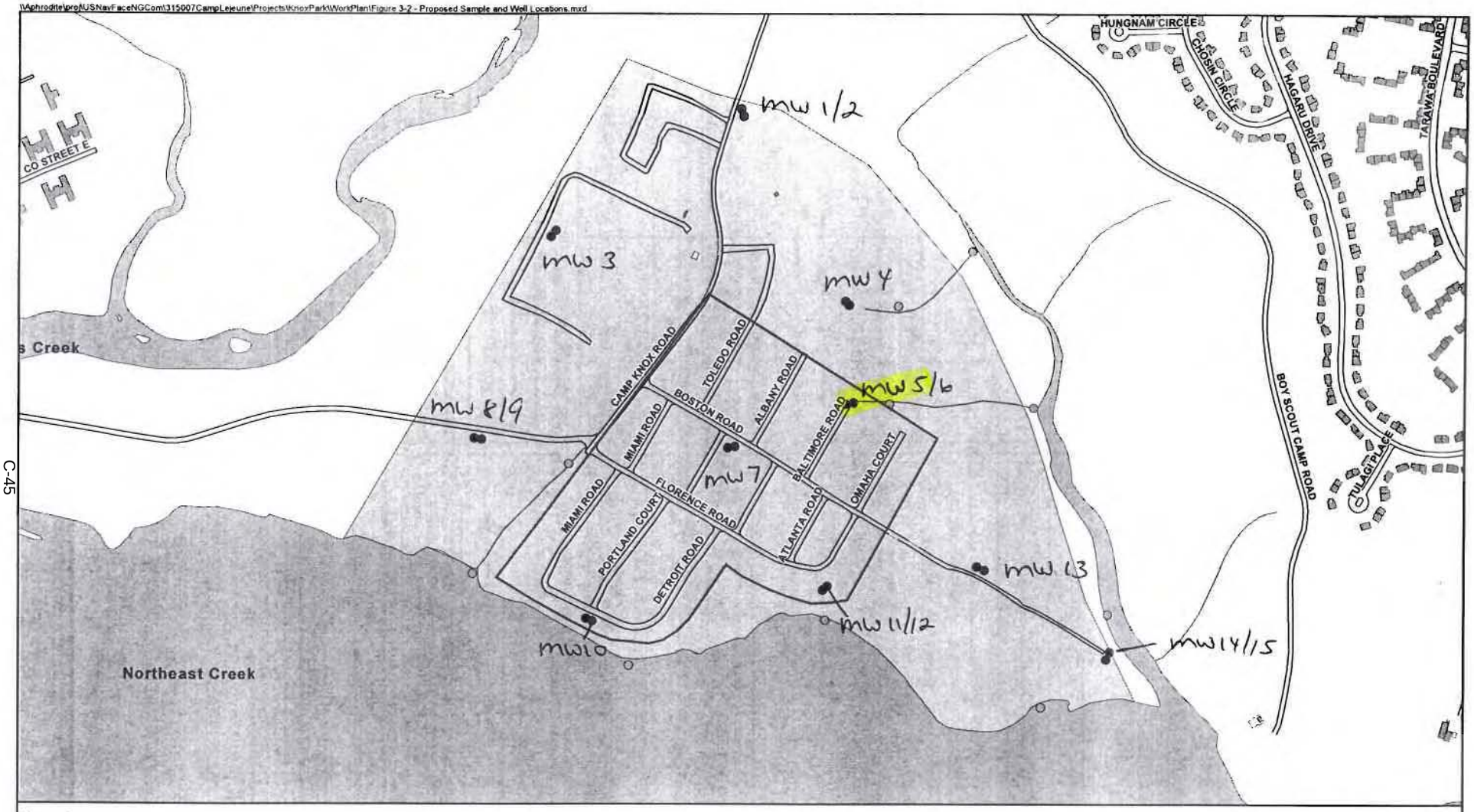


Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-8

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'
LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 19.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 8.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):
From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 9.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 4.0	Ft.	PORTLAND	TREMIE
From 4.0	To 7.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 9.0	To 19.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 7.0	To 19.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
NO SAMPLES TAKEN		

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

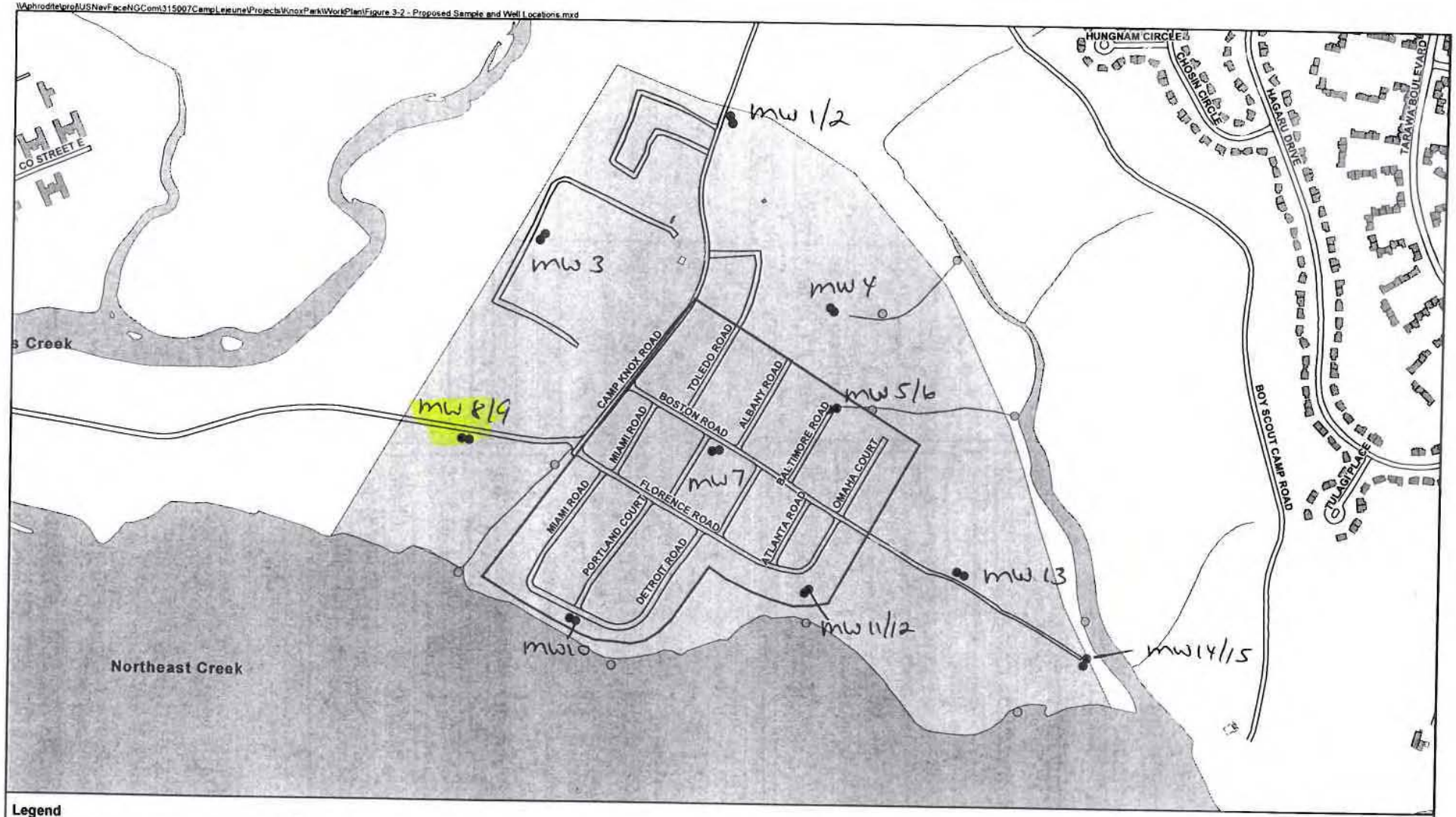
Lewis Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

\\Aphrodite\proj\USNavFaceNGCom\315007CampLejeune\Projects\KnoxPark\WorkPlan\Figure 3-2 - Proposed Sample and Well Locations.mxd



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-14

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 15.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 5.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 5.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 1.0	Ft.	PORTLAND	TREMIE
From 1.0	To 3.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 5.0	To 15.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 3.0	To 15.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
NO SAMPLES TAKEN		

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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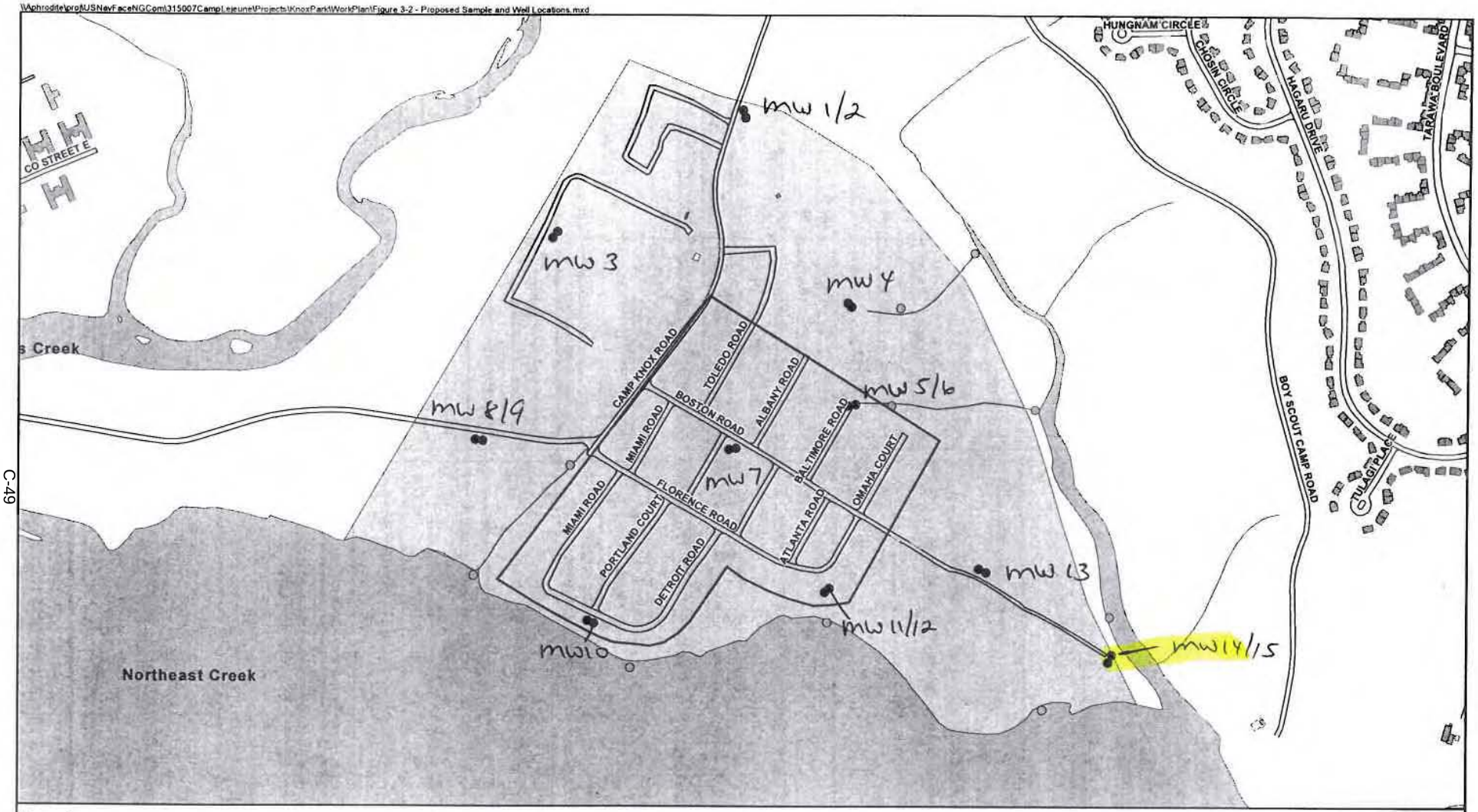

Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-11

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'
LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 27.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 18.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 17.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 12.0	Ft.	PORTLAND	TREMIE
From 12.0	To 15.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 17.0	To 27.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 15.0	To 27.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
NO SAMPLES TAKEN		

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis S Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis S Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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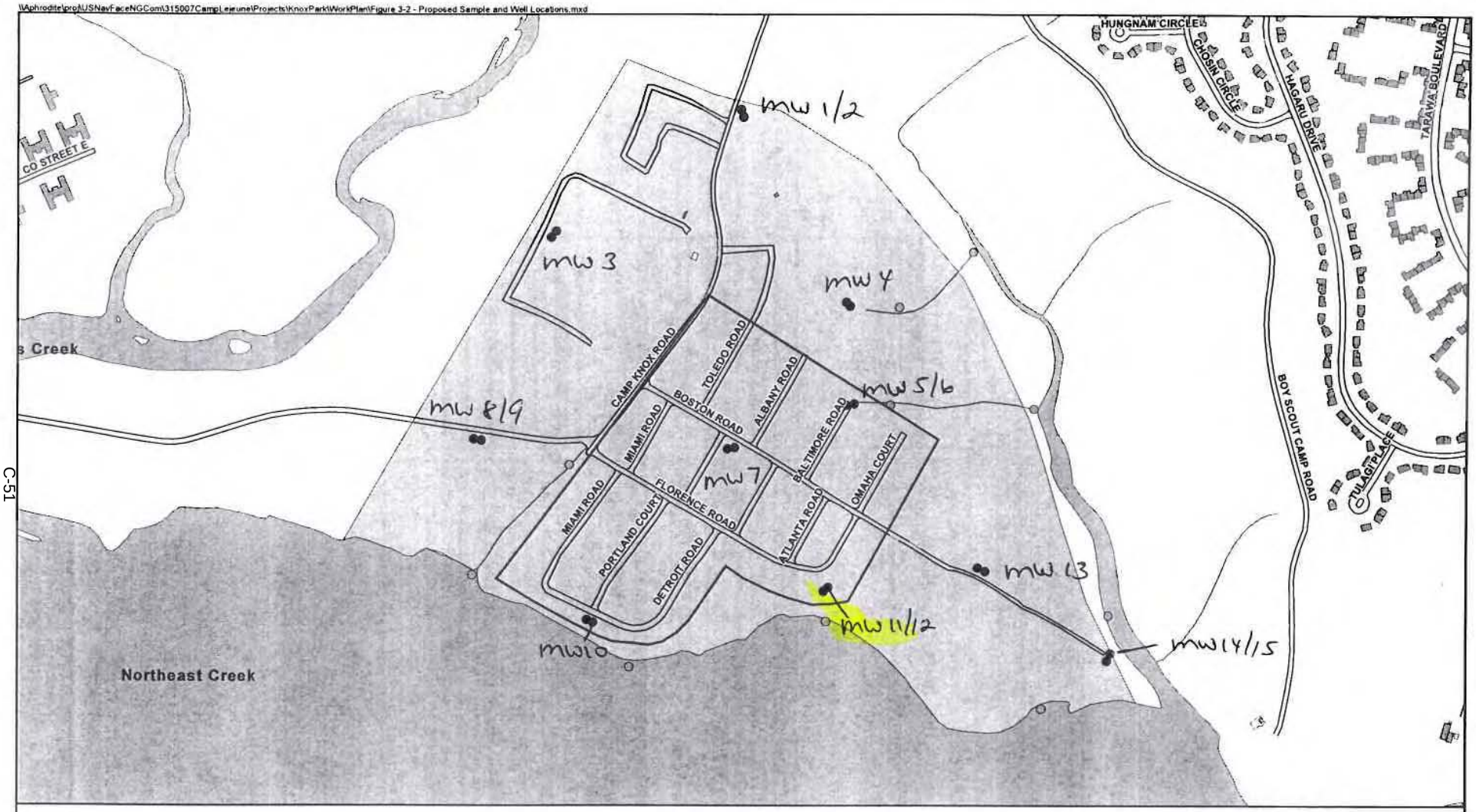


Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3359

1. WELL CONTRACTOR:

NATHAN SWEETING
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-4

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

(_____)-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 25.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To___ From___ To___
From___ To___ From___ To___
From___ To___ From___ To___

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 10.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 11.0	Ft.	PORTLAND	TREMIE
From 11.0	To 13.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 10.0	To 25.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 13.0	To 25.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
0	4.0	Brown, dry SILT; some some
4.0	8.0	CLAY; trace sand
8.0	12.0	Brown, dry, medium SAND
12.0	16.0	Brown, dry, medium SAND
16.0	20.0	Brown, moist, SILT; some sand
20.0	24.0	Light gray, moist, very dense/fine SAND
24.0	28.0	Light gray, moist, very dense/fine SAND

11. REMARKS:

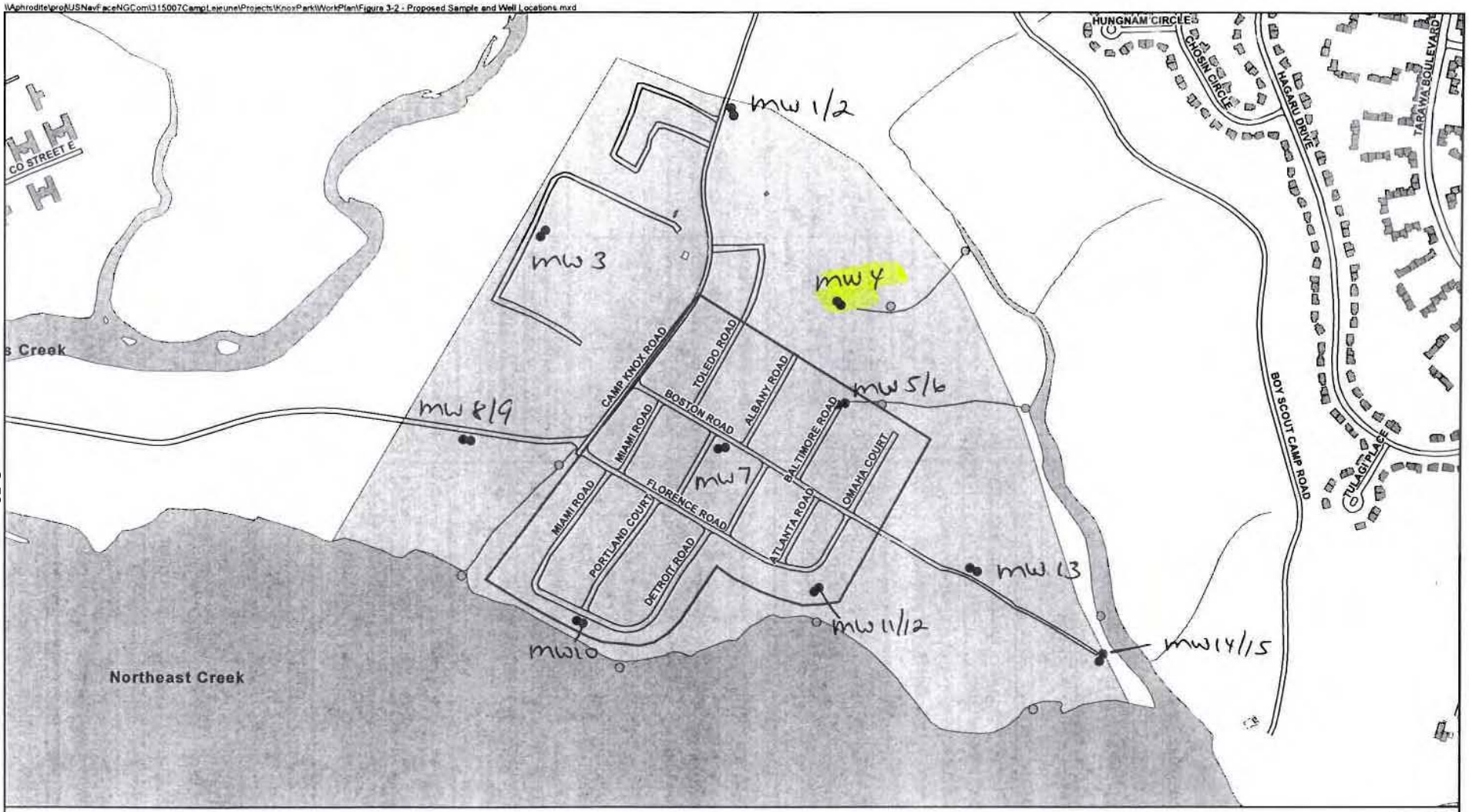
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Nathan Sweeting 4-17-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Nathan Sweeting
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3359

1. WELL CONTRACTOR:

NATHAN SWEETING
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-7

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/15/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 17.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 7.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 3.0	Ft.	PORTLAND	TREMIE
From 3.0	To 5.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 7.0	To 17.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 5.0	To 17.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
0	4.0	Tan, dry SILT; trace sand
4.0	8.0	Tan/gray, damp/dry SILT; trace sand
8.0	12.0	Gray, dry CLAY; trace sand
12.0	16.0	Gray, dry CLAY; some brown, wet, fine sand
16.0	20.0	Brown, wet fine SAND; some green clay
20.0	24.0	Green, dense CLAY

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE 4-17-06

Nathan Sweeting
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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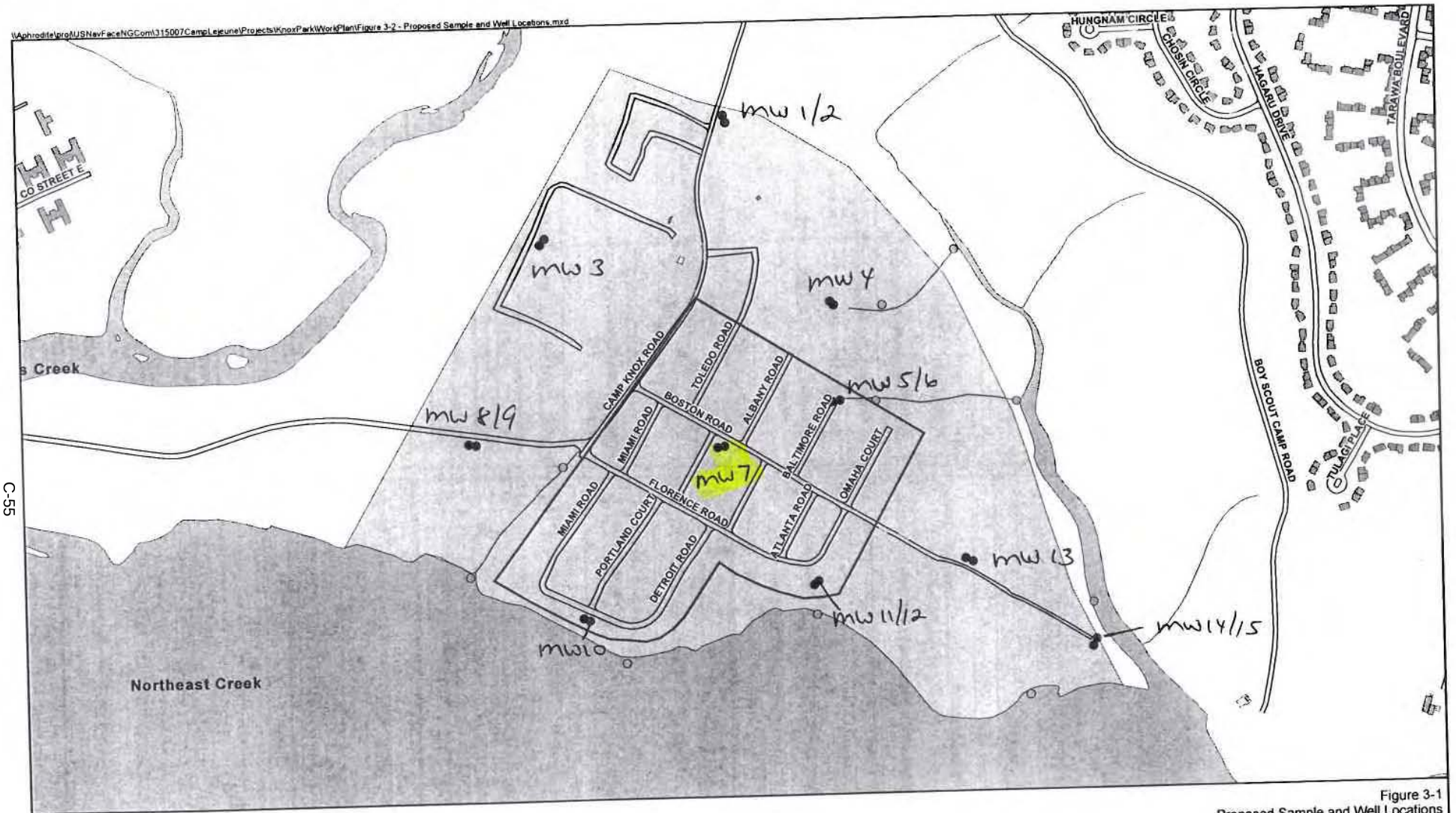
Rev. 7/05



Legend

- Installation Area
- Structure Area
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- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-6

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/14-3/17/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 45.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 14.0' FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To ____ From ____ To ____
From ____ To ____ From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 25.0	Ft.	6"	SCH 40	PVC
From 0	To 40.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 31.0	Ft.	PORTLAND	TREMIE
From 31.0	To 36.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 40.0	To 45.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 36.0	To 45.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
30.0	32.0'	Black, wet WOOD; some fine sand
35.0	37.0	Olive green, wet, medium dense, SILT; some fine sand

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis S Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis LeFever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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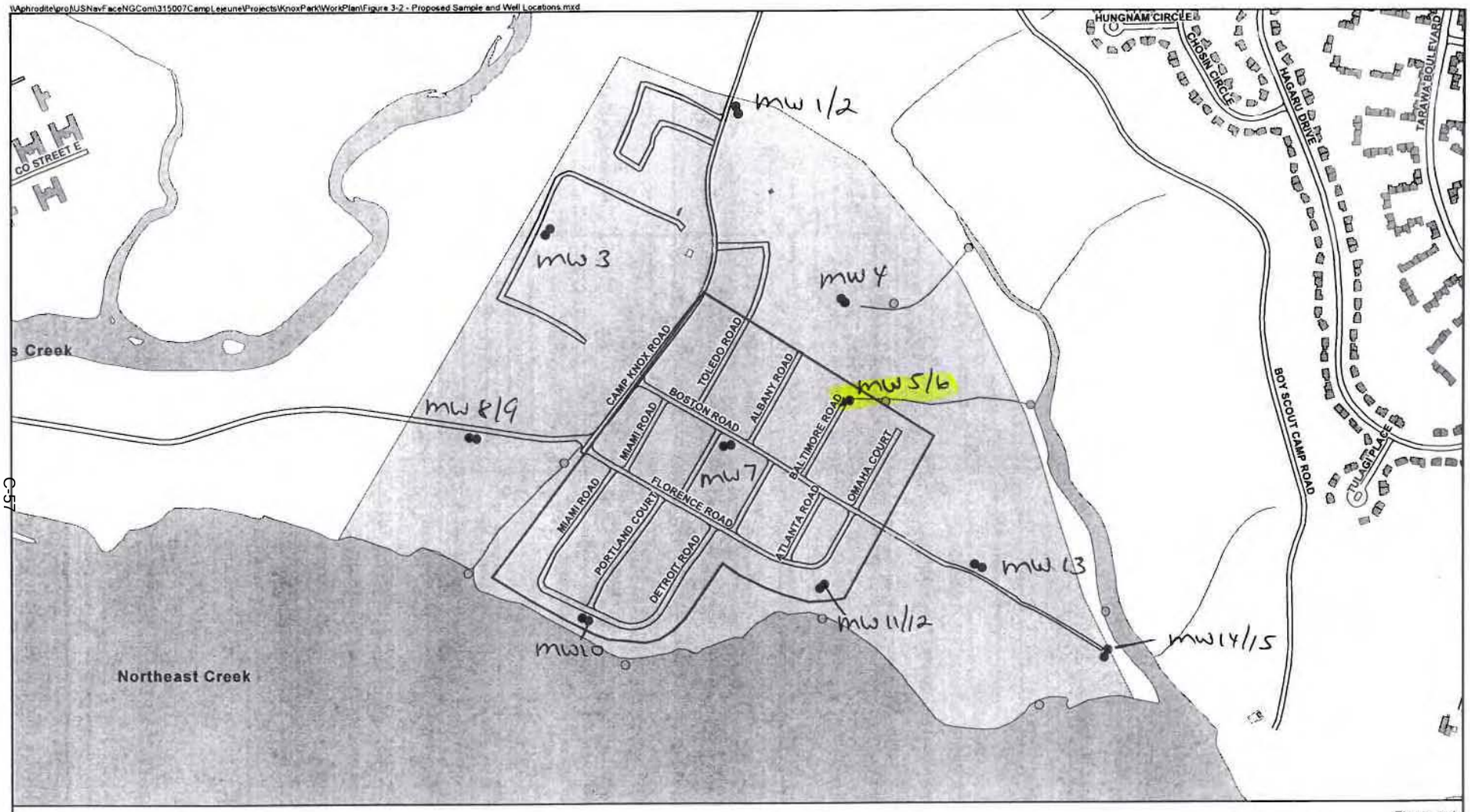
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-9

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/16-3/18/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 40.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 8.0' FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 20.0	Ft.	6"	SCH 40	PVC
From 0	To 35.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 28.0	Ft.	PORTLAND	TREMIE
From 28.0	To 32.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 35.0	To 40.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 32.0	To 40.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
25.0	27.0'	Tan, wet, dense, fine SAND; some silt
30.0	32.0	Olive green, wet, loose SILT; some fine sand

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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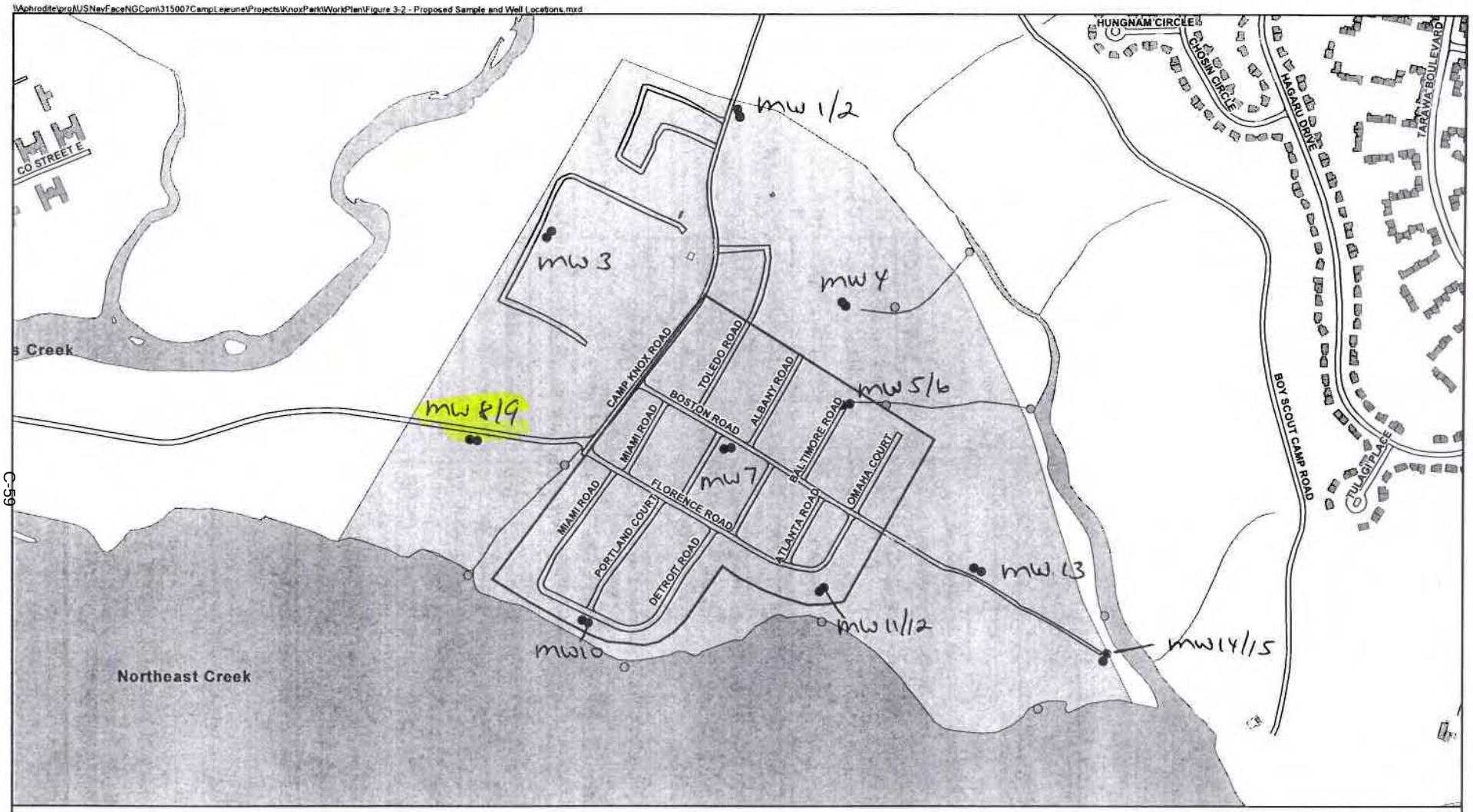
Rev. 7/05



Legend

- Installation Area
- Structure Area
- Vehicle Parking Area
- Road Area
- Surface Water Course Centerline
- Surface Water Body Area
- Knox Trailer Park
- Estimated Site Investigation Area
- Surface Water and Sediment Sample Location
- Direct Push Soil Sample Location
- Shallow Monitoring Well Location
- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2480

1. WELL CONTRACTOR:

LEWIS LEFEVER
Well Contractor (Individual) Name

PARRATT-WOLFF, INC.
Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278
City or Town State Zip Code

(919)- 644-2814
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW-12

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 3/16-3/18/06

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: JACKSONVILLE COUNTY ONSLOW

MCB CAMP LEJEUNE
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐Slope ☐Valley ☐Flat ☐Ridge ☐ Other
(check appropriate box)

LATITUDE 3 4 44.651'

LONGITUDE 7 7 25.039'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐GPS ☒Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY MCB CAMP LEJEUNE

STREET ADDRESS

JACKSONVILLE NC 28542
City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

( )-
Area code - Phone number

5. WELL DETAILS:

a. **TOTAL DEPTH:** 50.0'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: 17.0 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** N/A FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** N/A

f. **DISINFECTION: Type** N/A **Amount** N/A

g. **WATER ZONES** (depth):

From N/A To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From 0	To 28.0	Ft.	6"	SCH 40	PVC
From 0	To 45.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 36.0	Ft.	PORTLAND	TREMIE
From 36.0	To 41.0	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 45.0	To 50.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 41.0	To 50.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description
32.0	34.0'	Brown/orange, medium dense, fine SAND & SILT
37.0	39.0	Gray, wet, mediuim dense SILT; some fine sand

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Lewis J Lefever 4/12/06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Lewis Lefever
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

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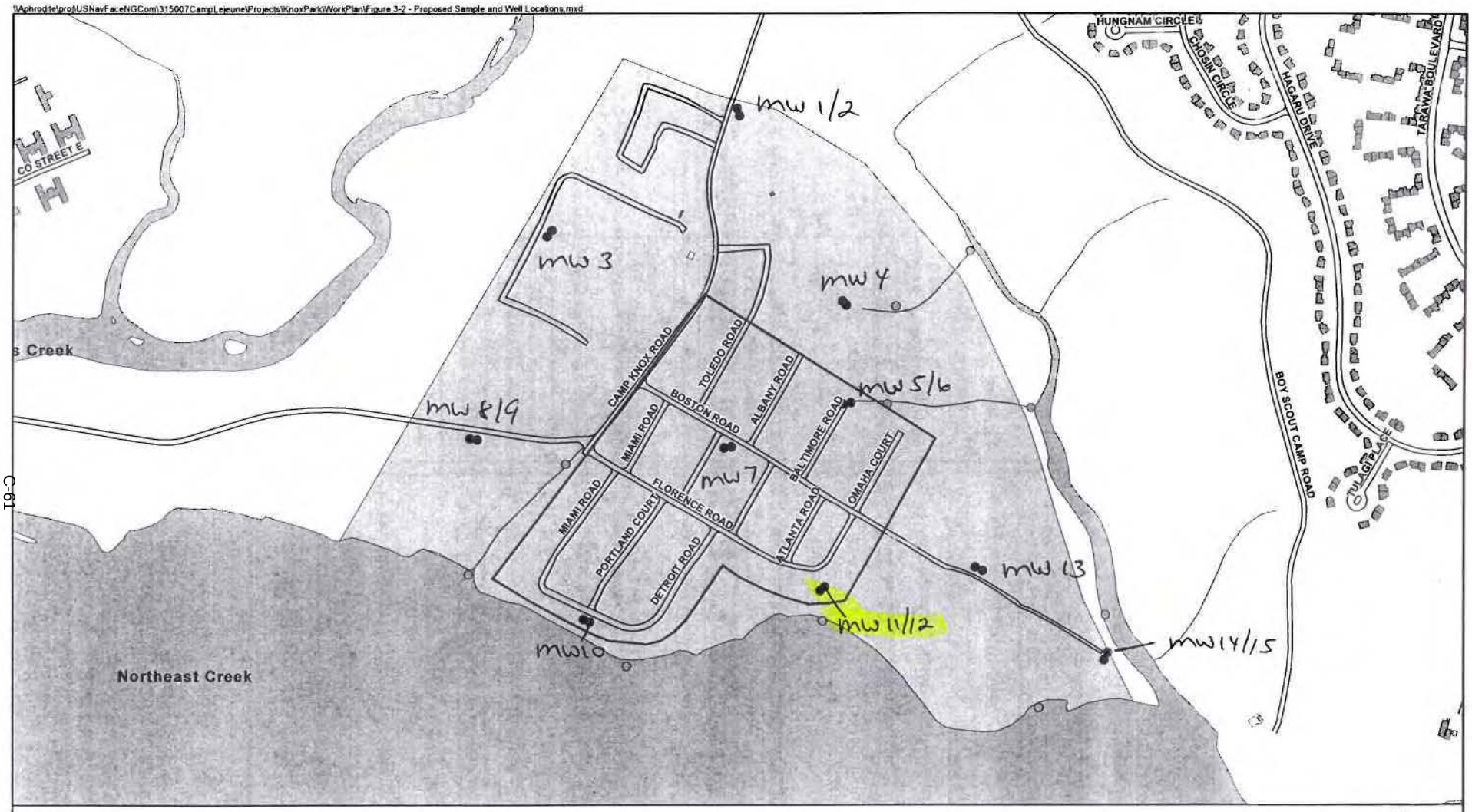

Legend

- Installation Area
- Structure Area
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- Direct Push Soil Sample Location
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- Shallow/Intermediate Monitoring Well Pair Location

N W E S

250 0 250 Meters

Figure 3-1
Proposed Sample and Well Locations
Knox Trailer Park, Site UXO-04
MCB Camp Lejeune
Camp Lejeune, North Carolina

CH2MHILL

Appendix F
Groundwater Sampling Data and Well Development Sheets

Well Development Sheets

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW01

Project No: 330966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/20/04	1555	Surge well		start	pump.			
Method: Whale Pump	1605	Water	clears					
Pump setting: Varied	1610	4.64	.226	15.50	118	—	376	17.70
Well casing dia. (in.): 2"	1615	4.66	.221	15.77	12	—	380	17.70
Total well depth (TOC): 24.85	1616	Surge	well	screen.				
Static water level (TOC): 16.80	1620	4.67	.213	15.98	358	—	376	17.64
One purge volume (gals.): 1.31	1625	4.70	.206	16.02	19	—	377	17.65
Start time: 1555	1626	Surge	well	screen				
End time: 1645	1630	4.71	.199	16.02	374	—	372	17.54
Total dev. volume (gals.): 65	1635	4.73	.193	16.03	12	—	370	17.54
Comments:	→ Surge	well		last	time			
Developed well	1640	4.72	.188	16.04	286	—	362	17.50
concurrently w/	1645	4.72	0.186	16.04	4	—	359	17.50
MW02.	1645	STOP	development					

Observations/Notes:

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW02

Project No: 339966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/20/06	1600	Start pump						
Method: Whale Pump	1605	Surge well. Water clear but well is						
Pump setting: Varied		pumping slowly (< 1 gal/min)						
Well casing dia. (in.): 2"	1612	Break suction. Allow well to recharge						
Total well depth (TOC): 47.93	1617	Surge well, Start pump						
Static water level (TOC): 16.78	1623	Break suction. Stop pump						
One purge volume (gals.): 5.07	1628	Start pump. Cloudy but clearing						
Start time: 1600	1630	Water clear						
End time: 1715	1632	Turbidity = 30 ntu. Surge well.						
Total dev. volume (gals.): 30	1640	Stop pump to recharge						
Comments:	1646	Start to collect water quality						
Developed well	1650	10.10	.402	15.99	132	—	106	39.60
concurrently w/	1655	9.90	.445	15.75	49	—	63	43.80
MW01.	1658	Break suction. stop pump. Recharge						
	1705	Start pump						
	1706	9.97	.443	15.31	50	—	34	—
	1712	9.95	.440	15.41	65	—	75	—
	1715	Break suction. Stop development.						

Observations/Notes:

CH2MHILL

PROJECT NUMBER	WELL NUMBER	
330966.FI	MW03	SHEET 1 OF 1

WELL DEVELOPMENT LOG

PROJECT: Knox Training Park LOCATION: Camp Lejeune
DEVELOPMENT CONTRACTOR: CH2M
DEVELOPMENT METHOD AND EQUIPMENT USED: Waterra pump / Horiba U-22 / HACH 2100P
START WATER LEVELS: START: 19.00 END: ~~14.70~~ 19.75 LOGGER:

MAXIMUM DRAWDOWN DURING PUMPING:
RANGE AND AVERAGE DISCHARGE RATE: 1.0 gpm
TOTAL QUANTITY OF WATER DISCHARGED: 48
DISPOSITION OF DISCHARGE WATER: Drummed at well site to be moved to staging area

ORP	Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Turbidity (NTU)	Temperature (°C)	pH	Conductivity ~~(µmhos/cm)~~ *	Remarks (color, odor, sheen, sediment, etc.)
182	5	5	19.71	433	17.24	4.95	0.241	slightly turbid
187	8	8	Surged - slightly turbid					
177	12	12	19.70	188	16.78	4.74	0.216	
179	15	15	19.62	31.9	16.68	4.07	0.208	clear
190	20	20	19.07	681	16.64	4.64	.205	(surged at T=17min)
227	30	30	19.70	31.5	16.58	4.58		clear
	32	32	Surged - v. slight turbidity					
237	40	40	19.70	224	16.53	4.57	0.195	
255	50	~~70~~ 48	19.75	20.6	16.50	4.53	0.191	clear
~~2~~	~~60~~	48						

Secure development at 1820

* mS/cm

WELDEV.XLS

CH2MHILL

PROJECT NUMBER	WELL NUMBER	
330996-STEI	MW04	SHEET 1 OF 1

WELL DEVELOPMENT LOG

PROJECT: Knox Park LOCATION: Camp Lejeune
DEVELOPMENT CONTRACTOR: CH2M
DEVELOPMENT METHOD AND EQUIPMENT USED: whale pump / Hariba U22 / Hach Turbidimeter
START WATER LEVELS: START: 19.90 END: LOGGER:

MAXIMUM DRAWDOWN DURING PUMPING:
RANGE AND AVERAGE DISCHARGE RATE: 0.94 gpm
TOTAL QUANTITY OF WATER DISCHARGED: 52 gal
DISPOSITION OF DISCHARGE WATER: water drummed at m.well site to be moved to staging area

OLP	Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Turbidity (NTU)	Temperature (°C)	pH	Conductivity* (µmhos/cm)	Remarks (color, odor, sheen, sediment, etc.)
270	5	4.7	21.35	1000	19.73	4.78	0.114	Slightly turbid
	8	7.5	surged - slightly turbid					
299	10	9.4	21.20	OR	18.17	4.59	0.107	turbid
	14	13.2	surged - clears quickly					
296	15	14.1	20.27	OR	17.65	4.62	0.107	Clear
303	25	23.5	21.10	208	16.92	4.63	0.106	Clear
313	30	28.2	21.22	119	16.76	4.55	0.103	Clear
310	32	30.08	surged - very slightly turbid					
316	40	37.6	21.24	27.4	16.59	4.61	0.097	Clear
325	50	47	21.26	15.9	16.56	4.62	0.096	Clear
330	60	50	21.24	6.03	16.53	4.67	0.096	
		1705	secured Development at					

* mS/cm

OR = out of range

WELDEV.XLS

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW05

Project No: 330966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	Volume gallons
Date: 3/20/06	0840	Start	pump.	Very	cloudy.	Allow	to	clear
Method: Whale Pump		before	collecting	parameters				
Pump setting: Variable	0846	Break	suction.	Allow	well	to	recharge.	
Well casing dia. (in.): 2"		Will	repeat	process	until	clear.		
Total well depth (TOC): 17.77	0930	Pump	continues	to	break	suction.	while	
Static water level (TOC): 10.55		well	is	clearing.	water	is	still	cloudy.
One purge volume (gals.): 1.18	0945	4.80	.215	14.49	.631	—	.214	cloudy
Start time: 0840	will	repeat	pump/recharge	process.				
End time: 1020	1015	4.85	.208	14.49	0.781	—	.199	
Total dev. volume (gals.): ~10		Stop	pump					
Comments:								

Observations/Notes:

After 1hr 35 minutes groundwater was clearing. Well can be developed to lower turbidity, but, will take several hours due to low production rate.

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW06

Project No: 339166.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	Volume gallons
Date: 3/20/06	0847	Start pump. Will pump well until it clears						
Method: Whale Pump		before collecting water quality.						
Pump setting: Variable	0902	Break suction. Allow well to recharge						
Well casing dia. (in.): 2"	0930	Have repeated the pump/recharge process						
Total well depth (TOC): ~~15.15~~ 15.11		several times water has cleared,						
Static water level (TOC): 12.02		will begin collecting data						
One purge volume (gals.): 5.39	0935	6.30	.287	14.15	28	—	97	
Start time: 0847	0938	6.34	.287	14.91	20	—	99	
End time: 0955	↓	Stop pump. Recharge well						
Total dev. volume (gals.): 30 gallons	0942	6.25	.271	15.43	8	—	98	
Comments:	0944	6.21	.272	15.58	7	—	96	
Developed concurrently w/ MW05.	↓	Stop pump. Recharge well						
	0948	6.31	.258	15.68	7	—	95	
	0953	6.29	.265	15.68	5	—	99	
	0955	Stop development						

Observations/Notes:
There is sediment accumulation in this well. It cannot be removed by this development method.

CH2MHILL

PROJECT NUMBER	WELL NUMBER	
320996.SI.FI	MW07	SHEET 1 OF 1

WELL DEVELOPMENT LOG

3/18/04

PROJECT: Knox Trailer Park LOCATION: Camp Lejeune

DEVELOPMENT CONTRACTOR:

DEVELOPMENT METHOD AND EQUIPMENT USED:

START WATER LEVELS: START: 12.50 END: DRY LOGGER: STP

MAXIMUM DRAWDOWN DURING PUMPING: 9.7 'BTOC

RANGE AND AVERAGE DISCHARGE RATE: 1.0 gPM

TOTAL QUANTITY OF WATER DISCHARGED: ~~Drummed~~ ~8.5 gal

DISPOSITION OF DISCHARGE WATER:

Drummed at well site to be moved to staging Area

ORP	Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Turbidity (NTU)	Temperature (°C)	pH	Conductivity (µmhos/cm)	Remarks (color, odor, sheen, sediment, etc.)
224	3	3	19.50	785	11.87	4.50	0.169	Turbid
		well	Dry At ~4min after 4 gal -					
+	12	~~3~~ 4	16.66	-	Pumping			
195	13	~~4~~ 5	18.60	802 ~~15.43~~	15.43	4.93	0.174	
	15	~7		well	Dry -	recharging Time		
	25	~7	16.21	-	Pumping			
221	20	~8	19.20	279	16.46	4.78	0.136	clear
	26.5	~8.5		well	Dry			

Secure well devel at 0900

WELDEV.XLS

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW08

Project No: 330966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/19/06	1504	4.96	.058	16.01	288		286	12.06
Method: Whale Pump	1509	4.87	.061	16.12	48		293	12.06
Pump setting: ~~Bottom~~ Varied	1510	Surge	Screen	w/	pump.			
Well casing dia. (in.): 2"	1515	5.08	.065	16.19	350		287	12.06
Total well depth (TOC): 22.38	1520	5.10	.066	16.22	62		292	11.98
Static water level (TOC): 11.14	1521	Surge	Screen	w/	pump			
One purge volume (gals.): 1.83	1530	4.89	.067	16.26	104		307	11.96
Start time: 1454	1535	4.97	.068	16.25	17		310	12.02
End time: 1556	1536	Surge	Screen	w/	Pump			
Total dev. volume (gals.): 80	1540	5.00	.069	16.25	337		308	12.02
Comments:	1545	5.02	.068	16.25	85		311	12.02
	1550	5.00	.068	16.25	38		316	12.02
	1555	5.00	.068	16.24	9.2		321	12.02
	1556	Stop	Pump.					

Observations/Notes:

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW09

Project No: 330966.51.A1 **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/19/06	1600	Start pump. Very cloudy.						
Method: Whale Pump	1620	Clearing w/ the silt present						
Pump setting: Variable	1625	6.72	.261	16.24	258	—	173	—
Well casing dia. (in.): 2"	1628	6.73	.258	16.24	~~171~~ 163	—	171	
Total well depth (TOC): 43.20	Break suction. Allow well to recharge.							
Static water level (TOC): 10.71	1633	Start pump. Sand/Silt content decreasing						
One purge volume (gals.): ~~45.27~~ 5.29	1634	6.76	.248	16.29	173	—	162	—
Start time: 1600	1635	Break suction, stop pump						
End time: 1711	1638	Start pump						
Total dev. volume (gals.): ~30 gal	1640	6.42	.242	16.78	147	—	147	—
Comments:	1642	Break suction, stop pump.						
	1644	Start pump						
	1645	6.37	.247	16.62	98	—	153	—
	1647	Break suction, stop pump						
	1652	Start pump						
	1655	6.28	.248	16.29	40	—	147	—
	1658	Break suction stop pump.						
	1700	6.19	.241	16.09	27	—	143	—
	1704	stop pump						
	1709	6.17	.212	16.05	22	—	140	—
	1711	stop pump						

Observations/Notes:

While the deep well will not recharge fast enough to keep pace w/ two-stage whale pump, it should have sufficient recharge to provide groundwater samples

CH2MHILL

PROJECT NUMBER	WELL NUMBER	
330996.SI.FI	MW010	SHEET 1 OF 1

WELL DEVELOPMENT LOG 3/18/06

PROJECT: Knox Trim Park LOCATION: Camp
DEVELOPMENT CONTRACTOR:
DEVELOPMENT METHOD AND EQUIPMENT USED:
START WATER LEVELS: START: 16.60 FT BTOC END: 20.35 FT BTOC LOGGER: STP
MAXIMUM DRAWDOWN DURING PUMPING: 4.25'
RANGE AND AVERAGE DISCHARGE RATE: 1.25 gpm
TOTAL QUANTITY OF WATER DISCHARGED:
DISPOSITION OF DISCHARGE WATER: Drummed at well location to be moved to staging area

ORP	Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Turbidity (NTU)	Temperature (°C)	pH	Conductivity ~~(µmhos/cm)~~ *	Remarks (color, odor, sheen, sediment, etc.)
315	7	8.25	20.35	OR	10.04	4.52	0.199	V. turbid
315	11	13.75	20.55	1000	14.97	4.61	0.168	Turbid
	13	16.25	Surged - turbid					
336	20	25.0	20.52	344	16.37	4.69	0.160	Slightly turbid
	23	28.75	Surged - V. turbid					
344	30	37.50	20.22	96.8	16.50	4.61	0.160	Slightly turbid
357	35	43.75	20.70	118	16.52	4.52	0.160	Slightly turbid
368	40	50	20.35	65.5	16.52	4.47		
		Secured development at drum fill						

* mS/cm

WELDEV.XLS

OR = Out of Range

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park Drilling **Well ID:** MW11

Project No: 330966.SF.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/20/06	1047	5.32	.109	15.26	>1000	—	245	
Method: Whale Pump	1055	5.31	.095	16.32	428		260	25.28
Pump setting: Variable	1057	Surge well screen			>1000			
Well casing dia. (in.): 2"	1100	5.16	.094	16.46	~~277~~	—	277	25.83
Total well depth (TOC): 29.50'	1105	4.98	.084	17.03	260	—	298	26.09
Static water level (TOC): 21.03	1108	Surge well screen						
One purge volume (gals.): 1.38	1110	4.90	.080	17.21	142	—	312	25.77
Start time: 1045	1115	4.83	.079	17.24	17	—	317	25.71
End time: 1135	1116	Surge well screen						
Total dev. volume (gals.): ~70	1122	4.71	.076	17.36	18	—	328	—
Comments:	1123	Surge well screen.						
Depths from TOC are prior to cutting down casing for flush-mount completion.	1130	4.72	.075	17.45	32	—	333	25.06
	1135	4.70	.075	17.48	13	—	335	24.95
		Stop pump						
Developed concurrently w/ MW12								

Observations/Notes:

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW12

Project No: 330966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume~~ gallons PTW
Date: 3/20/06	1050	Start pump. Allow well to clear. Will						
Method: Whale Pump		probably break suction & need to						
Pump setting: Variable		recharge before collecting data.						
Well casing dia. (in.): 2"	1102	Surge well						
Total well depth (TOC): 54.75'	1105	Break suction, stop pump, recharge						
Static water level (TOC): 22.71	1110	Start pump						
One purge volume (gals.): 5.22	1113	Break suction, stop pump.						
Start time: 1050	1125	While surging well, wire separates @ 50						
End time: 1530		pulls tubing loose. Will have to fish						
Total dev. volume (gals.): ~30		pump/tubing from well.						
Comments:	1415	Pump removed & reassembled. Resume pumping						
Depths from TOC are prior to cutting down casing for flush-mount completion.	1421	10.07	.308	17.22	360	—	55	33.35
	1424	Surge well						
	1426	Break suction, stop pump, recharge						
	1435	Pump well						
	1441	Break suction. Stop pump.						
	1448	Pump well						
	1450	10.13	.317	16.73	>1000	—	21	—
	1453	9.90	.266	16.64	384	—	16	—
	1500	Pump well						
	1501	9.89	.284	15.95	391		39	—
	1503	Stop pump						
	1505	Start pump. Cloudy but clearing						
	1508	9.72	.273	16.32	451	—	36	—
	1522	9.74	.288	16.64	555	—	35	—
	1528	9.74	.253	16.59	72	—	37	—
	1530	Stop pump.						

Observations/Notes:

Well should produce sufficient groundwater for sampling.

CH2MHILL

PROJECT NUMBER	WELL NUMBER	
330966.ST.FT	MW13	SHEET 1 OF 1

WELL DEVELOPMENT LOG

PROJECT: Knox trail Park LOCATION: Camp Lejeune
DEVELOPMENT CONTRACTOR: CH2M
DEVELOPMENT METHOD AND EQUIPMENT USED:
START WATER LEVELS: START: 21.40 ft BTOC END: 23.40 LOGGER: STP
MAXIMUM DRAWDOWN DURING PUMPING: 3.0 Ft
RANGE AND AVERAGE DISCHARGE RATE: 0.75 gpm
TOTAL QUANTITY OF WATER DISCHARGED: 45.0
DISPOSITION OF DISCHARGE WATER: Drummed at MW location to be moved to staging area

ORP	(min) Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Turbidity (NTU)	Temperature (°C)	pH	Conductivity * ~~(µmhos/cm)~~	Remarks (color, odor, sheen, sediment, etc.)
327	5	3.75	24.10	OR	17.7	4.68	0.92	Very Turbid
313	11	8.25	24.40	1000	17.4	4.59	0.81	Turbid
	14	12	Surged - Turbid					
318	20	15	24.20	986	17.23	4.67	0.075	clear
	23	~~15~~	Surged - slightly turbid					
321	26	19.5	24.15	180	17.21	4.72	0.072	Slightly turbid
323	30	22.5	24.17	41.3	17.19	4.72	0.071	clear
	31	23.25	Surged - slightly turbid				~~0.8~~	
326	40	30.0gal	23.50	33.5	17.28	4.76	0.070	clear
324	43	32.25	Surged - clears quickly					
327	50	37.5	23.40	35.7	17.29	4.76	0.069	clear
327	60	45.0	23.40	11.8	17.29	4.73	0.068	clear
			Secure Development at 60 min					

* mS/cm

WELDEV.XLS

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Kmart Trailer Park **Well ID:** MW14

Project No: 550946.55.FT **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ DTW
Date: 3/20/04	0656	Start	pump	after	surging	well.	Cloudy	
Method: Whale Pump	0706	Surge	well	w/	pump.			
Pump setting: Variable	0710	~~8.45~~ 4.92	.054	14.33	510	—	324	8.45
Well casing dia. (in.): 2"	0715	4.91	.054	14.42	75	—	324	8.45
Total well depth (TOC): 17.54	0716	Surge	well	w/	pump.	Cloudy		
Static water level (TOC): 7.43	0720	4.90	.054	14.47	111	—	331	8.45
One purge volume (gals.): 1.64	0725	4.89	.053	14.48	20	—	340	8.38
Start time: 0656	0726	Surge	well	w/	pump			
End time: 0743	0731	4.90	.052	14.47	134	—	337	8.36
Total dev. volume (gals.): ~70	0732	Allow	well	to	pump	clear		
Comments:	0736	4.89	.051	14.46	16	—	346	8.38
Developing MW15	0741	4.88	.051	14.47	7	—	348	8.38
concurrently.	0743	Stop	pump					

Observations/Notes:

Attachment 3

CH2MHILL

Well Development Sheet

Project Site Name: Knox Trailer Park **Well ID:** MW15

Project No: 330966.SI.FI **Contractor:** Parratt-Wolff

Development data

	Time	pH SU	Cond. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	~~Volume gallons~~ FTZU
Date: 3/20/06	0705	Start	pump	after	surging	screen.		
Method: Whale Pump	0720	Turbidity	at	70	NTU.			
Pump setting: Variable	0743	10.84	.359	14.68	8	—	60	
Well casing dia. (in.): 2"	0748	9.96	.264	15.40	7	—	47	
Total well depth (TOC): 36.18	↳	Break	suction,	stop	pump			
Static water level (TOC): 7.36	0753	10.13	.297	15.05	4	—	42	
One purge volume (gals.): 4.70	0758	Break	suction	stop	pump.			
Start time: 0705	0805	10.07	.284	14.16	6	—	45	
End time: 0810	0806	Break	suction.					
Total dev. volume (gals.): ~25	0810	10.08	.284	14.19	6	—	42	
Comments:	0811	Shut	down	pump.				

Comments:
Pumped well off several times & allowed to recharge. Continued process until MW14 was completed & then collected water quality.

Observations/Notes:

Groundwater Sampling Data Sheets

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/28/06
Weather: Sunny 50°

Project Number: 330966.SI.FQ
Well ID: MR04-MW01
Sample ID: MR04-MW01-06A
Sampling Team: R. Delean
M. Ost

Total Depth: 24.91 FT.(BTOC)
Depth to water: (-) 17.06 FT.(BTOC)
Water Column: 7.85 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.28 GAL.
Total Purge Vol.: 3900 ~~GAL.~~ mL

Purge Device: Geo pump

Measuring Device: Solinst
Date and Time: 3/28/06 0818

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 3/28/06 Time: 0809	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: PCB	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. ~~(gals)~~ mL	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
0832	500	15.69	.206	8.30	3.92	260.1	9.81	17.5	
0837	1100	15.95	.206	8.05	4.15	252.7	7.13	17.0	Clear
0842	1700	15.97	.206	7.75	4.11	254.6	5.45	17.0	
0843	2300	15.86	.206	7.49	4.08	258.7	3.60	17.2	
0846	2900	15.99	.206	7.34	4.06	262.8	3.23	17.2	
0851	3900	16.16	.206	7.06	4.04	269.4	2.58	17.2	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune Knox
Event: MRP Site UXO 04
Date: 1 Apr 2006
Weather: Overcast

Project Number: 330966.SI.FQ
Well ID: MA04-MW02
Sample ID: MA04-MW02-06A
Sampling Team: M Ost
R Stetson

Total Depth: 48.05 FT.(BTOC)
Depth to water: (-) 17.03 FT.(BTOC)
Water Column: 31.02 FT.
(x) .163 GAL/FT.
Well Volume: 5.03 GAL.
Total Purge Vol.: 5.5 GAL.

Purge Device: Geopump

300 ml/min

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
0819	500	18.54	.433	1.54	8.71	214.7	8.20	21.5	Clr
0822	1400	18.49	.432	1.32	8.63	215.8	4.24	21.5	Clr
0825	2300	18.41	.431	1.22	8.30	227.8	3.67	21.5	Clr
0828	3200	18.48	.429	1.18	8.18	232.5	3.48	21.5	Clr
0831	4100	18.52	.428	1.13	8.05	232.7	3.19	21.5	Clr
0836	5600	18.43	.427	1.11	7.94	234.3	3.03	21.5	Clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVSEA
Project Number: 330966.5I F4
Location: Camp Lejeune - Knox Trailer
Well ID: MW04 - MW03 MW03
Event: MRP Site UXO-04 sampling
Sample ID: MW04 - MW03 - 06A
Date: 3/29/2006
Sampling Team: M. Ost
Weather: Clear 50°
R Orleans

Total Depth: 26.08 FT.(BTOC)
Depth to water: (-) 19.31 FT.(BTOC)
Water Column: 6.77 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.1 Gal GAL.
Total Purge Vol.: 5600 ~~GAL.~~ ML
Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals) ML	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1116	~~17.77~~ 500	17.75	.231	5.30	3.75	281.7	23.2	19.0	
1119	1400	17.59	.229	2.88	3.64	337.2	19.6	19.7	
1122	2300	17.56	.229	2.91	3.63	344.4	16.3	19.1	
1125	3200	17.53	.229	3.02	3.70	341.3	14.3	19.2	
1128	4100	17.61	.229	3.08	3.68	344.8	12.6	19.2	
1133	5600	17.62	.229	3.10	3.68	356.30	9.94	19.4	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/30/10
Weather: Sunny 75°

Project Number: 330966.SI.FQ
Well ID: MR04-MW04
Sample ID: MR04-MW04-06A
Sampling Team: M. OSE, R. Dalton

Total Depth: 27.75 FT.(BTOC)
Depth to water: (-) 20.29 FT.(BTOC)
Water Column: 7.46 FT.
(x) .163 GAL/FT.
Well Volume: 1.21 GAL.
Total Purge Vol.: 1.5 GAL.

Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1313	500	18.74	.125	2.86	4.42	297.1	2.35	20.32	CLR
1316	1100	18.69	.121	2.47	4.20	331.4	2.30	20.32	CLR
1319	1700	18.56	.117	2.37	4.15	346.7	2.11	20.32	CLR
1322	2300	18.56	.116	2.32	4.15	355.6	1.98	20.32	CLR
1327	3300	18.56	.115	2.28	4.19	362.9	1.76	20.32	CLR

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/29/2006
Weather: 70° Sunny

Project Number: 330966.SI.FQ
Well ID: MR04-MW05
Sample ID: MR04-MW05-06A
Sampling Team: R. Delegard, M. Est

Total Depth: 17.80 FT.(BTOC)
Depth to water: (-) 10.82 FT.(BTOC)
Water Column: 6.98 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.1 GAL.
Total Purge Vol.: 2200 ~~GAL.~~ ml
Purge Device: Geopump

Measuring Device: M-est
Date and Time: R. Delegard

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1307	500	17.83	.230	2.81	4.31	297.3	2.29	11.39	Clear
1310	800	17.51	.231	2.22	4.16	305.9	5.38	11.39	Clear
1313	1100	17.29	.231	2.27	4.09	314.0	5.99	11.39	clr
1316	1400	17.77	.230	2.20	4.13	315.0	5.64	11.41	CLR
1319	1700	17.86	.230	2.17	4.15	313.7	5.26	11.41	CLR
1324	2200	17.87	.230	2.11	4.13	315.7	4.53	11.42	clr
						312.1			

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/31/06
Weather: Sunny 50°F

Project Number: 330966.SI.FQ
Well ID: MR04-MW06
Sample ID: MR04-MW06-06A
Sampling Team: R. Nelson, M. Ose

Total Depth: 45.26 FT.(BTOC)
Depth to water: (-) 20.12 FT.(BTOC)
Water Column: 25.14 FT.
(x) .163 GAL/FT.
Well Volume: 4 GAL.
Total Purge Vol.: 4 GAL.

200 ml/min

Measuring Device:
Date and Time:

Purge Device: Geopump

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. ~~(gals)~~	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1411	500	20.15	1.329	3.26	12.39	82.1	28.7	22.87	clr
1414	1100	19.85	1.316	2.96	12.23	109.7	29.9	22.87	clr
1417	1700	19.91	1.287	1.99	12.07	120.8	26.2	22.87	clr
1420	2300	19.96	1.159	1.70	11.97	132.9	33.5	22.87	clr
1423	2900	19.99	0.983	1.40	11.02	140.7	32.5	22.87	~~clr~~ (1422)
1428	3900	19.24	0.919	1.26	10.88	128.8	36.7	22.87	clear

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/28/2002
Weather: Clear

Project Number: 330966.SI.FQ
Well ID: MR04-MW07
Sample ID: MR04-MW07-06A
Sampling Team: Rick Nelson, Mark Ost

Total Depth: 20.29 FT.(BTOC)
Depth to water: (-) 12.73 FT.(BTOC)
Water Column: 7.56 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.23 GAL.
Total Purge Vol.: 1900 ~~GAL.~~

Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. mL ~~(gals)~~	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1336	500	17.14	.124	8.25	4.02	298.0	4.31	13.85 btc	Clear
1339	800	16.95	.121	7.98	4.00	309.6	4.30	13.90 btc	
1342	1100	16.96	.118	8.03	4.00	312.0	4.14	13.80 btc	
1345	1400	17.10	.118	8.16	4.0	313.8	5.62	13.95 btc	
1350	1900	16.96	.119	8.64	4.0	316.1	6.72	13.99 btc	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/30/06
Weather: sunny 75°

Project Number: 330966.SI.FQ
Well ID: MR04-MW08
Sample ID: MR04-MW08-06A
Sampling Team: R. Dickson, M. Oil

Total Depth: 22.42 FT.(BTOC)
Depth to water: (-) 11.26 FT.(BTOC)
Water Column: 11.16 FT.
(x) .163 GAL/FT.
Well Volume: 1.8 GAL.
Total Purge Vol.: 2 GAL ~~GAL.~~ 300 ml/min

Measuring Device:
Date and Time:

Purge Device: Geopumps

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
0713	500	13.94	.062	5.46	4.36	253.0	4.72	11.26	clr
0716	1400	14.69	.056	4.56	4.31	250.1	4.00	11.26	clr
0719	2300	15.20	.053	3.70	4.49	249.2	3.06	11.26	clr
0722	3200	15.27	.052	3.11	4.48	250.9	2.43	11.26	clr
0727	4700	15.41	.052	2.22	4.39	261.2	2.18	11.26	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/30/06
Weather: Sunny 75°

Project Number: 330966.SI.FQ
Well ID: MR04-MW09
Sample ID: MR04-MW09-06A
Sampling Team: R. Nelson, M. Orr

Total Depth: 43.27 FT.(BTOC)
Depth to water: (-) 11.12 FT.(BTOC)
Water Column: 32.15 FT.
(x) .163 GAL/FT.
Well Volume: 5.24 GAL.
Total Purge Vol.: 6.0 GAL.

Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
1108	500	18.93	.298	2.37	6.20	187.7	3.38	15.96	CLR
1111	1100	18.18	.299	1.88	6.26	185.3	4.05	15.10	clr
1114	1700	18.54	.299	1.86	6.17	189.2	4.03	16.23	clr
1117	2300	18.65	.296	1.50	6.13	182.1	3.06	16.31	CLR
1120	2900	18.71	.294	1.46	6.10	190.0	3.58	16.35	clr
1125	3900	18.69	.291	1.31	6.04	190.3	3.68	16.40	CLR

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/29/2006
Weather: Sunny 69°

Project Number: 330966.SI.FQ
Well ID: MR04-MW10
Sample ID: MR04-MW10-06A
Sampling Team: MOSE
R Dalton

Total Depth: 23.72 FT.(BTOC)
Depth to water: (-) 16.50 FT.(BTOC)
Water Column: 7.22 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.2 GAL.
Total Purge Vol.: 3300 ~~GAL.~~ ml

Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. ~~(gals)~~ mL	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
1050	500	18.84	.170	5.35	4.49	219.6	11.6	16.55	clear
1053	1100	19.00	.172	4.44	4.49	222.3	10.4	16.55	clr
1056	1700	19.04	.173	4.20	4.48	222.7	9.50	16.55	clr
1059	2300	19.06	.172	4.20	4.49	220.4	8.95	16.55	clr
1104	3300	19.08	.173	3.98	4.46	223.4	7.38	16.55	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/29/2012
Weather: 65°F Clear

Project Number: 330966.SI.FQ
Well ID: MR04-MW11
Sample ID: MR04-MW11-06A
Sampling Team: M Osb, R Dobson

Total Depth: 27.07 FT.(BTOC)
Depth to water: (-) 18.00 FT.(BTOC)
Water Column: FT.
(x) 0.163 GAL/FT.
Well Volume: 1.47 GAL.
Total Purge Vol.: 4700 GAL.
Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
0911									
~~0910~~	500	17.72	.067	6.08	4.57	290.9	3.68	18.11	clr
0914	1400	17.75	.067	5.59	4.75	286.4	2.64	18.11	clr
0917	2300	17.92	.067	5.50	4.71	290.1	2.37	18.11	clr
0920	3200	17.73	.067	5.51	4.69	292.2	2.25	18.11	clr
0925	4700	17.87	.067	5.44	4.60	298.1	1.40	18.11	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/31/06
Weather: Sunny 75°

Project Number: 330966.SI.FQ
Well ID: MR04-MW12
Sample ID: MR04-MW12-06A
Sampling Team: R. Dezfoor, M. Oss

Total Depth: 50.04 FT.(BTOC)
Depth to water: (-) 17.55 FT.(BTOC)
Water Column: 32.49 FT.
(x) .163 GAL/FT.
Well Volume: 5.3 GAL.
Total Purge Vol.: 5.5 GAL.

Purge Device: geopump

Tube 20
200

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Redox	Color / Odor / Comments
1157	500	20.62	1.748	3.38	12.74	88.7	13.9	23.70	clr
1200	1100	20.42	1.813	3.60	12.79	88.5	15.1	23.70	clr
1203	1700	20.27	1.822	3.61	12.85	89.9	14.7	23.70	clr
1206	2300	19.73	1.765	2.81	12.83	93.1	15.7	23.80	clr → 23.80
1209	2900	19.77	1.741	2.49	12.84	95.6	16.3	24.09	clr
1214	3900	19.65	1.724	2.04	12.85	98.6	15.4	24.47	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/31/06
Weather: Sunny 70

Project Number: 330966.SI.FQ
Well ID: MR04-MW13
Sample ID: MR04-MW13-06A
Sampling Team:

Total Depth: 28.13 FT.(BTOC)
Depth to water: (-) 21.28 FT.(BTOC)
Water Column: 6.85 FT.
(x) .163 GAL/FT.
Well Volume: 1.1 GAL.
Total Purge Vol.: 1.1 GAL.

Purge Device: Geotemp

Measuring Device:
Date and Time:

300 ml/min

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: depth	Color / Odor / Comments
0942	500	18.01	.075	3.32	6.02	218.7	8.35	21.36	clr
0945	1400	17.98	.070	2.73	5.12	248.7	6.35	21.36	clr
0948	2300	17.96	.067	2.53	4.90	259.2	5.16	21.38	clr
0951	3200	18.02	.065	2.26	4.76	264.4	4.34	21.38	clr
0954	4100	18.04	.064	2.12	4.67	268.3	3.80	21.38	clr
0959	5600	18.17	.064	2.04	4.60	274.1	2.88	21.36	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/29/2006
Weather: 60° Clear

Project Number: 330966.SI.FQ
Well ID: MR04-MW14
Sample ID: MR04-MW14-06A
Sampling Team:

Total Depth: 17.56 FT.(BTOC)
Depth to water: (-) 7.39 FT.(BTOC)
Water Column: 10.17 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.6 GAL.
Total Purge Vol.: GAL.

Purge Device: Geopumps

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. ~~(gals)~~ mL	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth btc	Color / Odor / Comments
0733	500	15.43	.090	4.87	4.55	262.2	23.9	17.3	CLR
0736	1400	15.59	.063	4.36	4.48	261.2	17.7	17.3	Clr
0739	2300	15.60	.060	4.21	4.46	267.8	13.2	17.3	Clr
0742	3240	15.61	.060	4.19	4.44	274.1	10.1	17.3	Clr
0747	4700	15.79	.058	4.21	4.46	278.2	6.83	17.3	Clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 3/31/06
Weather: Sunny Clear

Project Number: 330966.SI.FQ
Well ID: MR04-MW15
Sample ID: MR04-MW15-06A
Sampling Team: R Delton
M Ost

Total Depth: 36.27 FT.(BTOC)
Depth to water: (-) 7.03 FT.(BTOC)
Water Column: 29.24 FT.
(x) .163 GAL/FT.
Well Volume: 4.7 GAL.
Total Purge Vol.: 5.2 GAL.

Purge Device: Geopump

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: Depth	Color / Odor / Comments
0751	500	16.34	.248	4.56	11.93	93.4	12.9	8.86	clr
0754	1000	16.59	.259	4.12	12.25	130.1	7.36	8.86	clr
0757	1500	16.69	.305	3.83	12.36	97.6	6.79	8.86	clr
0800	2300	16.71	.322	3.45	12.32	86.2	6.28	8.86	clr
0803	2900	16.89	.333	3.27	12.32	79.3	5.73	8.86	clr
0808	3900	16.89	.341	3.05	12.35	73.5	5.38	8.86	clr

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD
Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/1/06
Weather: Sunny 70°

Project Number: 330966.SI.FQ
Station ID: MR04-SW01; MR04-SD01
Sample ID: MR04-SW01-06A; MR04-SD01-06A
Sampling Team: A. Nelson
M. [illegible]

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/1/06 Time: ~~1205~~ 1152	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI	19.22	19.52	5.36	2.83	242.3	63.6		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
~~1158~~	–	~~19.22~~	~~19.52~~	~~5.36~~	~~2.83~~	~~242.3~~	~~63.6~~		

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/1/06
Weather: Sunny 70

Project Number: 330966.SI.FQ
Station ID: MR04-SW02; MR04-SD02
Sample ID: MR04-SW02-06A; MR04-SD02-06A
Sampling Team: R. [illegible] M. [illegible]

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/1/06 Time: 1237	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI 556	20.75	2.254	1.96	6.58	58.3	25.2		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4-1-06
Weather: Sunny 80

Project Number: 330966.SI.FQ
Station ID: MR04-SW03; MR04-SD03
Sample ID: MR04-SW03-06A; MR04-SD03-06A
Sampling Team: [illegible]
M. [illegible]

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/1/06 Time: 1339	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI Hach	20.53	20.41	5.01	7.99	237.9	86.4		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/1/06
Weather: Sunny 80°

Project Number: 330966.SI.FQ
Station ID: MR04-SW04; MR04-SD04
Sample ID: MR04-SW04-06A; MR04-SD04-06A
Sampling Team:

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/1/06 Time: 1438	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI HACK	21.44	20.04	4.93	7.88	205.11	96.0		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
		21.44	20.04	4.93	7.88	205.11	96.0		

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 40°

Project Number: 330966.SI.FQ
Station ID: MR04-SW05; MR04-SD05
Sample ID: MR04-SW05-06A; MR04-SD05-06A
Sampling Team: MOST
C Dekon

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: 0809	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI HACH	16.84	21.21	4.39	6.91	105.6	28.8		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 80°

Project Number: 330966.SI.FQ
Station ID: MR04-SW06; MR04-SD06
Sample ID: MR04-SW06-06A; MR04-SD06-06A
Sampling Team: ML Ost, A Delton

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: 0853	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: ysi HACK	18.67	18.82	3.70	7.12	54.0	7.38		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 80°

Project Number: 330966.SI.FQ
Station ID: MR04-SW07; MR04-SD07
Sample ID: MR04-SW07-06A; MR04-SD07-06A
Sampling Team: ML-OSE
E Dellon

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: ~~9:06~~ 10:06	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI Hach	19.67	19.63	3.79	7.28	57.7	12.2		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 80°

Project Number: 330966.SI.FQ
Station ID: MR04-SW08; MR04-SD08
Sample ID: MR04-SW08-06A; MR04-SD08-06A
Sampling Team: MOSK
R. Nelson

Total Depth: ____ FT.(BTOC)
Depth to water: (-) ____ FT.(BTOC)
Water Column: ____ FT.
(x) ____ GAL/FT.
Well Volume: ____ GAL.
Total Purge Vol.: ____ GAL.

Purge Device: ____

Measuring Device: ____
Date and Time: ____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: ~~1021~~ 1131	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: ____	Color / Odor / Comments
Method: Yi/Hach	13.74	.158	.69	5.83	30.9	6.50		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: ____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 80°

Project Number: 330966.SI.FQ
Station ID: MR04-SW09; MR04-SD09
Sample ID: MR04-SW09-06A; MR04-SD09-06A
Sampling Team: M Oss
R Dekker

Total Depth: 1 FT.(BTOC)
Depth to water: (-) FT.(BTOC)
Water Column: FT.
(x) GAL/FT.
Well Volume: GAL.
Total Purge Vol.: GAL.

Purge Device:

Measuring Device:
Date and Time:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: ~~1113~~ 1213	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method: YSI HACK	16.46	.190	-1.54	6.36	53.70	7.70		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD

Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Camp Lejeune-Knox Trailer Park
Event: MRP Site UXO-04 sampling
Date: 4/2/06
Weather: Sunny 80

Project Number: 330966.SI.FQ
Station ID: MR04-SW10; MR04-SD10
Sample ID: MR04-SW10-06A; MR04-SD10-06A
Sampling Team: ML Dsp
R Dellan

Total Depth: _____ FT.(BTOC)
Depth to water: (-) _____ FT.(BTOC)
Water Column: _____ FT.
(x) _____ GAL/FT.
Well Volume: _____ GAL.
Total Purge Vol.: _____ GAL.

Purge Device: _____

Measuring Device: _____
Date and Time: _____

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 4/2/06 Time: 1306	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments
Method: YSI HACK	15.58	.446	-2.69	6.53	-109.50	12.3		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: _____	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes:

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-9-07
Weather: Overcast, ~80°F

Project Number: 360362
Well ID: MW-01
Sample ID: MR04-GW01-07C
Sampling Team: J. Burton, E. Must

Total Depth: 24.70 FT.(BTOC)
Depth to water: (-) 18.76 FT.(BTOC)
Water Column: 5.94 FT.
(x) 0.163 GAL/FT.
Well Volume: 0.97 GAL. x 3 = 2.91
Total Purge Vol.: 3.25 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-9-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653
6	1.469

SAMPLE DATA

Date: 9-9-07 Time: 1150	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	21.32	0.237	2.49	2.41	420	5.2	18.92	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1120	0.375	21.22	0.239	3.11	2.54	406	18.1	18.88	
1130	1.375	21.19	0.237	2.73	2.32	419	3.9	18.88	
1135	1.875	21.15	0.237	2.32	2.33	421	4.2	18.89	
1145	2.875	21.22	0.236	2.51	2.39	420	4.8	18.91	
1150	3.25	21.32	0.237	2.49	2.41	420	5.2	18.92	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1 L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Perchlorate	—	250 mL Poly	1
Cyanide	NaOH	250 mL Poly	1
TAL Metals / Diss. Metals	HNO_3	500 mL Poly	2

Observations/Notes: pump started @ 1115

pump screen = 12-22 ft, pump inlet = 16 ft

MS/MSD | Duplicate ID No.: MR04-GW01D-07C

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-12-07
Weather: Cloudy, ~80°F

Project Number: 360362
Well ID: MW07
Sample ID: MR04-GW02-07C
Sampling Team: J. Burton

Total Depth: 47.84 FT.(BTOC)
Depth to water: (-) 18.72 FT.(BTOC)
Water Column: 29.12 FT.
(x) 0.163 GAL/FT.
Well Volume: 4.75 GAL. x 3 = 14.25
Total Purge Vol.: 14.5 GAL.

Purge Device: Proactive Monsoon

Measuring Device: Solinst
Date and Time: 9-12-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-12-07 Time: 1020	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	20.18	0.298	0.80	7.94	45	85	38.41	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
0905	0.625	20.52	1.20	2.27	9.83	-38	548	22.08	
0915	1.875	20.43	1.08	1.66	10.25	-57	505	25.82	
0925	3.5	20.49	0.488	0.41	8.31	42	128	31.24	
0940	6.5	20.28	0.397	1.02	8.33	41	107	34.72	
0955	9.5	20.17	0.356	0.83	8.38	29	105	36.85	
1010	12.5	20.10	0.310	0.78	7.96	47	91.2	38.56	
1020	14.5	20.18	0.298	0.80	7.94	45	85	38.41	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 mL Poly	1
Perchlorate	—	" "	1
TAL Metals / Diss. Metals	HNO_3	500 mL Poly	2

Observations/Notes: pump started @ 0900
well screen = 40-45, pump inlet @ 42 ft BTOC

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: MCB Camp Lejeune
Event: KTP Sampling
Date: 9/9/07
Weather: Cloudy 80's

Project Number: 360362
Well ID: MW04-MW03
Sample ID: MW04-GW03-07C
Sampling Team: EM
RZ

Total Depth: 26.59 FT.(BTOC)
Depth to water: ~~(1) 20.75~~ ~~(2)~~ FT.(BTOC) 9/9/07 20.61
Water Column: ~~(2) 5.84~~ FT. 5.98
(x) 0.163 GAL/FT.
Well Volume: ~~(2) 0.95~~ GAL. 0.97
Total Purge Vol.: 3.0 GAL.

Measuring Device:
Date and Time:

Purge Device: peristaltic pump

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9/9/07 Time: 1420	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other DTW	Color / Odor / Comments
Method: lowflow	17.70	0.200	0.49	4.15	231	186.0	20.76	Clear

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other DTW	Color / Odor / Comments
1347	0.5	17.85	0.202	0.90	4.17	259	577.0	20.72	Clear
1353	1.25	17.76	0.201	0.67	4.11	180	481.0	20.75	Clear
1358	1.75	17.73	0.200	0.76	4.07	195	128.0	20.75	Clear
1403	2.25	17.68	0.199	0.65	4.09	213	139.0	20.76	Clear
1408	2.75	17.71	0.198	0.69	4.11	233	140.0	20.76	Clear
1413	3.0	17.70	0.200	0.49	4.15	231	186.0	20.76	Clear

Sample information: method, container number, size, and type, preservative used

Analysis	Preservative	Container requirements	No. of containers
Cyanide	NaOH	1	
VOC	HCl	40 mL VOA	3
SVOC	—	1L Amber	2
Explosives	—	1L Amber	2
Pest/PCBs	—	1L Amber	4
TAL Metals	HNO_3	500mL Poly	1
Dissolved Metals	HNO_3	500mL Poly	1
Perchlorate	—	250mL Poly	1

Observations/Notes:

Tubing set ~3' above ~~ground~~ EM bottom

MS/MSD

Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-9-07
Weather: Rain

Project Number: 360362.SI.FQ
Well ID: MW-04
Sample ID: MR04-GW04/-07C
Sampling Team: J. Burton, E. Must

Total Depth: 27.54 FT.(BTOC)
Depth to water: (-) 21.95 FT.(BTOC)
Water Column: 5.55 FT.
(x) 0.163 GAL/FT.
Well Volume: 0.90 GAL. x 3 = 2.70
Total Purge Vol.: 2.75 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-9-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653
6	1.469

SAMPLE DATA

Date: 9-9-07 Time: 1620	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	19.38	0.096	1.70	2.96	363	29.4	22.11	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1600	0.75	19.43	0.097	2.56	3.16	350	15.0	22.10	
1610	1.75	19.47	0.097	2.18	2.76	372	56.5	22.14	
1620	2.75	19.38	0.096	1.70	2.96	363	29.4	22.11	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1 L Amber	2
Pest / PCB	—	" "	4
Explosives	—	" "	2
Perchlorate	—	250 mL Poly	1
Cyanide	NaOH	250 mL Poly	1
TAL Metals / Diss. Metals	HNO_3	500 mL Poly	2

Observations/Notes: pump started @ ~~1540~~ (TB) 1550

pump screen = 15-25 ; pump inlet = 19 ft

MSD
ture(s): AE BT

Duplicate ID No.:

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: MCB Camp Lejeune
Event: KTP Sampling
Date: 9/9/07
Weather: Rain 70's

Project Number: 360362
Well ID: MR04-MW05
Sample ID: MR04-GW05-07C
Sampling Team: EM
JB

Total Depth: 17.60 FT.(BTOC)
Depth to water: (-) 12.71 FT.(BTOC)
Water Column: 4.89 FT.
(x) .163 GAL/FT.
Well Volume: 0.80 GAL.
Total Purge Vol.: 2.5 GAL.

Measuring Device: Solinst
Date and Time: 9/9/07

Purge Device: peristaltic # 10738
Horiba # 1573

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9/9/07 Time: 1030	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: ____	Color / Odor / Comments
Method: Low Flow								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1005	0.125	20.35	0.233	7.52	4.16	335	0.0	13.30	Clear
1010	0.625	20.17	0.215	6.34	4.19	294	0.5	13.98	Clear
1015	1.125	20.03	0.214	6.97	4.19	300	20	14.27	Clear
1020	1.75	19.70	0.222	7.21	4.15	308	7.1	14.55	Clear
1025	2.125	19.72	0.215	7.16	4.17	298	16.8	14.73	Clear
1030	2.5	19.65	0.223	6.00	4.12	316	33.9	15.00	Clear

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
Cyanide	NaOH	250mL Poly	1
VOC	HCl	40mL VOA	3
SVOC	—	1L Amber	2
Explosives	—	1L Amber	2
Pest/PCBs	—	1L Amber	4
TAL Metals	HNO_3	500mL Poly	1
Dissolved TAL Metals	HNO_3	500 mL Poly	1
Perchlorate	—	250 mL Poly	1

Observations/Notes: Tubing set ~2' above bottom
Screen 9-19' BTOC (Well tag says TD as 15 and screen of 5-15')
Drawdown exceeds 1' → take out 3 vele volumes.

MS/MSD
Duplicate ID No.:
Signature(s):

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GROUNDWATER SAMPLING DATA SHEET

Client:	Navy	Project Number:	360362
Location:	Knox Trailer Park	Well ID:	MW06
Event:	Phase II ESI	Sample ID:	MR04-GW06-070C
Date:	9-12-07	Sampling Team:	J. Burton
Weather:	Cloudy, ~80°F		E. Must

Total Depth:	44.94	FT.(BTOC)	Measuring Device:	Solinst
Depth to water:	(-) 21.30	FT.(BTOC)	Date and Time:	9-12-07
Water Column:	23.64	FT.		
	(x) 0.163	GAL/FT.		
Well Volume:	3.85	GAL. x 3 = 11.55		
Total Purge Vol.:	12	GAL.		
Purge Device:	Proactive ~~[illegible]~~ Monsoon SB			

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-12-07 Time: 1655	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	19.69	0.565	0.00	13.04	-246	570	41.05	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1600	1.25	19.84	9.4	4.03	11.83	-149	307	28.55	Silty
1615	4	19.80	3.20	1.14	11.94	-160	802	35.33	
1630	7	19.92	1.45	0.28	11.86	-162	999*	40.10	
1645	10	19.87	0.574	0.00	11.91	-185	573	40.70	
1655	12	19.69	0.565	0.00	13.04	-246	670	41.05	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1 L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 mL Poly	1
Perchlorate	—	" "	1
TAL Metals / Dissolved Metals	HNO_3	500 mL Poly	2

Observations/Notes:
pump started @ 1555
screen = 40-45, pump inlet @ 42 ft
*error

MS/MSD	Duplicate ID No.:
Signature(s):	

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-6-07
Weather: Clear, Sunny, ~80°F

Project Number: 360362
Well ID: MW-07
Sample ID: MR04-GW07-07C
Sampling Team: J. Burton, E. Must

Total Depth: 20.07 FT.(BTOC)
Depth to water: (-) 12.82 FT.(BTOC)
Water Column: 7.25 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.18 GAL. 3.54
Total Purge Vol.: 3.625 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-6-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2'	0.163
4	0.653

SAMPLE DATA

	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Date: 9-6-07 Time: 1125 Method: 3 Vol	22.27	0.087	2.81	1.63	407	0.0*	15.40	

FIELD PARAMETERS

3% 10%

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1045	0.5	23.00	0.096	5.06	1.49	414	0.0	13.52	
1050	1.0	23.07	0.096	5.35	1.40	420	5.1	13.91	
1100	1.75	22.50	0.095	3.78	1.43	418	0.0*	14.69	
1110	2.625	22.11	0.092	3.24	1.73	400	0.0*	15.07	
1120	3.375	22.08	0.088	2.96	1.64	405	0.0*	15.33	
1125	3.625	22.27	0.087	2.81	1.63	407	0.0*	15.40	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCL	40 mL VOA	3
SVOCs	—	1L Amber	1
Explosive Residues	—	1L Amber	2
Pest./PCBs	—	1L Amber	4
TAL Metals / Cyanide	HNO_3	500 mL Poly	1
Perchlorate	—	250 mL Poly	1
Dissolved Metals	HNO_3	500 mL Poly	1

Observations/Notes:

pump started @ 1040

well screened from 17-7 ft, pump inlet set @ 11 ft

* error on turbidity - flashing "-10.0"

MS/MSD

Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-8-07
Weather: Clear, Sunny, ~75°F

Project Number: 360362
Well ID: MW08
Sample ID: MR04-GW08-07C
Sampling Team: J. Burton, E. Must

Total Depth: 22.22 FT.(BTOC)
Depth to water: (-) 11.94 FT.(BTOC)
Water Column: 10.28 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.68 GAL. x 3 = 5.04
Total Purge Vol.: 5.25 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-8-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-8-07 Time: 1030	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	20.53	0.077	0.34	2.72	366	5.5	12.09	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
0940	1.0	20.30	0.073	4.38	2.30	390	4.4	12.08	
0945	1.375	20.36	0.073	3.77	2.34	388	4.7	12.09	
0955	2.25	20.54	0.074	2.54	2.60	376	5.9	12.08	
1005	3.125	20.59	0.076	1.55	2.76	367	6.9	12.09	
1015	4.0	20.61	0.077	0.95	2.75	366	12.2	12.08	
1025	4.875	20.67	0.077	0.46	2.76	365	6.1	12.08	
1030	5.25	20.53	0.077	0.34	2.72	366	5.5	12.09	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 mL Poly	1
Perchlorate	—	" "	1
TAL Metals / Dissolved Metals	HNO_3	500 mL Poly	2

Observations/Notes:
start purge @ 0930
screen = 9-19 ft, pump inlet @ 13 ft

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9/12/07
Weather: clear, 84°

Project Number: 360362
Well ID: MW08
Sample ID: MR04-GW08-07C
Sampling Team: D. Seed / RDU
B. West / CCT

Total Depth: 22.22 FT.(BTOC)
Depth to water: (-) 12.05 FT.(BTOC)
Water Column: 10.17 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.65 GAL.
Total Purge Vol.: 3.5 GAL.

Purge Device: Peristaltic

Measuring Device: Geopump
Date and Time: 9/12/07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9/12/07 Time: 1500	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: Low flow	17.80	0.099	0.86	3.88	338	84.1	12.1	

FIELD PARAMETERS

	Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
	1420	0								Start purge
.5	1425	~~0.25~~	17.87	0.100	1.40	4.09	276	75.4	12.09	
1.0	1430	~~0.50~~	17.86	0.102	1.49	3.94	297	72.9	12.1	
1.5	1440	~~1.00~~	17.81	0.107	1.11	3.88	317	63.8	12.1	
2.0	1445	~~1.25~~	17.81	0.104	0.99	3.87	324	76.5	12.1	
2.5	1450	~~1.50~~	17.85	0.101	0.90	3.86	331	83.2	↓	
3.0	1455	~~1.75~~	17.85	0.099	0.82	3.87	334	86.7		
3.5	1500	~~2.00~~	17.80	0.099	0.86	3.88	338	84.1		
	~~1505~~	~~2.25~~								

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
Explosives	—	~~[illegible]~~ 1 Liter Amber	2

Observations/Notes:

Screen = 9-19 ft, pump inlet at 14 ft

MS/MSD
Duplicate ID No.:
Signature(s):

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Sheet 1 of 2

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: MCB Camp Lejeune
Event: KTP Sampling
Date: 9/8/07
Weather: Sunny 80's

Project Number: 360362
Well ID: MR04-MW09
Sample ID: MR04-MW09-07C
Sampling Team: JB EM

Total Depth: 43 FT.(BTOC)
Depth to water: (-) 11.82 FT.(BTOC)
Water Column: 31.18 FT.
(x) 0.163 GAL/FT.
Well Volume: 5.08 GAL.
Total Purge Vol.: GAL.

Purge Device: peristaltic # 05975
Horiba #

Measuring Device: Solinst #2753
Date and Time: 950 9/8/07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method:								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
0950	0	19.60	0.309	5.09	5.38	175	835	11.82	Clear
1000	0.75	18.50	0.276	2.12	5.23	149	58.6	16.61	Clear
1010	1.375	18.59	0.248	1.97	5.16	135	68.5	17.12	Clear
1020	2.125	18.25	0.245	1.40	5.03	135	103	17.98	Clear
1030	3.125	18.11	0.240	1.14	5.04	132	135	18.96	Clear
1045	4.75	18.21	0.237	1.04	5.02	130	142	19.95	Clear
1055	5.75	18.08	0.234	0.69	5.00	130	150	20.12	Clear
1105	6.875	18.05	0.226	0.24	5.00	130	139	20.35	Clear
1120	8.5	17.98	0.222	0.29	5.03	127	149	20.60	Clear
1130	10	17.99	0.216	0.22	5.04	125	161	20.71	Clear
1140	11.25	18.03	0.212	0.20	5.05	125	168	20.78	Clear

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
Cyanide	NaOH	250mL Poly	1
VOC	HCl	40mL VOA	3
SVOC	—	1L Amber	2
Pest / PCBs	—	1L Amber	4
TAL Metals	HNO_3	500 mL Poly	1
Dissolved Metals	HNO_3	500 mL Poly	1
Explosives	—	1L Amber	2
Perchlorate	—	250 mL Poly	1

Observations/Notes:
Tubing Set ~2ft above bottom of well
Flow rate between 300 & 500 mL
Greater than 1' of drawdown, therefore switch from low flow to automatically taking 3 well volumes.

MS/MSD
Duplicate ID No.:
Signature(s):

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GROUNDWATER SAMPLING DATA SHEET

Client:
Location:
Event:
Date:
Weather:

See Sheet 1

Project Number: 360362
Well ID: MR04-MW09
Sample ID: MR04-GW09-07C
Sampling Team: JB EM

Total Depth: — FT.(BTOC)
Depth to water: (-) FT.(BTOC)
Water Column: FT.
(x) GAL/FT.
Well Volume: GAL.
Total Purge Vol.: GAL.

Measuring Device: See Sheet 1
Date and Time:

Purge Device:

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9/8/07 Time: 1215	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other:	Color / Odor / Comments
Method: Low Flow								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1150	12.5	17.91	0.210	0.17	5.06	124	175	20.80	Clear
1200	13.75	17.91	0.209	0.16	5.07	124	185	20.80	Clear
1210	15.00	17.78	0.207	0.19	5.10	123	186	20.79	Clear
1215	15.5	17.81	0.206	0.19	5.11	122	194	20.80	Clear

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
See Sheet 1			

Observations/Notes:

MS/MSD
Duplicate ID No.:
Signature(s):

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GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-6-07
Weather: Clear, Humid, ~75°F

Project Number: 360362
Well ID: MR04-MW10
Sample ID: MR04-GW10-070
Sampling Team: J. Burton, E. Must

Total Depth: 23.52 FT.(BTOC)
Depth to water: (-) 16.66 FT.(BTOC)
Water Column: 6.86 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.12 GAL. x 3 = 3.36
Total Purge Vol.: 3.5 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst Water level Indicator
Date and Time: 9-6-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-6-07 Time: 0915	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Hol	21.31	0.191	0.00	2.21	365	12.9	16.76	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm 3%	DO mg/L 10%	pH SU 0.1	ORP mV ±10	Turbidity NTU 10%	Other: DTW	Color / Odor / Comments
0835	0.5	21.44	0.230	0.86	2.82	318	8.8		
0845	1.125	21.43	0.207	0.41	2.45	343	0.0	16.70	
0855	1.875	21.41	0.197	0.12	2.51	341	2.1	16.71	
0900	2.25	21.26	0.193	0.03	2.32	354	10.1	16.72	
0910	3.125	21.26	0.193	0.00	2.24	362	10.3	16.75	
0915	3.5	21.31	0.191	0.00	2.21	365	12.9	16.76	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCL	40 mL VOAs	3
SVOCs	—	1 L Amber	1
Explosive Residues	—	1 L Amber	2
Pest. / PCBs	—	1 L Amber	4
TAL Metals / Cyanide	HNO_3	500 mL Poly	1
Perchlorate	—	250 mL Poly	1
Dissolved Metals	HNO_3	500 mL Poly	1

Observations/Notes: pump started @ 0830
screen = 11-21 ft, pump inlet @ 15 ft

MS/MSD | Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	Navy	Project Number:	360362
Location:	Knox Trailer Park	Well ID:	MW-11
Event:	Phase II ESI	Sample ID:	MR04-GW11-07C
Date:	9-9-07	Sampling Team:	J. Burton
Weather:	Rain, ~80°F		E. Must

Total Depth:	26.81	FT.(BTOC)	Measuring Device:	Solinst
Depth to water:	(-) 18.33	FT.(BTOC)	Date and Time:	9-9-07
Water Column:	8.48	FT.		
	(x) 0.163	GAL/FT.		
Well Volume:	1.38	GAL. x 3 = 4.14		
Total Purge Vol.:	4.5	GAL.		
Purge Device:	Peristaltic			

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-9-07 Time: 1010	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	20.16	0.061	1.51	2.52	403	30.1	18.76	
		3%	10%			10%		

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
0925	0.5	20.05	0.064	4.50	2.33	405	28.2	18.64	
0935	1.0	20.05	0.060	3.77	2.44	402	10.1	18.71	
0940	1.5	20.05	0.060	3.66	2.47	402	15.1	18.71	
0950	2.5	20.04	0.061	2.54	2.47	405	21.5	18.73	
1000	3.5	20.14	0.061	1.55	2.54	404	28.5	18.75	
1010	4.5	20.16	0.061	1.51	2.52	403	30.1	18.76	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL		
SVOC	—		
Pest / PCB	—		
Explosives	—		
Cyanide	NaOH		
Perchlorate	—		
TAL Metals / Dissolved Metals	HNO_3		

Observations/Notes:

pump started @ 0920

screen = 17-27 ; pump inlet = 21 ft

MS/MSD	Duplicate ID No.:
Signature(s):	

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-12-07
Weather: Cloudy, ~80°F

Project Number: 360362
Well ID: MW12
Sample ID: MR04-GW12-07C
Sampling Team: J. Burton, E. Must

Total Depth: 50.00 FT.(BTOC)
Depth to water: (-) 18.11 FT.(BTOC)
Water Column: 31.89 FT.
(x) 0.163 GAL/FT.
Well Volume: 5.19 GAL. 15.57
Total Purge Vol.: 15.75 GAL.

Purge Device: Proactive Monsoon

Measuring Device: Solinst
Date and Time: 9-12-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-12-07 / Time: 9-12-07	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 1415	21.0	0.250	0.00	10.26	-89	16.9	45.65	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	JB
1250	0.75	20.15	0.444	1.74	9.01	7	117.0	24.96	
1300	1.50	20.44	0.357	1.23	9.59	-26	88.5	24.79	
1315	4.5	20.41	0.343	0.77	10.19	-64	75.7	33.55	
1330	7.5	20.61	0.311	0.64	10.29	-75	63.0	43.02	
1345	10.5	20.67	0.259	0.00	10.38	-85	36	45.18	
1400	13.5	21.00	0.243	0.00	10.21	-80	21.8	45.51	
1415	15.75	21.0	0.250	0.00	10.26	-89	16.9	45.65	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1 L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 mL Poly	1
Perchlorate	—	" "	1
TAL Metals/Diss Metals	HNO_3	500 mL Poly	2

Observations/Notes: pump started @ [redacted] 1245
well screen = 45-50, pump inlet @ 47 ft

MS/MSD
Duplicate ID No.:
Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II RSI
Date: 9-8-07
Weather: Clear, Sunny, ~84°F

Project Number: 360362
Well ID: MW-13
Sample ID:
Sampling Team: MR04-GW13-07C
J. Burton / E. Must

Total Depth: 27.93 FT.(BTOC)
Depth to water: (-) 21.59 FT.(BTOC)
Water Column: 6.34 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.03 GAL. x 3 = 3.09
Total Purge Vol.: 3.5 GAL.

Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-8-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-8-07 Time: 1705	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: 3 Vol	17.77	0.060	0.69	4.11	268	6.1	21.93	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1630	0.5	17.95	0.059	0.80	4.38	270	10.2	21.89	
1635	1.0	17.87	0.059	0.76	4.28	275	9.1	21.89	
1645	1.5	17.80	0.061	0.90	4.21	277	6.4	21.91	
1655	2.5	17.78	0.060	0.74	4.16	266	6.6	21.92	
1705	3.5	17.77	0.060	0.69	4.11	268	6.1	21.93	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 mL VOA	3
SVOC	—	1 L Amber	2
Pest. / PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 mL Poly	1
TAL Metals / Dissolved Metals	HNO_3	500 mL Poly	2
Perchlorate	—	250 mL Poly	1

Observations/Notes:
pump started = 1625
screen = 15-25, inlet @ 19 ft

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: Navy
Location: Knox Trailer Park
Event: Phase II ESI
Date: 9-8-07
Weather: Clear, Sunny, ~ 87°F

Project Number: 360362
Well ID: MW-14
Sample ID: MR04-GW14-07C
Sampling Team: J. Burton, E. Must

Total Depth: 17.35 FT.(BTOC)
Depth to water: (-) 7.49 FT.(BTOC)
Water Column: 9.86 FT.
(x) 0.163 GAL/FT.
Well Volume: 1.61 GAL. x3 = 4.83
Total Purge Vol.: 4.25 GAL.
Purge Device: Peristaltic

Measuring Device: Solinst
Date and Time: 9-8-07

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9-8-07 Time: 1530	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
Method: Low Flow	19.39	0.047	2.02	4.12	272	4.5	7.73	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1450	0.5	19.76	0.048	2.54	4.52	216	21.7	7.68	
1455	1.0	19.45	0.047	2.19	4.36	232	6.2	7.69	
1505	2.0	19.52	0.048	2.01	4.17	255	4.8	7.72	
1515	2.75	19.41	0.047	2.02	4.12	264	6.7	7.73	
1520	3.25	19.36	0.048	2.02	4.11	268	5.3	7.73	
1530	4.25	19.39	0.047	2.02	4.12	272	4.5	7.73	

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
VOC	HCL	40 ml VOA	3
SVOC	—	1 L Amber	2
Pest/PCB	—	" "	4
Explosives	—	" "	2
Cyanide	NaOH	250 ml Poly	1
Perchlorate	—	" "	1
TAL metals / Dissolved Metals	HNO_3	500 ml Poly	2

Observations/Notes: pump started @ 1442
screen = 5-15 ft, pump set @ 9 ft

MS/MSD
Duplicate ID No.:
Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: MCB Camp Lejeune
Event: KTP Sampling
Date: 9/8/07
Weather: Sunny 80s

Project Number: 360 362
Well ID: MR04-MW15
Sample ID: MR04-GW15-07C
Sampling Team: JB EM

Total Depth: 36.01 FT.(BTOC)
Depth to water: (-) 7.07 FT.(BTOC)
Water Column: 28.94 FT.
(x) 0.163 GAL/FT.
Well Volume: 4.72 GAL.
Total Purge Vol.: 14.25 GAL.

Purge Device: peristaltic #05975
Horiba #7170.

Measuring Device: Solinst # 2753
Date and Time: 9/8/07 1450

Well Dia. (inches)	Volume (gallons/foot)
1	0.041
1.25	0.064
2	0.163
4	0.653

SAMPLE DATA

Date: 9/8/07 Time: 1700	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: ____	Color / Odor / Comments
Method: See Notes								

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Other: DTW	Color / Odor / Comments
1450	0.25	20.94	0.279	1.64	12.13	-184	195	9.16	Clear
1500	1	20.22	0.272	0.38	11.73	-178	98	10.60	Clear
1510	2.5	19.55	0.252	0.00	11.62	-179	6.6	11.63	Clear
1525	4.25	19.39	0.217	0.00	12.38	-233	4.8	11.90	Clear
1540	6.25	19.32	0.203	0.00	12.43	-242	2.9	11.86	Clear
1550	7.5	19.28	0.201	0.00	12.47	-248	2.9	11.85	Clear
1610	10	19.20	0.197	0.00	12.39	-247	3.7	11.80	Clear
1620	11.25	19.62	0.198	0.00	12.40	-254	33.2	11.79	Clear
1640	12.75	19.72	0.205	0.00	12.37	-252	31.5	11.79	Clear
1700	14.25	19.21	0.201	0.00	12.31	-249	32.6	11.75	Clear

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements	No. of containers
Cyanide (NaOH)		250 Poly	1
VOCs	HCl	40mL VOAs	
SVOCs	—	1L Amber	2
Pest/PCBs	—	1L Amber	4
Explosives	—	1L Amber	2
Dissolved Metals	HNO_3	500mL Poly	1
TAL metals	HNO_3	500mL Poly	1
Perchlorate	—	250 Poly	1

Observations/Notes:
Tubing set ~3' off bottom of well
Greater than 1' of drawdown, therefore switch from low flow to taking an automatic 3 well volumes.

MS/MSD
Duplicate ID No.:
Signature(s):

Appendix G
Data Validation Summary Reports

Phase I Data Validation Summary Report

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Data Review,* 2004
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	603106 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SS04-0-2	603106-001	Soil	X	X	X
MR04-SS04-0-2DL	603106-001DL	Soil			X
MR04-SS10-0-2	603106-002	Soil	X	X	X
MR04-SS08-0-2	603106-003	Soil	X	X	X
MR04-SS01-0-4	603106-004	Soil	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X	X	X
MR04-SS06-2-4	603106-005	Soil	X	X	X
MR04-SS06-2-4RE	603106-005RE	Soil		X	
MR04-EB1-031406	603106-006	Water	X	X	X
MR04-TB1-031406	603106-007	Water	X		
HOLDING BLANK	603106-008	Water	X		
MR04-FB1-031605	603128-001	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Explosives	Metals	Cyanide
MR04-SS04-0-2	603106-001	Soil	X	X	X
MR04-SS10-0-2	603106-002	Soil	X	X	X
MR04-SS08-0-2	603106-003	Soil	X	X	X
MR04-SS01-0-4	603106-004	Soil	X	X	X
MR04-SS01-0-4MD	603106-004MD	Soil		X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X		

Client Sample #	Lab Sample #	Matrix	Explosives	Metals	Cyanide
MR04-SS06-2-4	603106-005	Soil	X	X	X
MR04-EB1-031406	603106-006	Water	X	X	X
MR04-FB1-031605	603128-001	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Perchlorate	TPH-DRO	TPH-GRO
MR04-SS04-0-2	603106-001	Soil	X	X	X
MR04-SS10-0-2	603106-002	Soil	X	X	X
MR04-SS08-0-2	603106-003	Soil	X	X	X
MR04-SS01-0-4	603106-004	Soil	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X	X	X
MR04-SS06-2-4	603106-005	Soil	X	X	X
MR04-EB1-031406	603106-006	Water	X	X	
MR04-FB1-031605	603128-001	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	O&G	TOC	TOX
MR04-SS04-0-2	603106-001	Soil	X	X	X
MR04-SS10-0-2	603106-002	Soil	X	X	X
MR04-SS08-0-2	603106-003	Soil	X	X	X
MR04-SS01-0-4	603106-004	Soil	X	X	X
MR04-SS01-0-4DL	603106-004DL	Soil		X	
MR04-SS01-0-4MD	603106-004MD	Soil	X	X	
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	
MR04-SS06-2-4	603106-005	Soil	X	X	X
MR04-EB1-031406	603106-006	Water	X	X	X
MR04-FB1-031605	603128-001	Water	X	X	X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK
Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 603106 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB1-031406, MR04-FB1-031605, MR04-TB1-031406, MR04-SS01-0-4, MR04-SS04-0-2, MR04-SS06-2-4, MR04-SS08-0-2, MR04-SS10-0-2

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 44.0% for trichlorobenzene in the standards analyzed on 3/8/06 on instrument HP#E, which exceeded the 30% QC limit. As the associated samples were the trip blank and equipment blank, no action was required.

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the associated sample was the holding blank, no action was required.

Continuing Calibration:

The Percent Difference (%D) was 49.6% for acetone in the standards analyzed on 3/23/06 at 15:01 on instrument HP#A, which exceeded the 25% QC limit. As the associated sample was the holding blank, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:
There were no detections in the equipment blank, MR04-EB1-031406, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB1-031406, associated with this fraction of the SDG. No action was required.

Holding Blank:

There were no detections in the holding blank, HOLDING BLANK, associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SS01-0-4 for soil analyses. The Percent Recovery (%R) was 58% for chlorobenzene in the MS, which was below the 60-133% QC limits.
MS / MSD analyses were not submitted for the aqueous sample. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no of field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All results for atrazine in the soil and water SDG samples, which consisted entirely of non-detects, were rejected (R) based on low Relative Response Factors in the continuing calibrations.

Based on internal standard criteria, the initial analysis of SDG sample MR04-SS06-2-4 was considered by the validator to be of preferable data quality to the reanalysis. The reanalysis Form I was rejected (R) based on redundancy.

All other laboratory data were acceptable with qualifications.

MAJOR ISSUES

I.) Continuing Calibration:

The Relative Response Factor (RRF) was 0.042 for atrazine in the standards analyzed on 3/21/06 at 06:26 on instrument #HT, which was below the 0.050 QC limit. As the result for atrazine in the associated sample, MR04-EB1-031406, was a non-detect, the result was rejected (R).

The Relative Response Factor (RRF) was 0.043 for atrazine in the standards analyzed on 3/23/06 at 06:51 on instrument #H, which was below the 0.050 QC limit. As the results for atrazine in all SDG soil samples consisted entirely of non-detects, these results were rejected (R).

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 35.3% for benzylaldehyde in the standard analyzed on 1/20/06 on instrument #H, which exceeded the 30% QC limit. As the results for this compound in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 3/21/06 at 06:26 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	66.3%
caprolactam	49.2%
2-nitroaniline	42.9%
4-chlorophenyl-phenylether	27.0%
atrazine	78.3%
pentachlorophenol	32.5%

As the associated sample was the equipment, MR04-EB1-031406, no action was required.

The Percent Differences (%D's) in the standards analyzed on 3/23/06 at 06:51 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	64.5%
caprolactam	50.6%
2-nitroaniline	39.1%
4-chlorophenyl-phenylether	26.7%
atrazine	77.8%
pentachlorophenol	30.3%

The results for these compounds in all SDG soil samples, which consisted entirely of non-detects, were flagged as estimated (UJ), except for atrazine. The results for atrazine were previously rejected based on continuing calibration criteria, so no further action was required.

The Percent Differences (%D's) in the standards analyzed on 3/23/06 at 19:34 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	69.9%
caprolactam	50.9%
2-nitroaniline	50.4%
4-chlorophenyl-phenylether	29.6%
atrazine	79.4%
pentachlorophenol	33.0%

As the associated sample, MR04-SS06-0-4RE, was rejected (R) based on redundancy, no further action was required.

Please also see the Major Issues section for this fraction of the SDG.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this fraction of the SDG. No action was required.

Field Blank:

Bis(2-ethylhexyl)phthalate was detected at 180 ug/L (6.0 ug/kg) in field blank, MR04-FB1-031605. All results for this compound in the SDG samples less than 10X the blank amount (60.0 ug/kg) were flagged as undetected with results less than the CRQL being raised to the CRQL.

Tentatively Identified Compounds (TICs):

Hexadecanoic acid was detected at 21.7 ug/L in method blank BLK80716. As the only associated sample was the equipment blank, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. The Percent Recoveries (%Rs) were 116% for 2-chlorophenol and 111% for phenol in LCS BKS80716, which exceeded the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SS01-0-4 for soil analyses. The Percent

Recoveries (%Rs) were 119% and 123% for pentachlorophenol in the MS and MSD, respectively, which exceeded the 17-109% QC limits. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

Batch QC data were submitted for aqueous analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

The Percent Recovery (%R) was 49.2% for perylene-d12 in SDG sample MR04-SS06-2-4RE, which was below the 50-200% QC limits. As this sample was rejected based on data redundancy, no further action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Based on internal standard criteria, the initial analysis of SDG sample MR04-SS06-2-4 was considered by the validator to be of preferable data quality to the reanalysis. The reanalysis Form I was rejected (R) based on redundancy.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

The Percent Breakdown (%B) of endrin was 20.3% on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 20% QC limit. Since there were no positive results for endrin, endrin aldehyde, or endrin ketone in the associated SDG sample, no action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 50.0% for gamma-BHC in the standards analyzed on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 25% QC limit. As no results were reported for gamma-BHC form this column, no action was required.

The Percent Difference (%D) was 27.5% for 4,4'-DDT in the standards analyzed on 3/30/06 at 08:20 on the primary column of instrument GC-W, which exceeded the 25% QC limit. As there were no results reported for 4,4'-DDT associated with this continuing calibration standard, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this fraction of the SDG. No action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.010 ug/L (0.003 mg/kg) and 0.020 ug/L (0.007 mg/kg), respectively, in the field blank, MR04-FB1-031605, associated with this SDG. As all positive results for heptachlor were greater than 5X the blank amount (0.015 mg/kg), and as the results for heptachlor epoxide in the SDG samples consisted entirely of non-detects, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG soil sample MR04-SS01-0-4 for the soil analyses. Batch QC data were submitted for the aqueous analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

The Percent Recoveries (%Rs) were 76% for dieldrin and 71% for 4,4'-DDT in the GPC cleanup, which were below the 80-110 QC limits. As there were not interferences noted in the sample chromatographies, based on professional judgment, no action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The column Percent Differences (%Ds) exceeded the 70% QC limit for the following samples:

Sample	Compound	%D
MR04-SS04-0-2	endrin aldehyde	383%
MR04-SS10-0-2	endrin ketone	233%
MR04-SS01-0-4	4,4'-DDD	157%
MR04-SS04-0-4MSD	4,4'-DDD	111%

All positive results for these compounds in the above samples, with the exception of the MSD which was a QC sample, were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for 4,4'-DDE in the initial analysis of sample MR04-SS04-0-2 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for this compound on the initial analysis Form I was rejected (R). The result for 4,4'-DDE on the dilution analysis Form I was of preferable data quality. The Form I for the dilution analysis was rejected (R) based on redundancy, except for 4,4'-DDE.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) were 198%, 330% and 296% for 4-nitroaniline in SDG samples MR04-SS01-0-4, MR04-SS08-0-2, and MR04-SS10-0-2, respectively, which exceeded the 31-129% QC limits. All positive and non-detect results in these samples were flagged as estimated (J) and (UJ), respectively.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG soil sample MR04-SS01-0-4 for the soil analyses. All MS / MSD criteria were met. No action was required.

MS / MSD data were not submitted for the aqueous analyses. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.
CCB4	aluminum	70.38 ug/L
MR04-FB1-031605	barium	0.48 ug/L
MR04-EB1-031406	beryllium	0.29 ug/L
MR04-EB1-031406	calcium	164 ug/L
PBS	chromium	0.22 mg/kg
CCB4	iron	58.10 ug/L
CCB4	magnesium	148.51 mg/L
CCB4	manganese	0.42 ug/L
CCB4	potassium	18.06 ug/L
PBS	sodium	62.8 mg/kg
MR04-EB1-031406	zinc	5.2 ug/L

MR04-EB1-031406 = Equipment Blank, CCB = Continuing Calibration Blank,
PBS = Preparation Blank (Soil), MR04-FB1-031605= Field Blank

PBS - As the PBS values for chromium and sodium were between the MDL and the CRDL, and the results for chromium and sodium in the SDG samples were greater than the CRDL, no action was required.

As the field blank and equipment blank values for barium, beryllium, calcium, and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

As the CCB values for aluminum, iron, magnesium, manganese, and potassium were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

The negative results listed below were the highest absolute value negative result for the blanks associated with this SDG.

Blank ID	Analyte	Max. Conc.
PBS	arsenic	-0.70 mg/kg
CCB5	copper	-1.2 ug/L
PBS	thallium	-1.1 mg/kg

The PBS values for thallium and arsenic were between the negative MDL and the negative CRDL. All positive results for arsenic in the SDG samples greater than the CRDL (2.0 mg/kg), but less than 10X the CRDL (20 mg/kg) were flagged as estimated low (J-). All non-detects for arsenic in the SDG samples

were flagged as estimated (UJ). As the results for thallium in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

The CCB value for copper was between the MDL and the CRDL. As the results for copper in the SDG samples were positive, but less than the CRDL, using professional judgment, no action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

antimony	3.8 ug/L
barium	1.8 ug/L
chromium	1.3 ug/L
copper	0.74 ug/L
manganese	14.0 ug/L
nickel	2.1 ug/L
zinc	25.6 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

silver	-0.72 ug/L
sodium	-380 ug/L
thallium	-2.4 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG sample MR04-SS01-0-4. All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Duplicate Sample Analyses were performed on SDG sample MR04-SS01-0-4 for soil samples. Batch QC data were submitted for aqueous MD analyses. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG sample MR04-SS01-0-4 for soil samples. The Percent Recovery (%R) was 62% for antimony. A post digestion spike was analyzed for antimony with a Percent Recovery (%R) of 103%. All positive and non-detect results for antimony in the soil SDG samples were flagged as estimated (J) and (UJ), respectively.

Batch QC data were submitted for the aqueous analyses. All MS criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:
There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Matrix Duplicate analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. Batch QC data were submitted for aqueous MD analyses. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Matrix Spike analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. Batch QC data were submitted for aqueous MS analyses. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SS01-0-4 for the soil analyses. All MS / MSD criteria were met. No action was required.

Batch QC data were submitted for MS / MSD analysis for aqueous samples. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SS01-0-4 for the soil analyses. All MS / MSD criteria were met. No action was required.

MS / MSD analyses were not performed for aqueous samples. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SS01-0-4 for the soil analyses. All MS / MSD criteria were met. No action was required.

MS / MSD analyses were not performed for aqueous samples. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:
There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. Batch QC data were submitted for MD aqueous analysis. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. Batch QC data were submitted for MS aqueous analysis. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:
There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. MD analysis was not performed for aqueous samples. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-SS01-0-4 for soil analyses. MS analysis was not performed for aqueous samples. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for TOC in the initial analysis of SDG sample MR04-SS01-0-4 exceeded the linear calibration range. A 4X dilution analysis was performed for this sample with all calibration criteria being met. The Form I reflects the concentration corrected for the dilution amount. No action was required.

The MS / MD analyses for SDG sample MR04-SS01-0-4 were performed at a 4X dilution. The reported results have been corrected for the dilution amount. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB1-031406, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. As the results for TOX in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

VI.) Matrix Spike (MS):

MS analysis was not performed for this fraction of the SDG. As the results for TOX were previously flagged based on MD criteria, no further action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 2004
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	603111 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SS09-2-4	603111-001	Soil	X	X	X
MR04-SS05-0-4	603111-002	Soil	X	X	X
MR04-SS05-0-4D	603111-003	Soil	X	X	X
MR04-SS07-4-6	603111-004	Soil	X	X	X
MR04-SS03-8-12	603111-005	Soil	X	X	X
MR04-SS03-8-12DL	603111-005DL	Soil			X
MR04-SS02-0-2	603111-006	Soil	X	X	X
MR04-SS02-0-2DL	603111-006DL	Soil			X
MR04-TB031505	603111-007	Water	X		
HOLDING BLANK	603111-008	Water	X		
MR04-FB1-031605	603128-001	Water	X	X	X
MR04-EB2-031605	603128-002	Water	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	Explosives	Metals	Cyanide
MR04-SS09-2-4	603111-001	Soil	X	X	X
MR04-SS05-0-4	603111-002	Soil	X	X	X
MR04-SS05-0-4D	603111-003	Soil	X	X	X
MR04-SS07-4-6	603111-004	Soil	X	X	X
MR04-SS03-8-12	603111-005	Soil	X	X	X
MR04-SS02-0-2	603111-006	Soil	X	X	X
MR04-FB1-031605	603128-001	Water	X	X	X
MR04-EB2-031605	603128-002	Water	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X		X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X		X
MR04-SD01-06AMS	604010-009MS	Soil		X	
MR04-SD01-06AMSD	604010-009MSD	Soil		X	

Client Sample #	Lab Sample #	Matrix	Perchlorate	TPH-DRO	TPH-GRO
MR04-SS09-2-4	603111-001	Soil	X	X	X
MR04-SS05-0-4	603111-002	Soil	X	X	X
MR04-SS05-0-4D	603111-003	Soil	X	X	X
MR04-SS07-4-6	603111-004	Soil	X	X	X
MR04-SS03-8-12	603111-005	Soil	X	X	X
MR04-SS02-0-2	603111-006	Soil	X	X	X
MR04-FB1-031605	603128-001	Water	X	X	X
MR04-EB2-031605	603128-002	Water	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	X
MR04-SS01-0-4MSD	603106-004MSD	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	O&G	TOC	TOX
MR04-SS09-2-4	603111-001	Soil	X	X	X
MR04-SS05-0-4	603111-002	Soil	X	X	X
MR04-SS05-0-4D	603111-003	Soil	X	X	X
MR04-SS07-4-6	603111-004	Soil	X	X	X
MR04-SS03-8-12	603111-005	Soil	X	X	X
MR04-SS02-0-2	603111-006	Soil	X	X	X
MR04-FB1-031605	603128-001	Water	X	X	X
MR04-EB2-031605	603128-002	Water	X	X	X
MR04-SS01-0-4MS	603106-004MS	Soil	X	X	
MR04-SS01-0-4MSD	603106-004MSD	Soil	X	X	

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK

Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 603111 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB2-031605, MR04-FB1-031605, MR04-TB031505, MR04-SS02-0-2, MR04-SS03-8-12, MR04-SS05-0-4, MR04-SS05-0-4D, MR04-SS07-4-6, MR04-SS09-2-4, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 44.0% for trichlorobenzene in the standards analyzed on 3/8/06 on instrument HP#E, which exceeded the 30% QC limit. As the associated sample was the trip blank, no action was required.

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the associated sample was the holding blank, no action was required.

Continuing Calibration:

The Percent Difference (%D) was 49.6% for acetone in the standards analyzed on 3/23/06 at 15:01 on instrument HP#A, which exceeded the 25% QC limit. As the associated sample was the holding blank, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB031505, associated with this fraction of the SDG. No action was required.

Holding Blank:

There were no detections in the holding blank associated with this fraction of the SDG. No action was required

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. The Percent Recovery (%R) was 58% for chlorobenzene in the MS, which was below the 60-133% QC limits. Data qualification based on MS / MSD analyses were not required. No action was taken.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

The results for atrazine in the associated SDG samples, which consisted entirely of non-detects, were rejected (R) based on low Relative Response Factors in the continuing calibrations. The associated samples were MR04-SS09-2-4, MR04-SS05-0-4, MR04-SS05-0-4D, MR04-SS02-0-2, MR04-SS03-8-12, MR04-FB1-031506, and MR04-EB2-031605.

All other laboratory data were acceptable with qualifications.

MAJOR ISSUES

I.) Continuing Calibration:

The Relative Response Factor (RRF) was 0.043 for atrazine in the standards analyzed on 3/23/06 at 06:51 on instrument #H, which was below the 0.050 QC limit. As the results for atrazine in the associated SDG samples consisted entirely of non-detects, these results were rejected (R). The associated samples were MR04-SS09-2-4, MR04-SS05-0-4, and MR04-SS05-0-4D.

The Relative Response Factor (RRF) was 0.040 for atrazine in the standards analyzed on 3/23/06 at 19:34 on instrument #H, which was below the 0.050 QC limit. As the result for atrazine in the associated sample, MR04-SS02-0-2 and MR04-SS03-8-12, were a non-detects, the results were rejected (R).

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 35.3% for benzylaldehyde in the standard analyzed on 1/20/06 on instrument #H, which exceeded the 30% QC limit. As the results for this compound in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 3/23/06 at 06:51 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	64.5%
caprolactam	50.6%
2-nitroaniline	39.1%
4-chlorophenyl-phenylether	26.7%
atrazine	77.8%
pentachlorophenol	30.3%

The results for these compounds in the associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ), except for atrazine. The results for atrazine were previously rejected based on continuing calibration criteria, so no further action was required. The associated samples were MR04-SS09-2-4, MR04-SS05-0-4, and MR04-SS05-0-4D.

The Percent Differences (%D's) in the standards analyzed on 3/23/06 at 19:34 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	69.9%
caprolactam	50.9%
2-nitroaniline	50.4%

Compound	%D
4-chlorophenyl-phenylether	29.6%

atrazine	79.4%
pentachlorophenol	33.0%

The results for these compounds in the associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ), except for atrazine. The results for atrazine were previously rejected based on continuing calibration criteria, so no further action was required. The associated samples were MR04-SS02-0-2 and MR04-SS03-8-12.

Please also see the Major Issues section for this fraction of the SDG.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Bis(2-ethylhexyl)phthalate was detected at 26 ug/L (0.87 ug/kg) in equipment blank, MR04-FB1-031605. As the results for this compound were flagged based on the field blank criteria, no action was required.

Field Blank:

Bis(2-ethylhexyl)phthalate was detected at 180 ug/L (6.0 ug/kg) in field blank, MR04-FB1-031605. All results for this compound in the SDG samples less than 10X the blank amount (60.0 ug/kg) were flagged as undetected with results less than the CRQL being raised to the CRQL.

Tentatively Identified Compounds (TICs):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. The Percent Recoveries (%Rs) were 119% and 123% for pentachlorophenol in the MS and MSD, respectively, which exceeded the 17-

109% QC limits. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

Batch QC data were submitted for aqueous analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. After flagging for blank criteria, there were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

The Percent Breakdown (%B) of endrin was 20.3% on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 20% QC limit. Since there were no positive results for endrin, endrin aldehyde, or endrin ketone in the associated SDG sample, no action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 50.0% for gamma-BHC in the PEM-510 standards analyzed on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 25% QC limit. As no results were reported for gamma-BHC form this column, no action was required.

The Percent Difference (%D) was 27.5% for 4,4'-DDT in the INDAM-507 standards analyzed on 3/30/06 at 08:20 on the primary column of instrument GC-W, which exceeded the 25% QC limit. The positive result for 4,4'-DDT in the associated SDG sample, MR04-SS02-0-2DL, was flagged as estimated (J). As the result for this compound in the other associated sample was a non-detect, no further action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

Heptachlor was detected at 0.020 ug/L (0.007 mg/kg) in the equipment, MR04-EB2-031605, associated with this SDG. As all positive results for heptachlor in the SDG samples were greater than 5X the blank amount (0.035 mg/kg), no action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.010 ug/L (0.003 mg/kg) and 0.020 ug/L (0.007 mg/kg), respectively, in the field blank, MR04-FB1-031605, associated with this SDG. As all positive results for heptachlor were greater than 5X the blank amount (0.015 mg/kg), and as the results for heptachlor epoxide in the SDG samples consisted entirely of non-detects, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

The Percent Recoveries (%Rs) were 76% for dieldrin and 71% for 4,4'-DDT in the GPC cleanup, which were below the 80-110 QC limits. As there were not interferences noted in the sample chromatographies, based on professional judgment, no action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The column Percent Differences (%Ds) exceeded the 70% QC limit for the following samples:

Sample	Compound	%D
MR04-SS05-0-4D	4,4'-DDE	92.3%
MR04-SS07-4-6	dieldrin	159%
	endrin	115%
	4,4'-DDT	165%

All positive results for these compounds in the above samples were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for 4,4'-DDE in the initial analysis of sample MR04-SS03-8-12 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for this compound on the initial analysis Form I was lined through by the validator and replaced with the dilution analysis result. The dilution analysis Form I was then rejected (R) based on redundancy.

The result for 4,4'-DDE and 4,4'-DDT in the initial analysis of sample MR04-SS02-0-2 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The results for these compounds on the initial analysis Form I was lined through by the validator and replaced with the dilution analysis results. The dilution analysis Form I was then rejected (R) based on redundancy.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.
CCB4	aluminum	69.44 ug/L
MR04-FB1-031605	barium	0.48 ug/L
CCB4	cadmium	0.52 ug/L
PBS	calcium	20.2 mg/kg
PBS	chromium	0.22 mg/kg
CCB4	iron	45.69 ug/L
CCB4	magnesium	103.13 mg/L
CCB2	manganese	0.46 ug/L
PBS	sodium	62.9 mg/kg
MR04-FB1-031605	zinc	1.2 ug/L

CCB = Continuing Calibration Blank, PBS = Preparation Blank (Soil),
MR04-FB1-031605= Field Blank

As the PBS value for chromium was between the MDL and the CRDL, and the results for chromium in the SDG samples were greater than the CRDL, no action was required.

As the PBS value for sodium was between the MDL and the CRDL, all positive results for sodium in the SDG samples between the MDL and the CRDL were flagged as undetected (U), with the results being raised to the CRDL.

As the PBS value for calcium was between the MDL and the CRDL, all positive results for this analyte less than the CRDL were flagged as undetected (U) with results raised to the CRQL.

As the field blank values for barium and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

As the CCB values for aluminum, cadmium, iron, magnesium, and manganese were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

The negative blank result listed below was the highest absolute value negative result for the blanks associated with this SDG:

Blank ID	Analyte	Max. Conc.
PBS	thallium	-0.586 mg/kg

PBS = Preparation Blank (soils)

The PBS value for thallium was between the negative MDL and the negative CRDL. As the results for thallium in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	1.2 ug/L
cadmium	3.3 ug/L
chromium	1.5 ug/L
cobalt	1.7 ug/L
copper	1.3 ug/L
lead	3.5 ug/L
manganese	12.1 ug/L
nickel	2.9 ug/L
zinc	26.1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

antimony	-4.0 ug/L
sodium	-390 ug/L
thallium	-7.3 ug/L
vanadium	-1.2 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Batch QC data were submitted for the Serial Dilution analysis. The Percent Differences (%Ds) were 10.2% for potassium and 13.3% for zinc. All positive and non-detect results for these analytes in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Batch Duplicate Sample Analyses were performed on sample MR04-SD01-06A. The Relative Percent Differences (RPDs) were 64% for chromium, 70% for iron, and 74% for vanadium, which exceeded the 35% QC limit for soil samples. All positive and non-detect results for these compounds in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VIII.) Matrix Spike (MS):

Batch Matrix Spike analyses were performed on sample MR04-SD01-06A. The Percent Recovery (%R) was 71% for lead, which was below the 75-125% QC limit. A post digestion spike was analyzed for lead with a Percent Recovery (%R) of 98%. All positive and non-detect results for lead in the SDG samples were flagged as estimated (J) and (UJ), respectively.

IX.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	MR04-SS05-0-4	MR04-SS05-0-4D	RPD
aluminum	9110 mg/kg	9630 mg/kg	55.6%
arsenic	4.2 mg/kg	2.8 mg/kg	40.0%
calcium	887 mg/kg	1890 mg/kg	72.2%
chromium	10.3 mg/kg	10.6 mg/kg	2.9%
iron	10300 mg/kg	8330 mg/kg	21.1%
lead	6.2 mg/kg	17.6 mg/kg	95.8%
manganese	6.5 mg/kg	9.2 mg/kg	34.4%
vanadium	20.2 mg/kg	17.1 mg/kg	16.6%
zinc	12.1 mg/kg	17.7 mg/kg	37.6%

The RPDs for calcium and lead exceeded the 60% QC advisory limit for soil samples. Data qualification based on field duplicate criteria was not required. No action was taken.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Batch Matrix Duplicate analysis was performed on sample MR04-SS01-0-4. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Batch Matrix Spike analysis was performed on sample MR04-SS01-0-4. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All samples were extracted on the fifteenth day and analyzed on the eighteenth day of a fourteen day holding time. All positive and non-detect results in the SDG samples were flagged as estimated (J) and (UJ).

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) was 54% for p-terphenyl in SDG sample MR04-SS05-0-4, which was below the 58-130% QC limits. As the result for TPH-DRO in the sample was previously flagged based on holding time criteria, no further action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SS01-0-4. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on MR04-SS01-0-4. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:
There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch MD analysis was performed on sample MR04-SS01-0-4. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch MS analysis was performed on sample MR04-SS01-0-4. All MS criteria were met. No action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch MD analysis was performed on sample MR04-SS01-0-4. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch MS analysis was performed on sample MR04-SS01-0-4. All MS criteria were met. No action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. The calculable Relative Percent Difference (RPD) was 14.9%, which was within the 60% QC advisory limit for soil samples. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were equipment blank analyzed for this fraction of the SDG. No action was taken.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. As the results for TOX in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

VI.) Matrix Spike (MS):

MS analysis was not performed for this fraction of the SDG. As the results for TOX were previously flagged based on MD criteria, no action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-SS05-0-4 / MR04-SS05-0-4D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 2004
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	603128 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-FB1-031605	603128-001	Water	X	X	X
MR04-FB1-031605DL	603128-001DL	Water		X	
MR04-EB2-031605	603128-002	Water	X	X	X
MR04-TB3-031605	603128-003	Soil	X		
HOLDING BLANK	603128-004	Soil	X		

Client Sample #	Lab Sample #	Matrix	Explosives	Metals	Cyanide
MR04-FB1-031605	603128-001	Soil	X	X	X
MR04-EB2-031605	603128-002	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	Perchlorate	TPH-DRO	TPH-GRO
MR04-FB1-031605	603128-001	Soil	X	X	X
MR04-EB2-031605	603128-002	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	O&G	TOC	TOX
MR04-FB1-031605	603128-001	Soil	X	X	X
MR04-EB2-031605	603128-002	Soil	X	X	

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK

Suffix Codes: DL = DILUTION

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 603128 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB2-031605, MR04-FB1-031605, MR04-TB3-031605, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 44.0% for trichlorobenzene in the standards analyzed on 3/8/06 on instrument HP#E, which exceeded the 30% QC limit. As the associated samples were the trip blank, equipment blank, and holding blank, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB3-031605, associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Three LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch QC data were submitted for MS / MSD analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All results for atrazine in the SDG samples, which consisted entirely of non-detects, were rejected (R) based on low Relative Response Factors in the continuing calibration.

All other laboratory data were acceptable with qualifications.

MAJOR ISSUES

I.) Continuing Calibration:

The Relative Response Factor (RRF) was 0.040 for atrazine in the standards analyzed on 3/23/06 at 19:34 on instrument #H, which was below the 0.050 QC limit. As the results for atrazine in all SDG samples consisted entirely of non-detects, these results were rejected (R).

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 35.3% for benzylaldehyde in the standard analyzed on 1/20/06 on instrument #H, which exceeded the 30% QC limit. As the results for this compound in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 3/23/06 at 19:34 on instrument #H exceeded

the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	69.9%
caprolactam	50.9%
2-nitroaniline	50.4%
4-chlorophenyl-phenylether	29.6%
atrazine	79.4%
pentachlorophenol	33.0%

As the associated samples were the field blank and equipment blank, no action was required.

The Percent Differences (%D's) in the standards analyzed on 3/28/06 at 07:09 on instrument #H exceeded the 25% QC limit for the following compounds:

Compound	%D
hexachlorobutadiene	71.2%
caprolactam	51.0%
2-nitroaniline	46.4%
4-chlorophenyl-phenylether	29.5%
atrazine	61.6%
pentachlorophenol	28.5%

As the associated sample was the dilution analysis of the field blank, no action was required.

Please also see the Major Issues section for this fraction of the SDG.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Bis(2-ethylhexyl)phthalate was detected at 26 ug/L (0.86 ug/kg) in equipment blank, MR04-EB2-031605. As the SDG samples consisted entirely of field QC samples, no action was required.

Field Blank:

Bis(2-ethylhexyl)phthalate was detected at 180 ug/L (6.0 ug/kg) in field blank, MR04-FB1-031605. As the SDG samples consisted entirely of field QC samples, no action was required.

Tentatively Identified Compounds (TICs):
There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. The Percent Recovery (%Rs) was 109% for 4-chloro-3-methylphenol, which exceeded the 19-108%QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch QC data were submitted for MS / MSD analyses. The Percent Recoveries (%Rs) of three compounds exceeded the QC limits in the MS, and the Percent Recoveries (%Rs) of four compounds exceeded the QC limits in the MSD. The Relative Percent Differences (RPDs) of two compounds exceeded the 20% QC limit. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for bis(2-ethylhexyl)phthalate in the initial analysis of sample MR04-FB1-031605 exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The result for this compound on the initial analysis Form I was rejected (R). The result for bis(2-ethylhexyl)phthalate on the dilution analysis Form I was of preferable data quality. The Form I for the dilution analysis was rejected (R) based on redundancy, except for bis(2-ethylhexyl)phthalate.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 50.0% for gamma-BHC and 35.0% for tetrachloro-m-xylene in the standards analyzed on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 25% QC limit. As no results were reported for gamma-BHC from this column and TMX was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

Heptachlor was detected at 0.020 ug/L (0.007 mg/kg) in the equipment blank, MR04-EB2-031605. As the SDG samples consisted entirely of field QC samples, no action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.010 ug/L (0.003 mg/kg) and 0.020 ug/L (0.007 mg/kg), respectively, in the field blank, MR04-FB1-031605, associated with this SDG. As the SDG samples consisted entirely of field QC samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch Qc data were submitted for MS / MSD analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

GPC Cleanup was not required for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The column Percent Differences (%Ds) exceeded the 70% QC limit for the following samples:

Sample	Compound	%D
MR04-FB1-031605	heptachlor	100%
	heptachlor epoxide	200%

As the SDG samples consisted entirely of field QC samples, no action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.
MR04-FB1-031605	barium	0.48 ug/L
MR04-FB1-031605	zinc	1.2 ug/L

MR04-FB1-031605= Field Blank

As the SDG samples consisted entirely of field QC samples, no action was required.

Negative Blank Results:

There were no negative blank results for this fraction of the SDG. No action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

antimony	3.6 ug/L
barium	1.4 ug/L
cadmium	0.57 ug/L
chromium	1.1 ug/L
cobalt	0.96 ug/L
copper	1.7 ug/L
lead	2.0 ug/L
manganese	10.5 ug/L
nickel	2.8 ug/L
selenium	4.3 ug/L
zinc	25.2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

sodium	-520 ug/L
vanadium	-3.9 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Batch QC data were submitted for the Serial Dilution analysis for this SDG. All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Batch QC data were submitted for the Duplicate Sample Analysis for this fraction of the SDG. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Batch QC data were submitted for the Matrix Spike analysis for this fraction of the SDG. All MS criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Batch QC data were submitted for the Duplicate Sample Analysis for this fraction of the SDG. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Batch QC data were submitted for the Matrix Spike analysis for this fraction of the SDG. All MS criteria

were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG.
No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch QC data were submitted for MS / MSD analysis for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:
There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch QC data were submitted for MS / MSD analysis for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES
No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. As the SDG consisted entirely of field QC samples, no action was required.

VI.) Matrix Spike (MS):

MS analysis was not performed for this fraction of the SDG. As the SDG consisted entirely of field QC samples, no action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB2-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch QC data were submitted for MD analysis for this fraction of the SDG. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch QC data were submitted for MS analysis for this fraction of the SDG. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB3-031605, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB1-031605, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. As the SDG consisted entirely of field QC samples, no action was required.

VI.) Matrix Spike (MS):

MS analysis was not performed for this fraction of the SDG. As the SDG consisted entirely of field QC samples, no action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2004
SAMPLE MATRICES:	Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Dissolved Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	603228 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-EB01-032806	603228-001	Water	X		
MR04-EB01-06A	603228-001	Water		X	
MR04-TB01-032806	603228-003	Water	X		
MR04-MW01-06A	603228-004	Water	X	X	X
MR04-MW03-06A	603228-006	Water	X	X	X
MR04-MW07-06A	603228-008	Water	X	X	X
MR04-TB02-032906	603228-010	Water	X		
MR04-EB02-06A	603228-011	Water	X		X
MR04-EB02-032906	603228-011	Water		X	
MR04-MW14-06A	603228-013	Water	X	X	X
MR04-MW11-06A	603228-015	Water	X	X	X
MR04-MW10-06A	603228-017	Water	X	X	X
MR04-MW05-06A	603228-019	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-MW05-06AMS	603228-019MS	Water	X		
MR04-MW05-06AMSD	603228-019MSD	Water	X		
HOLDING BLANK	603228-021	Water	X		

MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-EB01-032806	603228-001	Water			
MR04-EB01-06A	603228-001	Water		X	
MR04-MW01-06A	603228-004	Water	X	X	
MR04-MW01-06AFIL	603228-005	Water			X
MR04-MW03-06A	603228-006	Water	X	X	
MR04-MW03-06AFIL	603228-007	Water			X
MR04-MW07-06A	603228-008	Water	X	X	
MR04-MW07-06AFIL	603228-009	WateR			X
MR04-EB02-06A	603228-011	Water		X	
MR04-EB02-032906	603228-012	Water	X		
MR04-MW14-06A	603228-013	Water	X	X	
MR04-MW14-06AMS	603228-013MS	Water		X	
MR04-MW14-06AMSD	603228-013MSD	Water		X	
MR04-MW14-06AFIL	603228-014	Water			X
MR04-MW11-06A	603228-015	Water	X	X	
MR04-MW11-06AFIL	603228-016	Water			X
MR04-MW10-06A	603228-017	Water	X	X	
MR04-MW10-06AFIL	603228-018	Water			X
MR04-MW05-06A	603228-019	Water	X	X	
MR04-MW05-06AMS	603228-019MS	Water			
MR04-MW05-06AMSD	603228-019MSD	Water			
MR04-MW05-06AFIL	603228-020	Water			X
MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-EB01-032806	603228-001	Water		X	
MR04-EB01-06A	603228-001	Water	X		
MR04-EB01-06AMS	603228-001MS	Water	X		
MR04-EB01-06AMSD	603228-001MSD	Water	X		
MR04-MW01-06A	603228-004	Water	X	X	X
MR04-MW03-06A	603228-006	Water	X	X	X
MR04-MW07-06A	603228-008	Water	X	X	X
MR04-EB02-06A	603228-011	Water	X		
MR04-EB02-032906	603228-011	Water		X	X
MR04-MW14-06A	603228-013	Water	X	X	X
MR04-MW11-06A	603228-015	Water	X	X	X
MR04-MW10-06A	603228-017	Water	X	X	X
MR04-MW05-06A	603228-019	Water	X	X	X
MR04-MW05-06AMS	603228-019MS	Water			
MR04-MW05-06AMSD	603228-019MSD	Water			

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-MW08-06AMS	603238-004MS	Water			X
MR04-MW08-06AMSD	603238-004MSD	Water			X

Client Sample #	Lab Sample #	Matrix	TPH-GRO	O&G	TOC
MR04-EB01-032806	603228-001	Water	X	X	X
MR04-EB01-032806RE	603228-001RE	Water	X		
MR04-TB01-032806	603228-003	Water	X		
MR04-TB01-032806RE	603228-003RE	Water	X		
MR04-MW01-06A	603228-004	Water	X	X	X
MR04-MW01-06AMS	603228-004MS	Water			X
MR04-MW01-06AMSD	603228-004MSD	Water			X
MR04-MW01-06ARE	603228-004RE	Water	X		
MR04-MW03-06A	603228-006	Water	X	X	X
MR04-MW03-06ARE	603228-006RE	Water	X		
MR04-MW07-06A	603228-008	Water	X	X	X
MR04-MW07-06ARE	603228-008RE	Water	X		
MR04-TB02-032906	603228-010	Water	X		
MR04-TB02-032906RE	603228-010RE	Water	X		
MR04-EB02-06A	603228-011	Water			
MR04-EB02-032906	603228-011	Water	X	X	X
MR04-EB02-032906RE	603228-011RE	WateR	X		
MR04-MW14-06A	603228-013	Water	X	X	X
MR04-MW14-06ARE	603228-013RE	Water	X		
MR04-MW11-06A	603228-015	Water	X	X	X
MR04-MW11-06ARE	603228-015RE	Water	X		
MR04-MW10-06A	603228-017	Water	X	X	X
MR04-MW10-06ARE	603228-017RE	Water	X		
MR04-MW05-06A	603228-019	Water	X	X	X
MR04-MW05-06ARE	603228-019RE	Water	X		
MR04-MW05-06AMS	603228-019MS	Water			
MR04-MW05-06AMSD	603228-019MSD	Water			
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-MW08-06AMS	603238-004MS	Water	X		
MR04-MW08-06AMSD	603238-004MSD	Water	X		

Client Sample #	Lab Sample #	Matrix	TOX
MR04-EB01-06A	603228-001	Water	X
MR04-EB01-06AMD	603228-001MD	Water	X
MR04-MW01-06A	603228-004	Water	X
MR04-MW03-06A	603228-006	Water	X
MR04-MW07-06A	603228-008	Water	X
MR04-EB02-06A	603228-011	Water	X
MR04-EB02-06AMS	603228-011MS	Water	X
MR04-MW14-06A	603228-013	Water	X
MR04-MW11-06A	603228-015	Water	X
MR04-MW10-06A	603228-017	Water	X

Client Sample #	Lab Sample #	Matrix	TOX
MR04-MW05-06A	603228-019	Water	X

MR04-FB01-040106	604010-003	Water	X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK

Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 603228 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB01-032806, MR04-EB01-06A, MR04-EB02-062906, MR04-EB02-06A, MR04-FB01-040106, MR04-TB01-032806, MR04-TB02-032906, MR04-MW01-06A, MR04-MW03-06A, MR04-MW05-06A, MR04-MW07-06A, MR04-MW10-06A, MR04-MW11-06A, MR04-MW14-06A, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) in the standards analyzed on 4/3/06 at 09:45 on instrument HP#A exceeded the 25% QC limit for the following compounds:

Compound	%D
acetone	113.3%
2-butanone	74.4%
2-hexanone	51.5%
methyl acetate	84.5%

As the results for these compounds in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blanks, MR04-EB01-032806 and MR04-EB02-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blanks:

Chloroform was detected at 1.6 ug/L in trip blank MR04-TB01-032806. As the results for chloroform in the associated SDG samples consisted entirely of non-detects, no action was required.

Chloroform was detected at 1.5 ug/L in trip blank MR04-TB02-032906. As the results for chloroform in the associated SDG samples consisted entirely of non-detects, no action was required.

Holding Blank:

There were no detections in the holding blank associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

Heptane was detected at 2.96 ug/L in equipment blank MR04-EB01-032806. As this compound was not detected in any SDG sample, no action was required.

Ethyl acetate was detected at 5.11 ug/L in field blank MR04-FB01-040106. As this compound was not detected in any SDG sample, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample MR04-MW05-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 46.5% for benzylaldehyde, 32.5% for 2,4-dinitrophenol, and 45.1% for atrazine in the standard analyzed on 3/31/06 on instrument HP#H, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) were 32.0% for 4-nitroaniline and 34.9% for atrazine in the standards analyzed on 4/5/06 at 08:14 on instrument HP#H, which exceeded the 25% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blank, MR04-EB01-06A, associated with this fraction of the SDG. No action was required.

Bis(2-ethylhexyl)phthalate was detected at 23 ug/L in equipment blank MR04-EB02-032906. All positive results for this compound in the associated SDG samples less than 10X the blank amount (230 ug/L) were flagged as undetected (U) with results less than the CRQL being raised to the CRQL. The associated SDG samples were MR04-MW14-06A, MR04-MW11-06A, MR04-MW10-06A, and MR04-MW05-06A.

Field Blank:

Diethyl phthalate was detected at 1.5 ug/L in field blank, MR04-FB01-040106. As the results for this compound in the SDG samples consisted entirely of non-detects, no action was required.

Tentatively Identified Compounds (TICs):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

The Percent Breakdown (%B) of endrin was 20.3% on 3/30/06 at 14:10 on the secondary column of instrument GC-W, which exceeded the 20% QC limit. Since there were no positive results for endrin, endrin aldehyde, or endrin ketone in the associated SDG sample, no action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in equipment blank MR04-EB02-032906 associated with this fraction of the SDG. No action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.040 ug/L and 0.19 ug/L, respectively, in the field blank, MR04-FB01-040106, associated with this SDG. As all results for heptachlor epoxide in the SDG samples were less than 5X the blank amount (0.95 ug/L), the results were flagged as undetected (U) and raised to the CRQL. As the results for heptachlor in the SDG samples consisted entirely of non-detects, no further action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met.
No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

GPC Cleanup was not required for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

All PIS criteria were met. No action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB02-032906, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) was 235% for 4-nitroaniline in SDG sample MR04-MW14-06A, which exceeded the 37-149% QC limits. As the results for this sample consisted entirely of non-detects, no action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. The Percent Recoveries (%Rs) of three compounds were below their QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A for this fraction of the SDG. The Relative Percent Difference (RPD) was 61% for tetryl, which exceeded the 20% QC limit. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL AND DISSOLVED METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples analyzed on 4/6/06 and were used for data qualification:

Blank ID	Analyte	Max. Conc.
MR04-FB01-040106	barium	0.43 ug/L
CCB4	beryllium	0.26 ug/L
MR04-FB01-040106	calcium	122 ug/L
CCB2	cobalt	1.44 ug/L

MR04-FB01-040106	copper	1.1 ug/L
CCB2	iron	45.98 ug/L
CCB4	magnesium	85.99 ug/L
CCB2	manganese	0.52 ug/L
MR04-EB01-06A	potassium	16.1 ug/L
MR04-EB01-06A	silver	1.0 ug/L
CCB2	thallium	4.0 ug/L
MR04-FB01-040106	zinc	3.4 ug/L

MR04-EB01-06A = Equipment Blank, CCB = Continuing Calibration Blank,
MR04-FB01-040106= Field Blank

As the field blank and equipment blank values for barium, calcium, copper, potassium, silver, and zinc were between the MDL and the CRDL, all positive results for these analytes in the associated SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL. The associated samples were MR04-MW01-06A, MR04-MW03-06A, MR04-MW07-06A, MR04-MW01-06AFIL, MR04-MW03-06AFIL, and MR04-MW07-06AFIL for barium, calcium, copper, potassium, silver and zinc, and MR04-MW14-06A for barium, calcium, copper, and zinc only.

As the CCB values for beryllium, cobalt, iron, magnesium, manganese, and thallium were between the MDL and the CRDL, all positive results for these analytes in the associated SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL. The associated samples were MR04-MW01-06A, MR04-MW03-06A, MR04-MW07-06A, MR04-MW01-06AFIL, MR04-MW03-06AFIL, and MR04-MW07-06AFIL.

The following blank results represent the highest detections associated with the samples analyzed on 4/12/06 and were used for data qualification:

Blank ID	Analyte	Max. Conc.
CCB4	aluminum	69.44 ug/L
MR04-EB02-06A	barium	0.72 ug/L
CCB4	cadmium	0.52 ug/L
MR04-EB02-06A	calcium	122 ug/L
MR04-FB01-040106	copper	1.1 ug/L
CCB4	iron	45.69 ug/L
CCB4	magnesium	103.13 ug/L
CCB3	manganese	0.36 ug/L
MR04-FB01-040106	zinc	3.4 ug/L

MR04-EB02-06A = Equipment Blank, CCB = Continuing Calibration Blank,
MR04-FB01-040106= Field Blank

As the field blank and equipment blank values for barium, calcium, copper, and zinc were between the MDL and the CRDL, all positive results for these analytes in the associated SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL. The associated samples were MR04-MW11-06A, MR04-MW10-06A, MR04-MW05-06A, MR04-MW14-06A, MR04-MW11-06AFIL, MR04-MW10-06AFIL, MR04-MW05-06AFIL, MR04-MW14-06AFIL.

As the CCB values for aluminum, cadmium, iron, magnesium, and manganese were between the MDL and the CRDL, all positive results for these analytes in the associated SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL. The associated samples were MR04-MW11-06A, MR04-MW10-06A, MR04-MW05-06A, MR04-MW14-06A, MR04-MW11-06AFIL, MR04-MW10-06AFIL, MR04-MW05-06AFIL, MR04-MW14-06AFIL.

Negative Blank Results:

There were no negative results for the blanks associated with the samples analyzed on 4/6/06 nor 4/12/06. No further action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A analyzed on 4/6/06 with results greater than the IDL:

antimony	3.6 ug/L
barium	1.2 ug/L
cadmium	0.57 ug/L
chromium	1.1 ug/L
cobalt	0.96 ug/L
copper	1.7 ug/L
manganese	10.4 ug/L
nickel	2.2 ug/L
selenium	4.3 ug/L
zinc	25.2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A analyzed on 4/6/06 with the absolute value greater than the IDL:

sodium	-510 ug/L
vanadium	-2.9 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes were detected in the ICS Solution A analyzed on 4/1206 with results greater than the IDL:

barium	1.2 ug/L
cadmium	3.2 ug/L
chromium	1.2 ug/L

cobalt	1.8 ug/L
copper	1.2 ug/L
lead	3.8 ug/L
manganese	12.2 ug/L
nickel	2.9 ug/L
zinc	26.1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A analyzed on 4/6/06 with the absolute value greater than the IDL:

antimony	-4 ug/L
potassium	-16 ug/L
sodium	-490 ug/L
thallium	-6.1 ug/L
vanadium	-1.3 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG sample MR04-MW14-06A. All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Duplicate Sample Analyses were performed on SDG sample MR04-MW14-06A for ICP analysis and batch QC data were submitted for mercury analysis. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG sample MR04-MW14-06A for ICP analysis and batch QC data were submitted for mercury analysis. All MS / MD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Total / Dissolved Results:

The following analytes had greater concentrations in the dissolved sample than in the total sample:

Sample ID	Analyte	%D
MR04-MW01-06A	aluminum	1.8%
	calcium	2.0%
	magnesium	4.2%
	selenium	5.2%
MR04-MW03-06A	iron	3.1%
	manganese	0.9%
MR04-MW07-06A	iron	2.8%
	manganese	7.4%
	zinc	16.9%
MR04-MW11-06A	aluminum	1.4%
MR04-MW05-06A	iron	7.2%
	manganese	5.1%

The Percent Difference (%D) for zinc in SDG sample MR04-MW07-06A exceeded the 15% QC limit. The total and dissolved results for zinc in this sample were flagged as estimated (J).

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-06A and MR04-EB02-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Matrix Duplicate analysis was performed on SDG sample MR04-EB01-06A for this fraction of the SDG. Although field QC samples can not be used for MD analysis, based on professional judgment and as the results for cyanide in the SDG samples consisted entirely of non-detects, no action was taken.

VII.) Matrix Spike (MS):

Matrix Spike analysis was performed on SDG sample MR04-EB01-06A for this fraction of the SDG. Although field QC samples can not be used for MS analysis, based on professional judgment and as the results for cyanide in the SDG samples consisted entirely of non-detects, no action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-032806 and MR04-EB02-032906, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diesel Range Organics were detected at 0.15 mg/L in equipment blank MR04-EB02-032906. All positive results for TPH-DRO in the SDG sample less than 5X the blank amount (0.75 mg/L) were flagged as undetected (U).

Field Blank:

Diesel Range Organics were detected at 0.063 mg/L in field blank MR04-FB01-040106. As the results for TPH-DRO were previously flagged based on equipment blank criteria, no further action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

Based on continuing calibration and LCS criteria, the reanalysis of the SDG samples were considered by the validator to be of preferable data quality to the initial analysis. The initial analysis Form Is for TPH-GRO were rejected (R) due to redundancy.

All other laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

SDG samples MR04-MW01-06ARE, MR04-MW03-06ARE, MR04-MW07-06ARE, MR04-EB01-032806RE, and MR04-TB01-040106RE, were analyzed on the fifteenth day of the fourteen day holding time. All positive and non-detect results for samples MR04-MW01-06ARE, MR04-MW03-06ARE, and MR04-MW07-06ARE were flagged as estimated (J) and (UJ). As samples MR04-EB01-032806RE, and MR04-TB01-040106RE were QC samples, no further action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 57.7%, 49.5% and 68.0% for TPH-GRO in the continuing calibration run on 4/11/06. As the associated samples were reanalyzed with all calibration criteria met, no action was required.

The Percent Differences (%Ds) were 32.6%, 35.7%, 35.5%, and 36.6% for 4-bromofluorobenzene in the continuing calibration run on 4/11/06 and 4/12/06. As this compound was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-032806 and MR04-EB02-032906, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blanks:
There were no detections in the field blanks, MR04-TB01-032806 and MR04-TB02-032906, associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. The Percent Recovery (%R) of gasoline range organics was 46% in LCS BKS81204, which was below the 72-116% QC limit. As all samples were reanalyzed with calibration and LCS criteria met, no action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-0328 and MR04-EB02-032906, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. All positive and non-detect results for Oil and Grease in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was not performed for this fraction of the SDG. As the results for Oil and Grease were previously flagged based on MD criteria, no further action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-032806 and MR04-EB02-032906, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-MW01-06A for this fraction of the SDG. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW01-06A for this fraction of the SDG. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB01-032806 and MR04-EB02-032906, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-EB01-032806 for this fraction of the SDG. Although field QC samples can not be used for MD analysis, based on professional judgment and as the results for TOX in the SDG samples consisted entirely of non-detects, no action was taken.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-EB01-032806 for this fraction of the SDG. Although field QC samples can not be used for MS analysis, based on professional judgment and as the results for TOX in the SDG samples consisted entirely of non-detects, no action was taken.

VII.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc. (ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 2004
SAMPLE MATRICES:	Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Dissolved Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	603238 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-EB03-06A	603238-001	Water	X	X	X
MR04-TB03-06A	603238-002	Water	X		
MR04-MW08-06A	603238-004	Water	X	X	X
MR04-MW08-06AMS	603238-004MS	Water	X	X	X
MR04-MW08-06AMSD	603238-004MSD	Water	X	X	X
MR04-MW09-06A	603238-006	Water	X	X	X
MR04-MW04-06A	603238-008	Water	X	X	X
MR04-MW08-06A-D	603238-010	Water	X	X	X
HOLDING BLANK	603238-012	Water	X		
MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-EB03-033006	603238-001	Water		X	
MR04-EB03-06A	603238-001	Water	X		
MR04-MW08-06A	603238-004	Water	X	X	
MR04-MW08-06AMD	603238-004MD	Water		X	
MR04-MW08-06AMS	603238-004MS	Water	X		
MR04-MW08-06AMSD	603238-004MSD	Water	X	X	
MR04-MW08-06AFIL	603238-005	Water			X

Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-MW09-06A	603238-006	Water	X	X	

MR04-MW09-06AFIL	603238-007	Water	X		
MR04-MW04-06A	603238-008	Water	X	X	
MR04-MW04-06AFIL	603238-009	Water			X
MR04-MW08-06A-D	603238-010	Water	X	X	
MR04-MW08-06AFIL	603238-011	Water			X
MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-EB03-033006	603238-001	Water	X	X	
MR04-EB03-06A	603238-001	Water			X
MR04-MW08-06A	603238-004	Water	X	X	X
MR04-MW08-06AMD	603238-004MD	Water	X		
MR04-MW08-06AMS	603238-004MS	Water	X	X	X
MR04-MW08-06AMSD	603238-004MSD	Water		X	X
MR04-MW09-06A	603238-006	Water	X	X	X
MR04-MW04-06A	603238-008	Water	X	X	X
MR04-MW08-06A-D	603238-010	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	TPH-GRO	O&G	TOC
MR04-EB03-033006	603238-001	Water	X	X	X
MR04-TB03-06A	603238-002	Water	X		
MR04-MW08-06A	603238-004	Water	X	X	X
MR04-MW08-06AMD	603238-004MD	Water		X	
MR04-MW08-06AMS	603238-004MS	Water	X		X
MR04-MW08-06AMSD	603238-004MSD	Water	X		
MR04-MW09-06A	603238-006	Water	X	X	X
MR04-MW04-06A	603238-008	Water	X	X	X
MR04-MW08-06A-D	603238-010	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	TOX
MR04-EB03-06A	603238-002	Water	X
MR04-MW08-06A	603238-004	Water	X
MR04-MW08-06AMS	603238-004MS	Water	X
MR04-MW09-06A	603238-006	Water	X
MR04-MW04-06A	603238-008	Water	X
MR04-MW08-06A-D	603238-010	Water	X
MR04-FB01-040106	604010-003	Water	X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK
Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS,
D= FIELD DUPLICATE

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 603238 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB03-033006, MR04-EB03-06A, MR04-TB03-06A, MR04-MW08-06A, MR04-MW08-06A-D, MR04-MW09-06A, MR04-MW04-06A, MR04-FB01-040106, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 95.1% for acetone, 47.6% for 2-butanone, 43.2% for 2-hexanone, and 68.8% for methyl acetate in the standards analyzed on 4/4/06 at 08:15 on instrument HP#A, which exceeded the 25% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:
Chloroform was detected at 1.4 ug/L in equipment blank MR04-EB03-06A for this fraction of the SDG. All positive results for chloroform in the SDG samples less than 5X the blank amount (7.0 ug/L) were flagged as undetected (U),with results less than the CRQL being raised to the CRQL.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

Chloroform was detected at 1.4 ug/L in trip blank, MR04-TB03-06A, associated with this fraction of the SDG. As the results for chloroform were previously flagged based on equipment blank criteria, no further action was required.

Holding Blank:

There were no detections in the HOLDING BLANK associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

Butane was detected at 5.44 ug/L in trip blank MR04-TB03-06A associated with this fraction of the SDG. As butane was not detected in the SDG samples, no action was required.

Ethyl acetate was detected at 5.11 ug/L in field blank MR04-FB01-040106 associated with this fraction of the SDG. As ethyl acetate was not detected in the SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. All MS /MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD) were 46.5% for benzylaldehyde, 32.5 for 2,4-dinitrophenol, and 45.1% for atrazine in the standards analyzed on 3/31/06 on instrument HP#H, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 4/6/06 at 06:27 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
caprolactam	29.7%
2,4-dinitrophenol	40.4%
2-nitroaniline	48.7%
atrazine	34.4%
3,3-dichlorobenzidine	29.1%

As the results for these compounds in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

Diethyl phthalate was detected at 1.5 ug/L in field blank, MR04-FB01-040106 associated with this SDG. As the results for diethyl phthalate in the SDG samples consisted entirely of non-detects, no action was required.

Tentatively Identified Compounds (TICs):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. The Percent Recoveries (%Rs) of two compounds exceeded the QC limits in the MS and MSD. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this

SDG. The only calculable Relative Percent Difference (RPD) was 114.6% for bis(2-ethylhexyl)phthalate, which exceeded the 30% QC advisory limit for aqueous samples. Data qualification based on field duplicate criteria was not required. No action was taken.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blank, MR04-EB03-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.040 ug/L and 0.19 ug/L, respectively, in the field blank, MR04-FB01-040106, associated with this SDG. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG soil sample MR04-MW08-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

GPC Cleanup was not required for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

All PIS criteria were met. No action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. The Percent Recoveries (%Rs) of three compounds were below the QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. The Relative Percent Difference (RPD) was 61% for tetryl, which exceeded the 20% QC limit. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL AND DISSOLVED METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank ID	Analyte	Max. Conc.
CCB6	aluminum	91.37 ug/L
MR04-FB01-040106	barium	0.43 ug/L
CCB4	calcium	71.16 ug/L
MR04-FB01-040106	copper	1.1 ug/L
CCB4	iron	31.66 ug/L
CCB4	magnesium	94.49 ug/L
CCB7	potassium	24.09 ug/L
CCB7	sodium	580.44 ug/L
MR04-FB01-040106	zinc	3.4 ug/L

CCB = Continuing Calibration Blank, MR04-FB01-040106 = Field Blank

As the field blank values for barium, copper, and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

As the CCB values for aluminum, calcium, iron, magnesium, potassium, and sodium were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

There were no negative results in the blanks associated with this SDG. No action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

antimony	3.5 ug/L
barium	1.4 ug/L
cadmium	4.5 ug/L
chromium	1.5 ug/L
cobalt	1.8 ug/L
copper	1.6 ug/L
lead	5.9 ug/L
manganese	11.0 ug/L
nickel	2.7 ug/L
zinc	28.3 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

beryllium	-0.18 ug/L
selenium	-4.0 ug/L
sodium	-240 ug/L
thallium	-12 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG sample MR04-MW08-06A for total and dissolved analyses. All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):
Duplicate Sample Analyses were performed on SDG sample MR04-MW08-06A for total and dissolved analyses. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG sample MR04-MW08-06A for total and dissolved analyses. All MS criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. The only calculable Relative Percent Difference (RPD) was 1.3% for sodium, which was within the 30% QC advisory limit for aqueous samples. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No action was taken.

XI.) Total / Dissolved Metals:

The dissolved sample result for sodium in SDG sample MR04-MW04-06A was greater than the total result. As the Percent Difference (%D) was 0.7% for sodium, which was within the 15% QC limit, no action was required.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Matrix Duplicate analysis was performed on SDG sample MR04-MW08-06A. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Matrix Spike analysis was performed on SDG sample MR04-MW08-06A. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diesel Range Organics were detected at 0.22 mg/L in equipment blank MR04-EB03-06A associated with this fraction of the SDG. All positive results for TPH-DRO less than 5X the blank amount (1.1 mg/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Field Blank:

Diesel Range Organics were detected at 0.063 mg/L in field blank MR04-FB01-040106 associated with this fraction of the SDG. As the results for TPH-DRO were previously flagged based on equipment blank criteria, no further action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. After flagging based on blank criteria, there were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 20.5% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/12/06, which exceeded the 20% QC limit. As this compound was a surrogate, no action was required.

Continuing Calibration:

The Percent Difference (%D) was 35.5% for 4-bromofluorobenzene (BFB) in the standard analyzed on 4/13/06, which exceeded the 25% QC limit. As this compound was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was

required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-MW08-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-MW08-06A. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW08-06A. All MS criteria were met. No action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis were not performed for this fraction of the SDG. All positive and non-detect results were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW08-06A. All MS criteria were met. No action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB03-033006, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-MW08-06A. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW08-06A. All MS criteria were met. No action was required.

VII.) Field Duplicates:

One set of field duplicate samples (MR04-MW08-06A / MR04-MW08-06A-D) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2004
SAMPLE MATRICES:	Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Dissolved Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	604009 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-TB04-06A	604009-001	Water	X		
MR04-MW15-06A	604009-002	Water	X	X	X
MR04-MW13-06A	604009-004	Water	X	X	X
MR04-MW12-06A	604009-006	Water	X	X	X
MR04-MW06-06A	604009-008	Water	X	X	X
HOLDING BLANK	604009-010	Water	X		
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-MW08-06AMS	603238-004MS	Water	X	X	
MR04-MW08-06AMSD	603238-004MSD	Water	X	X	

Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-MW15-06A	604009-002	Water	X	X	
MR04-MW15-06AFIL	604009-003	Water			X
MR04-MW13-06A	604009-004	Water	X	X	
MR04-MW13-06AFIL	604009-005	Water			X
MR04-MW12-06A	604009-006	Water	X	X	
MR04-MW12-06ADL	604009-006DL	Water		X	

MR04-MW12-06AFIL	604009-007	Water			X
Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-MW12-06AFILDL	604009-007DL	Water			X
MR04-MW06-06A	604009-008	Water	X	X	
MR04-MW06-06ADL	604009-008DL	Water		X	
MR04-MW06-06AFIL	604009-009	Water			X
MR04-MW06-06AFILDL	604009-009DL	Water			X
MR04-EB04-040106	604010-001	Water	X	X	
MR04-EB04-040106FIL	604010-002	Water			X
MR04-FB01-040106	604010-003	Water	X	X	
MR04-FB01-040106FIL	604010-004	Water			X

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-MW15-06A	604009-002	Water	X	X	X
MR04-MW13-06A	604009-004	Water	X	X	X
MR04-MW12-06A	604009-006	Water	X	X	X
MR04-MW06-06A	604009-008	Water	X	X	X
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-MW08-06AMD	603238-004MD	Water	X		
MR04-MW08-06AMS	603238-004MS	Water	X	X	
MR04-MW08-06AMSD	603238-004MSD	Water		X	

Client Sample #	Lab Sample #	Matrix	TPH-GRO	O&G	TOC
MR04-TB04-033106	604009-001	Water	X		
MR04-MW15-06A	604009-002	Water	X	X	X
MR04-MW13-06A	604009-004	Water	X	X	X
MR04-MW12-06A	604009-006	Water	X	X	X
MR04-MW12-06AMS	604009-006MS	Water			X
MR04-MW06-06A	604009-008	Water	X	X	X
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-SW10-06AMS	604011-013	Water	X		
MR04-SW10-06AMSD	604011-013	Water	X		
MR04-MW08-06AMD	603238-004MD	Water		X	
MR04-MW08-06AMS	603238-004MS	Water		X	

Client Sample #	Lab Sample #	Matrix	TOX
MR04-MW15-06A	604009-002	Water	X
MR04-MW13-06A	604009-004	Water	X
MR04-MW12-06A	604009-006	Water	X
MR04-MW06-06A	604009-008	Water	X
MR04-EB04-040106	604010-001	Water	X
MR04-EB04-040106MS	604010-001MS	Water	X
MR04-FB01-040106	604010-003	Water	X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK

Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, D= FIELD DUPLICATE

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 604009 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB04-040106, MR04-FB01-040106, MR04-TB04-033106, MR04-MW06-06A, MR04-MW12-06A, MR04-MW13-06A, MR04-MW15-06A, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 95.1% for acetone, 47.6% for 2-butanone, 43.2% for 2-hexanone, and 68.8% for methyl acetate in the standards analyzed on 4/4/06 at 08:15 on instrument HP#A, which exceeded the 25% QC limit. As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-MW15-06A, MR04-MW13-06A, and MR04-MW12-06A. The trip blank, MR04-TB04-033106 was also associated, however, as it was a QC sample, no further action was required.

The Percent Differences (%Ds) were 37.8% for acetone and 36.5% for methyl acetate in the standards analyzed on 4/6/06 at 09:21 on instrument HP#A, which exceeded the 25% QC limit. As the results for

these compounds in the associated SDG sample, MR04-MW06-06A, consisted entirely of non-detects, the results were flagged as estimated (UJ). The HOLDING BLANK was also associated, however, as it was a QC sample, no further action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, for this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

Chloroform was detected at 1.5 ug/L in the trip blank, MR04-TB04-033106, associated with this fraction of the SDG. All positive results for chloroform in the SDG samples less than 5X the blank amount (7.5 ug/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Holding Blank:

There were no detections in the HOLDING BLANK associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blank associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A. All MS /MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD) were 46.5% for benzylaldehyde, 32.5 for 2,4-dinitrophenol, and 45.1% for atrazine in the standards analyzed on 3/31/06 on instrument HP#H, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 4/11/06 at 08:03 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	46.6%
2,2-oxybis(1-chloropropane)	28.1%
n-nitroso-di-n-propylamine	31.6%
caprolactam	25.9%
2-nitroaniline	41.1%
atrazine	35.2%
3,3-dichlorobenzidine	30.2%

As the results for these compounds in the SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diethyl phthalate, bis(2-ethylhexyl)phthalate, and di-n-butylphthalate were detected at 2.0 ug/L, 2.9 ug/L, and 4.7 ug/L, respectively, in the equipment blank, MR04-EB04-040106, associated with this fraction of the SDG. All positive results for these compounds in the SDG samples less than 10X the blank amounts were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Field Blank:

Diethyl phthalate was detected at 1.5 ug/L in field blank, MR04-FB01-040106, associated with this SDG. As the results for this compound were previously flagged based on equipment blank criteria, no further action was required.

Tentatively Identified Compounds (TIC):

Hexadonic acid, benzenesulfonomide, and octadecene were detected at 3.15 ug/L, 4.33 ug/L, and 20 ug/L in equipment blank MR04-EB01-040106. As these compounds were not detected in the SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A. The Percent Recoveries (%Rs) of two compounds exceeded the QC limits in the MS and MSD. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

Heptachlor and heptachlor epoxide were detected at 0.030 ug/L and 0.18 ug/L, respectively, in the equipment blank, MR04-EB04-040106, associated with this SDG. As the results for these compounds were flagged based on field blank criteria, no further action was required.

Field Blank:
Heptachlor and heptachlor epoxide were detected at 0.040 ug/L and 0.19 ug/L, respectively, in the field blank, MR04-FB01-040106, associated with this SDG. All positive results for these compounds in the SDG samples less than 5X the blank amounts were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

GPC Cleanup was not required for this SDG. No action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

All PIS criteria were met. No action was required.

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

Nitrobenzene was detected at 0.047 ug/L in the method blank, BLK81072, associated with this fraction of the SDG. All positive results for nitrobenzene in the SDG samples less than 5X the blank amount (0.24 ug/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Equipment Blank:

Nitrobenzene was detected at 0.036 ug/L in the equipment blank, MR04-EB04-040106, associated with this fraction of the SDG. As the results for nitrobenzene were previously flagged based on method blank criteria, no further action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL AND DISSOLVED METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the samples and were used for data qualification for both total and dissolved results unless otherwise noted:

Blank ID	Analyte	Max. Conc.
CCB4	aluminum	82.67 ug/L

CCB2	barium-total	0.52 ug/L
MR04-EB04-040106FIL	barium-diss	0.63 ug/L
CCB4	beryllium	0.23 ug/L
CCB4	cadmium	0.47 ug/L
CCB4	calcium	108.58 ug/L
PBW	copper-total	1.1 ug/L
MR04-EB04-040106FIL	copper-diss	1.6 ug/L
CCB4	iron	51.13 ug/L
CCB4	magnesium	135.64 ug/L
CCB2	manganese	0.46 ug/L
CCB3	potassium	16.01 ug/L
CCB4	thallium	3.81 ug/L
PBW	zinc	7.0 ug/L

CCB = Continuing Calibration Blank, MR04-FB01-040106 = Field Blank

As the Prep Blank (W) values for zinc and total copper were between the MDL and the CRDL, all positive results for zinc and total copper in the SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRQL.

As the equipment blank values for dissolved barium and dissolved copper were between the MDL and the CRDL, all positive results for these analytes in the dissolved SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

As the CCB values for the remaining analytes were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL are flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

There were no negative results in the blanks associated with this SDG. No action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A with results greater than the IDL:

barium	1.3 ug/L
cadmium	1.7 ug/L
chromium	1.4 ug/L
cobalt	1.6 ug/L
copper	1.9 ug/L
manganese	8.9 ug/L
nickel	2.2 ug/L
zinc	28.1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was

detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A with the absolute value greater than the IDL:

arsenic	-4.0 ug/L
selenium	-3.5 ug/L
sodium	-620 ug/L
thallium	-4.3 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG sample MR04-MW15-06A for total and dissolved analyses. All Serial Dilution Analysis criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Duplicate Sample Analyses were performed on SDG sample MR04-MW15-06A for total analyses and used as batch QC for dissolved analyses. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG sample MR04-MW15-06A for total analyses and used as batch QC for dissolved analyses. All MS criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

The results for potassium in the initial analysis of SDG samples MR04-MW12-06A, MR04-MW12-06AFIL, MR04-MW06-06A, and MR04-MW06-06AFIL, exceeded the linear calibration range. Dilution analyses were performed for these samples with all calibration criteria met. The results reported on the Form Is were the concentrations corrected for the dilution amount. No action was required.

XI.) Total / Dissolved Metals:

These analytes reported dissolved results that were greater than the total results for the following samples:

Sample ID	Analyte	%D
MR04-MW15-06A	calcium	0.4%
	sodium	1.6%
MR04-MW13-06A	sodium	0.1%

As the Percent Differences (%Ds) were within the 15% QC limit, no action was required.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Batch Matrix Duplicate analysis was performed on sample MR04-MW08-06A. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Batch Matrix Spike analysis was performed on sample MR04-MW08-06A. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-MW08-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Due to high background conductivity, SDG samples MR04-MW12-06A and MR04-MW06-06A were analyzed at a 2X dilution. As the Form Is reflect the dilution analysis results, no action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blank:

Diesel Range Organics were detected at 0.057 mg/L in equipment blank MR04-EB04-040106 associated with this fraction of the SDG. As the results for TPH-DRO were flagged based on field blank criteria, no action was required.

Field Blank:

Diesel Range Organics were detected at 0.063 mg/L in field blank MR04-FB01-040106 associated with this fraction of the SDG. All positive results for TPH-DRO less than 5X the blank amount (0.32 mg/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were not performed for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 20.5% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/12/06, which exceeded the 20% QC limit. As this compound was a surrogate, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 35.5% and 36.6% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/13/06, which exceeded the 25% QC limit. As this compound was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB04-033106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SW10-06A. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch MD analysis was performed on sample MR04-MW08-06A. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch MS analysis was performed on sample MR04-MW08-06A. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis were not performed for this fraction of the SDG. All positive and non-detect results for TOC in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW12-06A. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met.
No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on SDG sample MR04-MW08-06A. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch MS analysis was performed on sample MR04-EB04-040106. As field QC or performance evaluation samples may not be used for matrix spike sample analysis, using professional judgment, all positive results for TOX in the SDG samples were flagged as estimated (J).

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 2004
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Dissolved Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	604010 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-TB04-040106	604010-005	Water	X		
MR04-MW02-06A	604010-006	Water	X	X	X
MR04-SW01-06A	604010-008	Water	X	X	X
MR04-SD01-06A	604010-009	Soil	X	X	X
MR04-SD01-06AMS	604010-009MS	Soil		X	
MR04-SD01-06AMSD	604010-009MSD	Soil		X	
MR04-SW02-06A	604010-010	Water	X	X	X
MR04-SD02-06A	604010-011	Soil	X	X	X
MR04-SD02-06ADL	604010-011DL	Soil			X
MR04-SW03-06A	604010-012	Water	X	X	X
MR04-SD03-06A	604010-013	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SD03-06ADL	604010-013DL	Soil			X
MR04-SD03-06AMS	604010-013MS	Soil			X
MR04-SD03-06AMSDL	604010-013MSDL	Soil			X
MR04-SD03-06AMSD	604010-013MSD	Soil			X

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SD03-06AMSDDL	604010-013MSDDL	Soil			X
MR04-EB05-06A	604010-014	Water	X	X	X
HOLDING BLANK	604010-015	Water	X		
MR04-SD10-06AMS	604011-014MS	Soil	X		
MR04-SD10-06AMSD	604011-014MSD	Soil	X		

Client Sample #	Lab Sample #	Matrix	Explosives	Total Metals	Dissolved Metals
MR04-EB04-040106	604010-001	Water	X	X	
MR04-EB04-040106FIL	604010-002	Water			X
MR04-FB01-040106	604010-003	Water	X	X	
MR04-FB01-040106MD	604010-003MD	Water		X	
MR04-FB01-040106MS	604010-003MS	Water		X	
MR04-FB01-040106FIL	604010-004	Water			X
MR04-MW02-06A	604010-006	Water	X	X	
MR04-MW02-06AFIL	604010-007	Water			X
MR04-SW01-06A	604010-008	Water	X	X	
MR04-SD01-06A	604010-009	Soil	X	X	
MR04-SD01-06AMS	604010-009MS	Soil		X	
MR04-SD01-06AMSD	604010-009MSD	Soil		X	
MR04-SW02-06A	604010-010	Water	X	X	
MR04-SD02-06A	604010-011	Soil	X	X	
MR04-SW03-06A	604010-012	Water	X	X	
MR04-SD03-06A	604010-013	Soil	X	X	
MR04-EB05-06A	604010-014	Water	X	X	
MR04-SD04-06AMS	604011-002MS	Soil	X		
MR04-SD04-06AMSD	604011-002MSD	Soil	X		

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-MW02-06A	604010-006	Water	X	X	X
MR04-SW01-06A	604010-008	Water	X	X	X
MR04-SD01-06A	604010-009	Soil	X	X	X
MR04-SW02-06A	604010-010	Water	X	X	X
MR04-SD02-06A	604010-011	Soil	X	X	X
MR04-SW03-06A	604010-012	Water	X	X	X
MR04-SD03-06A	604010-013	Soil	X	X	X
MR04-EB05-06A	604010-014	Water			X
MR04-SD04-06AMD	604011-001MD	Soil	X		
MR04-SD04-06AMS	604011-001MS	Soil	X	X	
MR04-SD04-06AMSD	604011-001MSD	Soil		X	

Client Sample #	Lab Sample #	Matrix	Cyanide	Perchlorate	TPH-DRO
MR04-SW04-06AMD	604011-001MD	Water	X		
MR04-SW04-06AMS	604011-001MS	Water	X	X	
MR04-SW04-06AMSD	604011-001MSD	Water		X	
MR04-SD05-06AMS	604011-004MS	Soil			X
MR04-SD05-06AMSD	604011-004MSD	Soil			X

Client Sample #	Lab Sample #	Matrix	TPH-GRO	O&G	TOC
MR04-EB04-040106	604010-001	Water	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-TB04-040106	604010-005	Water	X		
MR04-MW02-06A	604010-006	Water	X	X	X
MR04-SW01-06A	604010-008	Water	X	X	X
MR04-SD01-06A	604010-009	Soil	X	X	X
MR04-SW02-06A	604010-010	Water	X	X	X
MR04-SD02-06A	604010-011	Soil	X	X	X
MR04-SW03-06A	604010-012	Water	X	X	X
MR04-SD03-06A	604010-013	Soil	X	X	X
MR04-EB05-06A	604010-014	Water	X	X	
MR04-SD04-06AMD	604011-001MD	Soil		X	X
MR04-SD04-06AMS	604011-001MS	Soil		X	X
MR04-SW04-06AMD	604011-001MD	Water		X	
MR04-MW12-06AMS	604009-006MS	Water			X
MR04-SW10-06AMS	604011-013MS	Water			X
MR04-SW10-06AMSD	604011-013MSD	Water			X
MR04-SD10-06AMS	604011-014MS	Soil			X
MR04-SD10-06AMSD	604011-014MSD	Soil			X

Client Sample #	Lab Sample #	Matrix	TOX
MR04-EB04-040106	604010-001	Water	X
MR04-FB01-040106	604010-003	Water	X
MR04-MW02-06A	604010-006	Water	X
MR04-SW01-06A	604010-008	Water	X
MR04-SD01-06A	604010-009	Soil	X
MR04-SW02-06A	604010-010	Water	X
MR04-SD02-06A	604010-011	Soil	X
MR04-SW03-06A	604010-012	Water	X
MR04-SD03-06A	604010-013	Soil	X
MR04-EB05-06A	604010-014	Water	X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK
Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, D= FIELD DUPLICATE

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 604010 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB04-040106, MR04-EB05-06A, MR04-FB01-040106, MR04-TB04-040106, MR04-MW02-06A, MR04-SD01-06A, MR04-SD02-06A, MR04-SD03-06A, MR04-SW01-06A, MR04-SW02-06A, MR04-SW03-06A, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) in the standards analyzed on 4/5/06 at 07:55 on instrument HP#A exceeded the 25% QC limit for the following compounds:

Compound	%D
acetone	61.3%
2-butanone	42.6%
2-hexanone	27.8%
methyl acetate	34.2%

As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SD01-06A, MR04-SD02-06A, and MR04-SD03-06A.

The Percent Differences (%Ds) were 37.8% for acetone and 36.5% for methyl acetate in the standards analyzed on 4/6/06 at 09:21 on instrument HP#A, which exceeded the 25% QC limit. As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-MW02-06A, MR04-SW01-06A, MR04-SW02-06A, and MR04-SW03-06A. All Field QC samples were also associated, however, as they were QC samples, no further action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB04-040106 and MR04-EB05-06A, for this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB04-040106, associated with this fraction of the SDG. No action was required.

Holding Blank:

There were no detections in the HOLDING BLANK associated with this fraction of the SDG. No action was required.

Tentatively Identified Compounds (TIC):

Ethyl acetate was detected at 5.11 ug/L in field blank MR04-FB01-040106 for this fraction of the SDG. As this compound was not detected in the SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SD10-06A for the soil samples. All MS /MSD criteria were met. No action was required.

MS / MSD analyses were not submitted for the water samples. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD) were 46.5% for benzylaldehyde, 32.5% for 2,4-dinitrophenol, and 45.1% for atrazine in the standards analyzed on 3/31/06 on instrument HP#H, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 4/11/06 at 08:03 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	46.6%
2,2-oxybis(1-chloropropane)	28.1%
n-nitroso-di-n-propylamine	31.6%
caprolactam	25.9%
2-nitroaniline	41.1%
atrazine	35.2%
3,3-dichlorobenzidine	30.2%

As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-MW02-06A, MR04-SW01-06A, and MR04-SW02-06A. The field blank and equipment blank MR04-EB04-040106 were also associated, however as they were QC samples, no further action was required.

The Percent Differences (%D's) in the standards analyzed on 4/12/06 at 11:07 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	50.0%
4-nitroaniline	36.7%
atrazine	39.7%
3,3-dichlorobenzidine	30.5%

As the results for these compounds in the associated SDG sample, MR04-SW03-06A, consisted entirely of non-detects, the results were flagged as estimated (UJ). Equipment blank MR04-EB05-06A was also associated, however, as it was a QC sample, no further action was required.

The Percent Differences (%D's) in the standards analyzed on 4/13/06 at 06:35 on instrument HP#H

exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	52.9%
hexachlorocyclopentadiene	36.9%
2,4-dinitrophenol	42.7%
4-nitroaniline	26.0%
4,6-dinitro-2-methylphenol	30.5%
atrazine	39.1%
benzylbutyl phthalate	25.6%

As the results for these compounds in the associated SDG samples, MR04-SD01-06A and MR04-SD03-06A, consisted entirely of non-detects, the results were flagged as estimated (UJ). The MS / MSD were also associated, however, as they were QC samples, no further action was required.

The Percent Differences (%D's) in the standards analyzed on 4/18/06 at 06:47 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	42.1%
2,2-oxybis(1-chloropropane)	31.9%
n-nitroso-di-n-propylamine	30.5%
caprolactam	34.2%
hexachlorocyclopentadiene	30.2%
4-nitroaniline	43.9%
atrazine	43.9%
di-n-butylphthalate	28.8%
3,3-dichlorobenzidine	27.1%

As the results for these compounds in the associated SDG sample, MR04-SD02-06A, consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blank:

Diethyl phthalate, bis(2-ethylhexyl)phthalate, and di-n-butylphthalate were detected at 2.0 ug/L, 2.9 ug/L, and 4.7 ug/L, respectively, in the equipment blank, MR04-EB04-040106, associated with this fraction of the SDG. All positive results for these compounds in the associated SDG sample, MR04-MW02-06A, less than 10X the blank amounts were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Diethyl phthalate was detected at 1.8 ug/L in the equipment blank, MR04-EB05-06A, associated with this fraction of the SDG. As the results for diethyl phthalate in the associated SDG samples consisted entirely

of non-detects, no action was required.

Field Blank:

Diethyl phthalate was detected at 1.5 ug/L in field blank, MR04-FB01-040106 associated with this SDG. All positive results for diethyl phthalate in the SDG samples less than 10X the blank amount were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Tentatively Identified Compounds (TIC):

Hexadonic acid, benzenesulfonamide, and 9-octadecene were detected at 3.15 ug/L, 4.33 ug/L, and 20 ug/L, respectively, in equipment blank MR04-EB04-040106. As there were no positive results for these compounds in the associated SDG sample, MR04-MW02-06A, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SD01-06A. The Percent Recoveries (%Rs) of two compounds exceeded the QC limits in the MS. The Relative Percent Differences (RPDs) of nine compounds exceeded the 20% QC limit. MS / MSD analyses were not submitted for the aqueous samples. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blanks:

Heptachlor and heptachlor epoxide were detected at 0.030 ug/L and 0.18 ug/L, respectively, in the equipment blank, MR04-EB04-040106, associated with SDG sample MR04-MW02-06A. As the results for these compounds in the SDG samples were flagged based on field blank criteria, no action was required.

Heptachlor epoxide was detected at 0.13 ug/L in the equipment blank, MR04-EB05-06A, associated with SDG samples MR04-SD01-06A, MR04-SD02-06A, and MR04-SD03-06A. As the results for this compound in the associated samples consisted entirely of non-detects, no action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.040 ug/L and 0.19 ug/L, respectively, in the field blank, MR04-FB01-040106, associated with this SDG. All positive results for these compounds in the SDG samples less than 5X the blank amounts were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) of tetrachloro-m-xylene were 163% in sample MR04-SD02-06ADL on the second column, and 164% in sample MR04-SD03-06AMSDDL on the first column, which exceeded the 30-150% QC limits. As the results for MR04-SD02-06ADL were taken from the primary column and sample MR04-SD03-06AMSDDL was a QC sample, no action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples MR04-SD03-06A and MR04-SD03-06ADL for soil analyses. The Percent Recoveries (%Rs) were 1060% and 329% for 4,4'-DDT in the MS and MSD, respectively, for sample MR04-SD03-06, which exceeded the 23-134% QC limits. The Relative Percent Difference (RPD) for this compound was 105%, which exceeded the 20% QC limit. Aqueous MS / MSD analyses were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

The Percent Recoveries (%Rs) were 72% for dieldrin and 72% for 4,4-DDT in the GPC cleanup, which were below the 80-110% QC limits. As there were not interferences noted in the sample chromatographies, based on professional judgment, no action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The column Percent Differences (%Ds) exceeded the 70% QC limit for the following samples:

Sample	Compound	%D
MR04-SW01-06A	eldrin aldehyde	75%
	heptachlor epoxide	125%
MR04-SD02-06A	endosulfan sulfate	212.5%

	endrin ketone	70.0%
MR04-SD03-06A	endosulfan sulfate	227.3%
	endrin ketone	80.0%
MR04-SD03-06AMS	endrin aldehyde	281.0%
MR04-SD03-06AMSD	endrin aldehyde	257.1%
BKS81087	4,4'-DDD	100.0%
BKSD81087	4,4'-DDD	100.0%

All positive results for these compounds in the above samples, with the exception of the QC samples, were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT in the initial analysis of SDG samples MR04-SD03-06A, MR04-SD03-06AMS, and MR04-SD03-06AMSD exceeded the linear calibration range. A 20X dilution analysis was performed for these samples with all calibration criteria met. The results for these compounds on the initial analysis Form Is were rejected (R). The results for the dilution analyses Form Is for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT were of preferable data quality. The Form Is for the dilution analyses were rejected (R) based on redundancy, except for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT.

The result for 4,4'-DDD in the initial analysis of SDG sample MR04-SD02-06A exceeded the linear calibration range. A 20X dilution analysis was performed for this sample with all calibration criteria met. The result for this compound on the initial analysis Form I was rejected (R). The result for the dilution analysis Form I was was of preferable data quality. The Form I for the dilution analysis was rejected (R) based on redundancy, except for 4,4'-DDD.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

Nitrobenzene was detected at 0.047 ug/L in the method blank, BLK81072, associated with this fraction of the SDG. All positive results for nitrobenzene in the associated SDG samples less than 5X the blank amount (0.24 ug/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL. The associated samples were MR04-MW02-06A, MR04-SW01-06A, MR04-SW02-06A, and MR04-SW03-06A. The field blank and equipment blanks were also associated, however, as they were QC samples, no further action was required.

Equipment Blank:

Nitrobenzene was detected at 0.036 ug/L in the equipment blank, MR04-EB04-040106, associated with SDG sample MR04-MW02-06A. As the results for nitrobenzene in this sample were previously flagged based on method blank criteria, no further action was required.

There were no detections in the equipment blank, MR04-EB05-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) was 151% for 4-nitroaniline in sample MR04-EB05-06A, which exceeded the 37-149% QC limit. As this was a QC sample, no action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. The Percent Recovery (%R) was 72% for 1,3,5-trinitrobenzene, which was below the 75-125% QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SD04-06A for soil samples. All MS / MSD criteria were met. No action was required.

Aqueous MS / MSD analyses were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL AND DISSOLVED METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the soil samples and were used for data qualification for the soil results:

Blank ID	Analyte	Max. Conc.
CCB3	aluminum	36.00 ug/L
CCB3	cadmium	0.51 ug/L
PBS	calcium	20.2 mg/kg
PBS	chromium	0.22 mg/kg
CCB3	iron	26.73 ug/L
CCB3	magnesium	67.27 ug/L
CCB2	manganese	0.46 ug/L
CCB2	sodium	62.9 mg/kg

CCB = Continuing Calibration Blank, PBS = Preparation Blank (soils)

As the Prep Blank values for calcium and chromium were between the MDL and the CRDL, all positive results for these analytes in the SDG soil samples less than the CRDL were flagged as undetected (U), with results raised to the CRQL.

As the CCB values for the remaining analytes were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

The following blank results represent the highest detections associated with the total and dissolved aqueous samples and were used for data qualification for the aqueous results:

Blank ID	Analyte	Max. Conc.
CCB4	aluminum	82.67 ug/L
MR04-EB05-06A	barium	0.62 ug/L
CCB4	cadmium	0.47 ug/L
CCB4	calcium	108.58 ug/L
MR04-EB04-040106	copper-total	1.0 ug/L
MR04-EB04-040106FIL	copper-diss	1.6 ug/L
MR04-EB05-06A	copper	1.4 ug/L
CCB6	iron	54.14 ug/L
MR04-EB05-06A	magnesium	145.0 ug/L
Blank ID	Analyte	Max. Conc
PBW	manganese	0.0.27 ug/L
MR04-EB05-06A	sodium	1590 ug/L
CCB4	thallium	3.81 ug/L
PBW	zinc	7.0 ug/L

CCB = Continuing Calibration Blank, PBW = Preparation Blank (waters)
MR04-EB04-040106 & MR04-EB05-06A = Equipment Blanks

As the Prep Blank values for manganese and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG aqueous samples less than the CRDL were flagged as undetected (U), with results raised to the CRQL.

As the Equipment Blank values for the barium, copper, copper total only, copper dissolved only, magnesium, and sodium were between the MDL and the CRDL, all positive results for these analytes in the SDG aqueous samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL. As MR04-EB04-040106 was associated with SDG sample MR04-MW02-06A only, the copper total and dissolved blank values were used for qualifying sample MR04-MW02-06A only.

As the CCB values for the remaining analytes were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

The negative blank results listed below were the highest absolute value negative results for the blanks associated with the soil SDG samples:

Blank ID	Analyte	Max. Conc.
PBS	thallium	-0.586 mg/kg
CCB2	zinc	-1.16 ug/L

The PBS value for thallium was between the negative MDL and the negative CRDL. As the results for thallium in the soil SDG samples consisted entirely of non-detects, no action was required.

The CCB value for zinc was between the negative MDL and the negative CRDL. As the results for

zinc in the soil SDG samples were greater than the CRDL, using professional judgment, no action was taken.

There were no negative blank results for the total and dissolved water analysis. No further action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A analyzed on 4/13/06 with results greater than the IDL:

barium	1.2 ug/L
cadmium	3.3 ug/L
chromium	1.5 ug/L
cobalt	1.8 ug/L
copper	1.3 ug/L
lead	3.8 ug/L
manganese	12.2 ug/L
nickel	2.9 ug/L
zinc	26.1 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was

detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A analyzed on 4/13/06 with the absolute value greater than the IDL:

antimony	-4.0 ug/L
potassium	-16.0 ug/L
sodium	-490 ug/L
thallium	-7.3 ug/L
vanadium	-1.3 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes were detected in the ICS Solution A analyzed on 4/18/06 with results greater than the IDL:

antimony	3.8 ug/L
barium	1.3 ug/L
cadmium	1.7 ug/L
chromium	1.4 ug/L
cobalt	1.9 ug/L
copper	1.9 ug/L
lead	2.4 ug/L
manganese	9.7 ug/L
nickel	2.5 ug/L
zinc	28.1 ug/L

These analytes should not be present. The results for magnesium in SDG samples MR04-SW01-06A and MR04-SW03-06A were 430000 ug/L and 438000 ug/L, respectively, which is comparable to the concentration of magnesium in the ICS Solutions. All positive results for the above analytes in these samples were flagged as estimated high (J+). Since neither aluminum, calcium, nor iron was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, no further action was required.

The following analytes had negative results in the ICS Solution A analyzed on 4/18/06 with the absolute value greater than the IDL:

arsenic	-4.0 ug/L
selenium	-3.5 ug/L
sodium	-620 ug/L
thallium	-4.3 ug/L

The results for magnesium in SDG samples MR04-SW01-06A and MR04-SW03-06A were 430000 ug/L and 438000 ug/L, respectively, which is comparable to the concentration of magnesium in the ICS Solutions. All positive results for the above analytes in these samples less than 10X the negative absolute value were flagged as estimated low (J-). All non-detect results for the above analytes in these samples

were flagged as estimated (UJ).

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG soil sample MR04-SD01-06A. The Percent Difference (%D) was 13% for zinc, which exceeded the 10% QC limit. All positive and non-detect results for zinc in the SDG soil samples were flagged as estimated (J) and (UJ), respectively.

Serial Dilution analysis was performed on SDG aqueous sample MR04-FB01-040106, which was a field QC sample. All Percent Differences (%Ds) were within the 10% QC limit. Using professional judgment, no action was required.

VI.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Duplicate Sample Analyses were performed on SDG soil sample MR04-SD01-06A. The Relative Percent Differences (RPDs) exceeded the 35% QC limit for the following analytes:

Analyte	RPD
aluminum	35%
chromium	64%
iron	70%
vanadium	74%

All positive and non-detect results for these analytes in the soil samples were flagged as estimated (J) and (UJ), respectively.

Duplicate Sample Analyses were performed on SDG samples MR04-FB01-040106 for ICP analyses and MR04-SW03-06A for mercury analysis. As field QC samples are not to be used for MD analyses, using professional judgment, all positive ICP results for the aqueous SDG samples were flagged as estimated (J). All MD criteria were met for mercury analysis. No further action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG soil sample MR04-SD01-06A. The Percent Recovery (%R) was 71% for lead, which was below the 75-125% QC limits. A post spike was analyzed with a Percent Recovery (%R) of 98%. All positive and non-detect results for lead in the soil SDG samples were flagged as estimated (J) and (UJ), respectively.

Matrix Sample Analyses were performed on SDG samples MR04-FB01-040106 for ICP analyses and MR04-SW03-06A for mercury analysis. As all positive ICP results for aqueous samples were previously flagged based on MD criteria, no further action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

The results for potassium and sodium in the initial analyses of SDG samples MR04-SW01-06A and MR04-SW03-06 exceeded the linear calibration range. A 10X dilution analyses was performed for these samples with all calibration criteria met. The results on the Form Is reflect the dilution concentration amount. No action was required.

XI.) Total / Dissolved Metals:

All criteria were met. No action was required.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Batch Matrix Duplicate analysis was performed on sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Batch Matrix Spike analysis was performed on sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Due to high background conductivity, SDG samples MR04-SW02-06A, MR04-SW03-06A, and MR04-SW01-06A were analyzed at dilutions. As the Form Is reflect the dilution analysis results, no action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diesel Range Organics were detected at 0.057 mg/L in equipment blank MR04-EB04-040106 associated with sample MR04-MW02-06A. As the result for TPH-DRO in sample MR04-MW02-06A was flagged

based on field blank criteria, no further action was required.

Diesel Range Organics were detected at 0.78 mg/L (26 mg/kg) in equipment blank MR04-EB05-06A associated with this SDG. All positive results for TPH-DRO in the associated SDG samples less than 5X the blank amount (3.9 mg/L / 130 mg/kg) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL. The associated samples were MR04-SW01-06A, MR04-SW02-06A, MR04-SW03-06A, MR04-SD01-06A, MR04-SD02-06A, and MR04-SD03-06A.

Field Blank:

Diesel Range Organics were detected at 0.063 mg/L in field blank MR04-FB01-040106 associated with this fraction of the SDG. As the positive result in sample MR04-MW02-06A was less than 5X the blank amount, the result was flagged as undetected (U) and raised to the CRQL. As the results for TPH-DRO in the remaining SDG samples were flagged based on the equipment blank MR04-EB05-06A, no further action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SD05-06A for soil samples. All MS / MSD criteria were met. No action was required.

MS / MSD analyses were not submitted for aqueous samples. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 20.5% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/12/06, which exceeded the 20% QC limit. As this compound was a surrogate, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 35.5% and 36.6% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/13/06, which exceeded the 25% QC limit. As this compound was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blank, MR04-EB04-040106, associated with sample MR04-MW02-06A. No action was required.

Gasoline range organics were detected at 30 ug/L in equipment blank MR04-EB05-06A. All positive results for TPH-GRO in the associated SDG samples less than 5X the blank amount were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB04-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SW10-06A for aqueous samples and MR04-SD10-06A for soil samples. The Relative Percent Difference (RPD) was 21% for TPH-GRO in the soil analysis. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB04-040106 and MR04-EB05-06A, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch MD analysis was performed on sample MR04-SD04-06A for soil analyses. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

Batch MS analysis was performed on sample MR04-SD04-06A for soil analyses and sample MR04-SW04-06A for aqueous analyses. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB04-040106, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

Batch MD analysis was performed on sample MR04-SD04-06A for soils samples. All soil MD criteria were met.

MD analysis was not submitted for aqueous samples. All positive and non-detect results for TOC in the aqueous SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-MW12-06A for aqueous samples and MR04-SD04-06A for soil samples. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Due to a timed out instrument error, SDG samples MR04-SW01-06A, MR04-SW02-06A, and MR04-SW03-06A were analyzed at a 5X dilution. The results on the Form Is reflect the dilution concentrations, so no action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

There were no detections in the equipment blanks, MR04-EB04-040106 and MR04-EB05-06A, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. All positive and non-detect results for TOX in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on sample MR04-EB04-040106 for aqueous samples. MS analysis was not submitted for soil samples. As all results were previously flagged based on MD criteria, no further action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

DATA VALIDATION SUMMARY
REPORT

COMPANY:	CH2M HILL
SITE NAME:	Knox Trailer Park, Camp Lejeune, CTO-109
CONTRACTED LABS:	GPL Laboratories, Inc. / Analytical Laboratory Services, Inc.(ALSI)
PROJECT NUMBER:	330966.SA.SM
QA/QC LEVEL:	EPA Level IV
EPA SOW/METHOD:	CLP, SW-846, and EPA Methods
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999, *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2004
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Pesticides / Polychlorinated Biphenyls (PCB), Explosives, Total Metals, Cyanide, Perchlorate, Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon - Gasoline Range Organics (TPH-GRO), Oil and Grease (O&G), Total Organic Carbon (TOC), Total Organic Halides (TOX)
SDG NUMBER:	604011 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SW04-06A	604011-001	Water	X	X	X
MR04-SD04-06A	604011-002	Soil	X	X	X
MR04-SW05-06A	604011-003	Water	X	X	X
MR04-SW05-06AMS	604011-003MS	Water	X		
MR04-SW05-06AMSD	604011-003MSD	Water	X		
MR04-SD05-06A	604011-004	Soil	X	X	X
MR04-SW06-06A	604011-005	Water	X	X	X
MR04-SD06-06A	604011-006	Soil	X	X	X
MR04-SW07-06A	604011-007	Water	X	X	X
MR04-SD07-06A	604011-008	Soil	X	X	X
MR04-SW08-06A	604011-009	Water	X	X	X
MR04-SD08-06A	604011-010	Soil	X	X	X
MR04-SW09-06A	604011-011	Water	X	X	X
MR04-SD01-06AMS	604010-009MS	Soil		X	

Client Sample #	Lab Sample #	Matrix	Volatile Organics	SVOA	Pesticides/ PCB
MR04-SD01-06AMSD	604010-009MSD	Soil		X	
MR04-SD09-06A	604011-012	Soil	X	X	X
MR04-SW10-06A	604011-013	Water	X	X	X
MR04-SD10-06A	604011-014	Soil	X	X	X
HOLDING BLANK	604011-015	Water	X		
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-TB04-040106	604010-005	Water	X		
MR04-EB05-06A	604010-014	Water	X	X	X
MR04-SD01-06AMS	604010-009MS	Soil		X	
MR04-SD01-06AMSD	604010-009MSD	Soil		X	

Client Sample #	Lab Sample #	Matrix	Explosives	Metals	Cyanide
MR04-SW04-06A	604011-001	Water	X	X	X
MR04-SE04-06ADL	604011-001DL	Water		X	
MR04-SW04-06AMD	604011-001MD	Water		X	X
MR04-SW04-06AMS	604011-001MS	Water		X	X
MR04-SD04-06A	604011-002	Soil	X	X	X
MR04-SD04-06AMD	604011-002MD	Soil		X	X
MR04-SD04-06AMS	604011-002MS	Soil	X	X	X
MR04-SD04-06AMSD	604011-002MSD	Soil	X		
MR04-SW05-06A	604011-003	Water	X	X	X
MR04-SW05-06ADL	604011-003DL	Water		X	
MR04-SD05-06A	604011-004	Soil	X	X	X
MR04-SW06-06A	604011-005	Water	X	X	X
MR04-SW06-06ADL	604011-005DL	Water		X	
MR04-SD06-06A	604011-006	Soil	X	X	X
MR04-SW07-06A	604011-007	Water	X	X	X
MR04-SW07-06ADL	604011-007DL	Water		X	
MR04-SD07-06A	604011-008	Soil	X	X	X
MR04-SW08-06A	604011-009	Water	X	X	X
MR04-SD08-06A	604011-010	Soil	X	X	X
MR04-SW09-06A	604011-011	Water	X	X	X
MR04-SD09-06A	604011-012	Soil	X	X	X
MR04-SW10-06A	604011-013	Water	X	X	X
MR04-SD10-06A	604011-014	Soil	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-EB05-06A	604010-014	Water	X	X	

Client Sample #	Lab Sample #	Matrix	Perchlorate	TPH-DRO	TPH-GRO
MR04-SW04-06A	604011-001	Water	X	X	X
MR04-SW04-06AMS	604011-001MS	Water	X		
MR04-SW04-06AMSD	604011-001MSD	Water	X		
MR04-SD04-06A	604011-002	Soil	X	X	X
MR04-SD04-06AMS	604011-002MS	Soil	X		
MR04-SD04-06Amsd	604011-002MSD	Soil	X		
MR04-SW05-06A	604011-003	Water	X	X	X

Client Sample #	Lab Sample #	Matrix	Perchlorate	TPH-DRO	TPH-GRO
MR04-SD05-06A	604011-004	Soil	X	X	X
MR04-SD05-06AMS	604011-004MS	Soil		X	
MR04-SD05-06AMSD	604011-004MSD	Soil		X	
MR04-SW06-06A	604011-005	Water	X	X	X
MR04-SD06-06A	604011-006	Soil	X	X	X
MR04-SW07-06A	604011-007	Water	X	X	X
MR04-SD07-06A	604011-008	Soil	X	X	X
MR04-SW08-06A	604011-009	Water	X	X	X
MR04-SD08-06A	604011-010	Soil	X	X	X
MR04-SW09-06A	604011-011	Water	X	X	X
MR04-SD09-06A	604011-012	Soil	X	X	X
MR04-SW10-06A	604011-013	Water	X	X	X
MR04-SW10-06AMS	604011-013MS	Water			X
MR04-SW10-06AMSD	604011-013MSD	Water			X
MR04-SD10-06A	604011-014	Soil	X	X	X
MR04-SD10-06AMS	604011-014MS	Soil			X
MR04-SD10-06AMSD	604011-014MSD	Soil			X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-TB04-040106	604010-005	Water			X
MR04-EB05-06A	604010-014	Water		X	X

Client Sample #	Lab Sample #	Matrix	O&G	TOC	TOX
MR04-SW04-06A	604011-001	Water	X	X	X
MR04-SW04-06AMD	604011-001MD	Water	X		
MR04-SD04-06A	604011-002	Soil	X	X	X
MR04-SD04-06AMD	604011-002MD	Soil	X		
MR04-SD04-06AMS	604011-002MS	Soil	X		
MR04-SW05-06A	604011-003	Water	X	X	X
MR04-SD05-06A	604011-004	Soil	X	X	X
MR04-SW06-06A	604011-005	Water	X	X	X
MR04-SD06-06A	604011-006	Soil	X	X	X
MR04-SW07-06A	604011-007	Water	X	X	X
MR04-SD07-06A	604011-008	Soil	X	X	X
MR04-SW08-06A	604011-009	Water	X	X	X
MR04-SD08-06A	604011-010	Soil	X	X	X
MR04-SW09-06A	604011-011	Water	X	X	X
MR04-SD09-06A	604011-012	Soil	X	X	X
MR04-SW10-06A	604011-013	Water	X	X	X
MR04-SD10-06A	604011-014	Soil	X	X	X
MR04-FB01-040106	604010-003	Water	X	X	X
MR04-EB05-06A	604010-014	Water	X		X

Sample ID Codes: EB = EQUIPMENT BLANK, TB = TRIP BLANK, FB = FIELD BLANK
Suffix Codes: DL = DILUTION, MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, D= FIELD DUPLICATE

DATA REVIEWERS: Karen S. Becker, Amy L. Hogan, Monalisa B. Beasley

RELEASE SIGNATURE:

DATA QUALIFICATION SUMMARY

GPL Laboratories, Inc. / ALSI - 604011 - Organics, Inorganics and Wet Chemistry / TOX

SAMPLES: MR04-EB05-06A, MR04-FB01-040106, MR04-TB04-040106, MR04-SD04-06A, MR04-SD05-06A, MR04-SD06-06A, MR04-SD07-06A, MR04-SD08-06A, MR04-SD09-06A, MR04-SD10-06A, MR04-SW04-06A, MR04-SW05-06A, MR04-SW06-06A, MR04-SW07-06A, MR04-SW08-06A, MR04-SW09-06A, MR04-SW10-06A, HOLDING BLANK

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standards Deviations (%RSDs) were 31.2% for 2-butanone and 40.4% for acetone in the standards analyzed on 3/23/06 on instrument HP#A, which exceeded the 30% QC limit. All positive results for these compounds in the SDG samples were flagged as estimated (J).

Continuing Calibration:

The Percent Differences (%Ds) in the standards analyzed on 4/5/06 at 07:55 on instrument HP#A exceeded the 25% QC limit for the following compounds:

Compound	%D
acetone	61.3%

2-butanone	42.6%
2-hexanone	27.8%
methyl acetate	34.2%

All positive and non-detect results for these compounds in the soil SDG samples were flagged as estimated (J) and (UJ), respectively.

The Percent Differences (%Ds) were 37.8% for acetone and 36.5% for methyl acetate in the standards analyzed on 4/6/06 at 09:21 on instrument HP#A, which exceeded the 25% QC limit. As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SW04-06A, MR04-SW05-06A, and MR04-SW06-06A. The MS and MSD were also associated, however, as they were QC samples, no further action was required.

The Percent Differences (%Ds) were 25.3% for acetone and 41.5% for 2-butanone in the standards analyzed on 4/7/06 at 07:06 on instrument HP#A, which exceeded the 25% QC limit. As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SW07-06A, MR04-SW08-06A, MR04-SW09-06A, and MR04-SW10-06A. The Holding Blank was also associated, however, as this was a QC sample, no further action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB05-06A, for this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB04-040106, associated with this fraction of the SDG. No action was required.

Holding Blank:

There were no detections in the HOLDING BLANK associated with this fraction of the SDG.
No action was required.

Tentatively Identified Compounds (TIC):

Ethyl acetate was detected at 5.11 ug/L in field blank MR04-FB01-040106 for this fraction of the SDG. As this compound was not detected in the SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample MR04-SD10-06A for the soil samples. All MS /MSD criteria were met. No action was required.

MS / MSD analyses were performed on SDG samples MR04-SW05-06A for aqueous samples. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) Tentatively Identified Compounds (TIC):

All TIC criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD) were 46.5% for benzylaldehyde, 32.5% for 2,4-dinitrophenol, and 45.1% for atrazine in the standards analyzed on 3/31/06 on instrument HP#H, which exceeded the 30% QC limit. As the results for these compounds in the SDG samples consisted entirely of non-detects, no action was required.

Continuing Calibration:

The Percent Differences (%D's) in the standards analyzed on 4/11/06 at 08:03 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	46.6%
2,2-oxybis(1-chloropropane)	28.1%
n-nitroso-di-n-propylamine	31.6%
caprolactam	25.9%
2-nitroaniline	41.1%
atrazine	35.2%
3,3-dichlorobenzidine	30.2%

As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SW04-06A and MR04-SW08-06A.

The Percent Differences (%D's) in the standards analyzed on 4/12/06 at 11:07 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	50.0%
4-nitroaniline	36.7%
atrazine	39.7%
3,3-dichlorobenzidine	30.5%

As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SW05-06A, MR04-SW06-06A, MR04-SW07-06, MR04-SW09-06A, and MR04-SW10-06A.

The Percent Differences (%D's) in the standards analyzed on 4/13/06 at 06:35 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	52.9%
hexachlorocyclopentadiene	36.9%
2,4-dinitrophenol	42.7%
4-nitroaniline	26.0%
4,6-dinitro-2-methylphenol	30.5%
atrazine	39.1%
benzylbutyl phthalate	25.6%

As the results for these compounds in the associated SDG samples consisted entirely of non-detects, the results were flagged as estimated (UJ). The associated samples were MR04-SD04-06A, MR04-SD06-06A, MR04-SD07-06A, MR04-SD09-06A, and MR04-SD10-06A.

The Percent Differences (%D's) in the standards analyzed on 4/18/06 at 06:47 on instrument HP#H exceeded the 25% QC limit for the following compounds:

Compound	%D
benzaldehyde	42.1%
2,2-oxybis(1-chloropropane)	31.9%
n-nitroso-di-n-propylamine	30.5%
caprolactam	34.2%
hexachlorocyclopentadiene	30.2%
4-nitroaniline	43.9%
atrazine	43.9%
di-n-butylphthalate	28.8%
3,3-dichlorobenzidine	27.1%

As the results for these compounds in the associated SDG samples, MR04-SD05-06A and MR04-SD08-06A, consisted entirely of non-detects, the results were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diethyl phthalate was detected at 1.8 ug/L in the equipment blank, MR04-EB05-06A, associated with this fraction of the SDG. All positive results for diethyl phthalate in the SDG soil samples less than 10X the blank amount (18 ug/L) were flagged as undetected (U) with results less than the CRQL being raised to the CRQL.

Field Blank:

Diethyl phthalate was detected at 1.5 ug/L in field blank, MR04-FB01-040106 associated with this SDG. As the results for diethyl phthalate in the SDG aqueous samples consisted entirely of non-detects, and the soil results were previously flagged based on equipment blank criteria, no action was required.

Tentatively Identified Compounds (TIC):

There were no TIC detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on sample MR04-SD01-06A. The Percent Recoveries (%Rs) of two compounds exceeded the QC limits in the MS. The Relative Percent Differences (RPDs) of nine compounds exceeded the 20% QC limit. MS / MSD analyses were not submitted for the aqueous samples. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

PESTICIDES / PCBs

SUMMARY

I.) General:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG.
No action was required.

Equipment Blanks:

Heptachlor epoxide was detected at 0.13 ug/L in the equipment blank, MR04-EB05-06A, associated with the soil SDG samples. As the results for this compound in the associated samples consisted entirely of non-detects, no action was required.

Field Blank:

Heptachlor and heptachlor epoxide were detected at 0.040 ug/L and 0.19 ug/L, respectively, in the field blank, MR04-FB01-040106, associated with this SDG. All positive results for these compounds in the SDG samples less than 5X the blank amounts were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of tetrachloro-m-xylene were 165% in sample MR04-SW05-06A on the second column, which exceeded the 30-150% QC limits. As the results for this sample consisted entirely of non-detects, no action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were performed on samples MR04-SD03-06A and MR04-SD03-06ADL for soil analyses. The Percent Recoveries (%Rs) were 1060% and 329% for 4,4'-DDT in the MS and MSD, respectively, for sample MR04-SD03-06, which exceeded the 23-134% QC limits. The Relative Percent Difference (RPD) for this compound was 105%, which exceeded the 20% QC limit. Aqueous MS / MSD analyses were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Florisil Cleanup:

All Florisil Cleanup criteria were met. No action was required.

X.) GPC Cleanup:

The Percent Recoveries (%Rs) were 72% for dieldrin and 72% for 4,4-DDT in the GPC cleanup, which were below the 80-110% QC limits. As there were not interferences noted in the sample chromatographies, based on professional judgment, no action was taken.

XI.) Pesticide / PCB Identification Summary (PIS):

The column Percent Differences (%Ds) exceeded the 70% QC limit for the following samples:

Sample	Compound	%D
MR04-SD04-06A	eldrin ketone	468.6%
MR04-SD06-06A	4,4'-DDT	81.8%
MR04-SD08-06A	4,4'-DDT	100.0%
	dieldrin	155.8%
	endrin ketone	320.5%
MR04-SW10-06A	heptachlor epoxide	80.0%
MR04-SD09-06A	alpha-chlordane	358.3%
	dieldrin	155.8%
	4,4'-DDT	129.2%
MR04-SD10-06A	4,4'-DDD	158.3%
	endosulfan sulfate	183.3%
	endrin ketone	192.7%

All positive results for these compounds in the above samples were flagged as estimated (J).

XII.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XIII.) System Performance:

All System Performance criteria were met. No action was required.

EXPLOSIVES

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

Nitrobenzene was detected at 0.047 ug/L in the method blank, BLK81072, associated with the aqueous samples for this fraction of the SDG. All positive results for nitrobenzene in the aqueous SDG samples less than 5X the blank amount (0.24 ug/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB05-06A, associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) of 4-nitroaniline exceeded the 37-149% QC limit for the following samples:

Sample	%R
MR04-SW06-06A	173%
MR04-SD04-06A	305%
MR04-SD04-06AMSD	134%
MR04-SD06-06A	291%
MR04-SD07-06A	193%
MR04-SD08-06A	135%
MR04-SD09-06A	174%
MR04-SD10-06A	139%

As the results for these samples consisted entirely of non-detects, no action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. The Percent Recovery (%R) was 72% for 1,3,5-trinitrobenzene in the soil LCS, which was below the 75-125% QC limits. Data qualification based on LCS criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample MR04-SD04-06A for soil samples. All MS / MSD

criteria were met. No action was required.

Aqueous MS / MSD analyses were not submitted for this fraction of the SDG. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems observed for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

III.) CRDL Standards:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Positive Blank Results:

The following blank results represent the highest detections associated with the aqueous samples and were used for data qualification for the aqueous results:

Blank ID	Analyte	Max. Conc.
CCB6	aluminum	91.37 ug/L
MR04-FB01-040106	barium	0.48 ug/L
CCB8	calcium	72.60 ug/L
MR04-FB01-040106	copper	1.1 ug/L
CCB8	iron	36.06 ug/L
CCB8	magnesium	100.29 ug/L
CCB8	manganese	0.24 ug/L
CCB7	potassium	24.09 ug/L
CCB7	sodium	580.44 ug/L
MR04-FB01-040106	zinc	3.4 ug/L

CCB = Continuing Calibration Blank, MR04-FB01-040106 = Field Blank

As the Field Blank values for barium, copper, and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG aqueous samples less than the CRDL were flagged as undetected (U), with results raised to the CRQL.

As the CCB values for the remaining analytes were between the MDL and the CRDL, all positive results for these analytes in the SDG aqueous samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

The following blank results represent the highest detections associated with the soil samples and were used for data qualification for the soil results:

Blank ID	Analyte	Max. Conc.
MR04-EB05-06A	aluminum	1.4 ug/L
MR04-EB05-06A	barium	0.62 ug/L
CCB3	beryllium	0.31 ug/L
MR04-EB05-06A	calcium	107 ug/L
MR04-EB05-06A	copper	1.4 ug/L
CCB2	iron	45.95 ug/L

Blank ID	Analyte	Max. Conc.
PBS81119	lead	0.53 mg/kg
MR04-EB05-06A	magnesium	145.0 ug/L
CCB2	manganese	0.61 ug/L
CCB2	potassium	18.20 ug/L
MR04-EB05-06A	sodium	1590 ug/L
MR04-EB05-06A	zinc	4.5 ug/L

CCB = Continuing Calibration Blank, PBS = Preparation Blank (soils)
MR04-EB05-06A = Equipment Blank

As the Prep Blank value for lead was between the MDL and the CRDL, and all positive results for lead in the SDG soil samples were greater than the CRDL, no action was required.

As the Equipment Blank values for the aluminum, barium, calcium, copper, magnesium, sodium, and zinc were between the MDL and the CRDL, all positive results for these analytes in the SDG soil samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

As the CCB values for the remaining analytes were between the MDL and the CRDL, all positive results for these analytes in the SDG samples less than the CRDL were flagged as undetected (U), with results raised to the CRDL.

Negative Blank Results:

The negative blank results listed below were the highest absolute value negative results for the blanks associated with the soil SDG samples:

Blank ID	Analyte	Max. Conc.
PBS81119	cobalt	-0.22 mg/kg
PBS81119	thallium	-0.8 mg/kg

The PBS values for cobalt and thallium were between the negative MDL and the negative CRDL. As the results for cobalt and thallium in the soil SDG samples consisted entirely of non-detects, no action was required.

There were no negative blank results for the total and dissolved water analysis. No further action was required.

IV.) ICP Interference Check Sample Results:

All Interference Percent Recovery criteria were met. No action was required.

The following analytes were detected in the ICS Solution A for the aqueous samples with results greater than the IDL:

antimony	3.5 ug/L
barium	1.4 ug/L
cadmium	4.5 ug/L
chromium	1.5 ug/L
cobalt	1.6 ug/L
lead	5.9 ug/L
manganese	11.0 ug/L
nickel	2.7 ug/L
zinc	28.3 ug/L

These analytes should not be present. The results for magnesium in SDG samples MR04-SW04-06A and MR04-SW05-06A were 445000 ug/L and 469000 ug/L, respectively, which is comparable to the

concentration of magnesium in the ICS Solutions. All positive results for the above analytes in these samples were flagged as estimated high (J+). Since neither aluminum, calcium, nor iron was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, no further action was required.

The following analytes had negative results in the ICS Solution A for the aqueous samples with the absolute value greater than the IDL:

selenium	-4.0 ug/L
sodium	-240 ug/L
thallium	-12.0 ug/L

The results for magnesium in SDG samples MR04-SW04-06A and MR04-SW05-06A were 445000 ug/L and 469000 ug/L, respectively, which is comparable to the concentration of magnesium in the ICS Solutions. All positive results for the above analytes in these samples less than 10X the negative absolute value were flagged as estimated low (J-). All non-detect results for the above analytes in these samples were flagged as estimated (UJ).

The following analytes were detected in the ICS Solution A for soil samples with results greater than the IDL:

barium	1.2 ug/L
beryllium	0.27 ug/L
cadmium	3.8 ug/L
chromium	1.5 ug/L
cobalt	2.0 ug/L
copper	1.5 ug/L
lead	3.7 ug/L
manganese	11.4 ug/L
nickel	2.6 ug/L
zinc	28.2 ug/L

These analytes should not be present. Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

The following analytes had negative results in the ICS Solution A for soil samples with the absolute value greater than the IDL:

arsenic	-4.0 ug/L
selenium	-3.5 ug/L
sodium	-620 ug/L
thallium	-4.3 ug/L

Since neither aluminum, calcium, iron nor magnesium was detected in any sample at a concentration comparable to or greater than the respective concentration in ICS Solution A, data qualification was not required.

V.) ICP Serial Dilution Analysis:

Serial Dilution analysis was performed on SDG soil sample MR04-SD04-06A. All Serial Dilution criteria were met. No action was required.

Serial Dilution analysis was performed on SDG aqueous sample MR04-SW04-06A. The Percent Difference (%D) was 65% for zinc, which exceeded the 10% QC limit. All positive results for zinc in the SDG aqueous samples were flagged as estimated (J).

VI.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil LCS was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Duplicate Sample Analysis (MD):

Duplicate Sample Analyses were performed on SDG soil sample MR04-SD04-06A. The Relative Percent Differences (RPDs) was 53% for iron , which exceeded the 35% QC limit. All positive and non-detect results for iron in the soil SDG samples were flagged as estimated (J) and (UJ), respectively.

Duplicate Sample Analyses were performed on SDG aqueous sample MR04-SW04-06A. All MD criteria were met. No action was required.

VIII.) Matrix Spike (MS):

Matrix Spike analyses were performed on SDG soil sample MR04-SD04-06A. The Percent Recovery (%R) was 51% for antimony, which was below the 75-125% QC limits. A post spike was analyzed for antimony with a Percent Recovery (%R) of 97%. All positive and non-detect results for antimony in the soil SDG samples were flagged as estimated (J) and (UJ), respectively.

Matrix Sample Analyses were performed on SDG aqueous sample MR04-SW04-06A. The Percent Recovery (%R) was 302% for aluminum, which exceeded the 75-125% QC limit. A post spike was analyzed for aluminum with a Percent Recovery (%R) of 114%. All positive results for aluminum in the aqueous SDG samples were flagged as estimated (J).

IX.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

X.) Sample Result, Calculation/Transcription Verification:

The results for potassium and sodium in the initial analyses of SDG samples MR04-SW04-06A, MR04-SW05-06A, and MR04-SW06-06A exceeded the linear calibration range. Dilution analyses were performed for these samples with all calibration criteria met. The results on the Form Is reflect the dilution concentration amount. No action was required.

The result for sodium in the initial analysis of SDG sample MR04-SW07-06A exceeded the linear calibration range. A dilution analysis was performed for this sample with all calibration criteria met. The results on the Form I reflect the dilution concentration amount. No action was required.

XI.) Quarterly Verification of Instrumental Parameters:

All criteria were met. No action was taken.

CYANIDE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) CRDL Standard:

All CRDL criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil was analyzed for this fraction of the SDG. All LCS criteria were met. No action was required.

VI.) Matrix Duplicate (MD):

Matrix Duplicate analysis was performed on SDG sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MD criteria were met. No action was required.

VII.) Matrix Spike (MS):

Matrix Spike analysis was performed on SDG sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MS criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

PERCHLORATE

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

Surrogate Recovery criteria was not required for this fraction of the SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample MR04-SW04-06A for aqueous analyses and MR04-SD04-06A for soil analyses. All MS / MSD criteria were met. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Due to high background conductivity content, SDG samples MR04-SW04-06A, MR04-SW05-06A, MR04-SW06-06A, and MR04-SW07-06A were analyzed at dilutions. As the Form Is reflect the dilution analysis results, no action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-DRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

Diesel Range Organics were detected at 0.78 mg/L (26 mg/kg) in equipment blank MR04-EB05-06A associated with this SDG. All positive results for TPH-DRO in the soil SDG samples less than 5X the blank amount (130 mg/kg) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Field Blank:

Diesel Range Organics were detected at 0.063 mg/L in field blank MR04-FB01-040106 associated with this fraction of the SDG. All the positive result in the aqueous samples less than 5X the blank amount (0.32 mg/L) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL. As the results for TPH-DRO in the soil SDG samples were flagged based on the equipment blank MR04-EB05-06A, no further action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample MR04-SD05-06A for soil samples. All MS / MSD criteria were met. No action was required.

MS / MSD analyses were not submitted for aqueous samples. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

TPH-GRO

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 20.5% for 4-bromofluorobenzene (BFB) in the standards analyzed on 4/12/06, which exceeded the 20% QC limit. As this compound was a surrogate, no action was required.

Continuing Calibration:

The Percent Differences (%Ds) were 35.5% and 36.6% for 4-bromofluorobenzene (BFB) in the two continuing calibration standards analyzed on 4/13/06, which exceeded the 25% QC limit. As this compound was a surrogate, no action was required.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blanks:

Gasoline range organics were detected at 30 ug/L (30 mg/kg) in equipment blank MR04-EB05-06A. All positive results for TPH-GRO in the soil SDG samples less than 5X the blank amount (500 mg/kg) were flagged as undetected (U), with results less than the CRQL being raised to the CRQL.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

Trip Blank:

There were no detections in the trip blank, MR04-TB04-040106, associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample MR04-SW10-06A for aqueous samples and MR04-SD10-06A for soil samples. The Relative Percent Difference (RPD) was 21% for TPH-GRO in the soil analysis. Data qualification based on MS / MSD criteria alone was not required. No action was taken.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Internal Standards Performance (ISTD):

ISTD criteria were not required. No action was required.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

XII.) System Performance:

All System Performance criteria were met. No action was required.

OIL AND GREASE (O&G)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB05-06A, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

One aqueous LCS and one soil LCS was analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on sample MR04-SD04-06A for soil samples and MR04-SW04-06A for aqueous samples. All MD criteria were met. No action was required.

VI.) Matrix Spike (MS):

MS analysis was performed on sample MR04-SD04-06A for soil analyses and sample MR04-SW04-06A for aqueous analyses. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

TOTAL ORGANIC CARBON (TOC)

SUMMARY
All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was performed on sample MR04-SD04-06A for soils samples.
All soil MD criteria were met.

MD analysis was not submitted for aqueous samples. All positive and non-detect results for TOC in the aqueous SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on SDG sample MR04-SW04-06A for aqueous samples and MR04-SD04-06A for soil samples. All MS criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

Due to high dissolved solids content, all aqueous samples were analyzed initially at dilutions. The results on the Form Is reflect the dilution concentrations, so no action was required.

TOTAL ORGANIC HALIDES (TOX)

SUMMARY

All laboratory data were acceptable with qualification.

MAJOR ISSUES

No major problems were observed in this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Calibration:

All Calibration criteria were met. No action was required.

III.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this fraction of the SDG. No action was required.

Equipment Blank:

There were no detections in the equipment blank, MR04-EB05-06A, associated with this SDG. No action was required.

Field Blank:

There were no detections in the field blank, MR04-FB01-040106, associated with this fraction of the SDG. No action was required.

IV.) Laboratory Control Samples (LCS):

Two aqueous LCSs and one soil LCS were analyzed by the laboratory for this fraction of the SDG. All LCS criteria were met. No action was required.

V.) Matrix Duplicate (MD):

MD analysis was not performed for this fraction of the SDG. All positive and non-detect results for TOX in the SDG samples were flagged as estimated (J) and (UJ), respectively.

VI.) Matrix Spike (MS):

MS analysis was performed on sample MR04-SW04-06A for aqueous samples. The Percent Recovery (%R) was 132%, which exceeded the 80-120% QC limit. MS analyses was not submitted for soil samples. As all results were previously flagged based on MD criteria, no further action was required.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

Phase II Data Validation Summary Report

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA01

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: November 3, 2007

Laboratory: Test America, Inc., Savannah, GA Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-I19-0-1-07C	680-29864-2	Soil
2	MR04-I21-0-1-07C	680-29864-3	Soil
3	MR04-G08-0-1-07C	680-29864-5	Soil
4	MR04-G09-0-1-07C	680-29864-8	Soil
5	MR04-I16-0-1-07C	680-29864-10	Soil
6	MR04-I13D-0-1-07C	680-29864-12	Soil
7	MR04-I18-0-1-07C	680-29864-51	Soil
8	MR04-G10-0-1-07C	680-29864-52	Soil
8MS	MR04-G10-0-1-07CMS	680-29864-52MS	Soil
8MSD	MR04-G10-0-1-07CMSD	680-29864-52MSD	Soil
9	MR04-I14-0-1-07C	680-29864-55	Soil
10	MR04-I15-0-1-07C	680-29864-57	Soil
11	MR04-J11-0-1-07C	680-29864-59	Soil
12	MR04-J13D-0-1-07C	680-29864-62	Soil
13	MR04-J14-0-1-07C	680-29864-64	Soil
14	MR04-J13-0-1-07C	680-29864-66	Soil
15	MR04-H01-0-1-07C	680-29864-68	Soil
16	MR04-G01-0-1-07C	680-29864-70	Soil
17	MR04-H08-0-1-07C	680-29864-72	Soil
17DL	MR04-H08-0-1-07CDL	680-29864-72DL	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
5	Tetrachloro-m-xylene	180%	J
	Decachlorobiphenyl	180%	J
9	Tetrachloro-m-xylene	162%	J
13	Tetrachloro-m-xylene	550%	J
	Decachlorobiphenyl	488%	J

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
8	gamma-BHC	14%/Ok/123	J/UJ
	Heptachlor	13%/Ok/116	J/UJ
	Aldrin	14%/Ok/98	J/UJ
	Dieldrin	Ok/Ok/55	None for RPD
	Endrin	Ok/Ok/53	None for RPD
	4,4;-DDT	Ok/Ok/55	None for RPD

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB090607-SS	None	ND	-	-	-
MR04-EB090507-SS	None	ND	-	-	-
MR04-FB090707-S	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J13-0-1-07C ug/kg	MR04-J13D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	5.2	15	97%	None
Dieldrin	0.65	1.1	51%	None
4,4'-DDD	0.68	2.1	102%	None
4,4'-DDT	6.6	16	83%	None

Compound	MR04-I13-0-1-07C ug/kg	MR04-I13D-0-1-07C ug/kg	RPD	Qualifier
Gamma-Chlordane	2.3U	4.7	NC	None
Alpha-Chlordane	5.7	17	100%	None
4,4'-DDE	1.1	5.4	132%	None
Dieldrin	4.5U	0.47	NC	None
Endrin	4.5U	1.1	NC	None
4,4'-DDT	0.78	16	181%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - EDS sample ID #17 exhibited a high concentration of 4,4'-DDE and was flagged (E) by the laboratory. The sample was diluted and reanalyzed and the dilution result should be used for reporting.

The following samples exhibited compounds with high %D values between columns.

Sample ID	Compound	%D	Qualifier
2	4,4'-DDD	25.0%	J
3	4,4'-DDD	35.3%	J
4	Dieldrin	174.%	J
	4,4'-DDT	25.6%	J
6	gamma-chlordane	36.2%	J
	Dieldrin	91.5%	J
	4,4'-DDD	400.0%	J
7	gamma-chlordane	66.7%	J
	alpha-chlordane	267.8%	J
	4,4'-DDE	27.8%	J
	4,4'-DDD	999.9%	J
	4,4'-DDT	42.8%	J
11	Dieldrin	28.3%	J
12	Dieldrin	81.8%	J
14	4,4'-DDD	61.8%	J
15	4,4'-DDT	123.4%	J
16	Aldrin	36.0%	J
	4,4'-DDD	66.7%	J
17	Dieldrin	100.0%	J
17DL	Dieldrin	140.0%	J

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA04

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: November 5, 2007

Laboratory: Test America, Inc., Savannah, GA Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-G20-0-1-0-1-07C	680-29955-46	Soil
2	MR04-H19-0-1-07C	680-29955-47	Soil
2MS	MR04-H19-0-1-07CMS	680-29955-47MS	Soil
2MSD	MR04-H19-0-1-07CMSD	680-29955-47MSD	Soil
3	MR04-G19D-0-1-07C	680-29955-48	Soil
4	MR04-K10-0-1-07C	680-29955-49	Soil
5	MR04-J10D-0-1-07C	680-29955-50	Soil
5DL	MR04-J10D-0-1-07CDL	680-29955-50DL	Soil
6	MR04-J10-0-1-07C	680-29955-51	Soil
7	MR04-I02-0-1-07C	680-29955-52	Soil
8	MR04-L09-0-1-07C	680-29955-53	Soil
9	MR04-G21-0-1-07C	680-29955-54	Soil
10	MR04-G24-0-1-07C	680-29955-55	Soil
11	MR04-G23-0-1-07C	680-29955-56	Soil
12	MR04-H21-0-1-07C	680-29955-57	Soil
13	MR04-G22-0-1-07C	680-29955-58	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
3	TCX1	19%	J/UJ
	TCX2	18%	
	DCB1	19%	
	DCB2	18%	
11	TCX1	20%	J/UJ
	TCX2	19%	
	DCB1	22%	
	DCB2	19%	

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB090807-SS	None	ND	-	-	-
MR04-FB090707-S	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J10-0-1-07C ug/kg	MR04-J10D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	46	23	67%	None
Dieldrin	4.2	9.1 U	NC	None
Endrin	2.6	9.1U	NC	None
4,4'-DDD	1.7	15	159%	None
4,4'-DDT	22	330	175%	None

Compound	MR04-G19-0-1-07C ug/kg	MR04-G19D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	1.6	3.2	67%	None
Endrin	4.5U	0.83	NC	None

Compound	MR04-G19-0-1-07C ug/kg	MR04-G19D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDT	1.8	4.4	84%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - EDS sample ID #5 exhibited a high concentration of 4,4'-DDT and was qualified (E) by the laboratory. The sample was diluted and reanalyzed and the dilution result should be used for reporting purposes.

The following samples exhibited compounds with high %D values between columns.

Sample ID	Compound	%D	Qualifier
1	4,4'-DDT	27.3%	J
4	Dieldrin	41.7%	J
6	Endrin	26.9%	J
	4,4'-DDD	123.5%	J
7	4,4'-DDT	46.8%	J
9	Endrin	90.5%	J
11	Endosulfan I	136.8%	J
12	4,4'-DDD	60.0%	J

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA05

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: November 5, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-N11-07C	680-29999-1	Soil
1MS	MR04-N11-07CMS	680-29999-1MS	Soil
1MSD	MR04-N11-07CMSD	680-29999-1MSD	Soil
2	MR04-IS28-9-11-07C	680-29999-2	Soil
3	MR04-IS29-10-12-07C	680-29999-3	Soil
4	MR04-IS30-10-12-07C	680-29999-4	Soil
5	MR04-EB091007-SB	680-29999-5	Soil
6	MR04-G07-07C	680-29999-6	Soil
7	MR04-G06-07C	680-29999-7	Soil
8	MR04-G05-07C	680-29999-8	Soil
9	MR04-FB091107-S	680-29999-9	Soil
10	MR04-IS25-9-11-07C	680-29999-10	Soil
11	MR04-IS27-9-11-07C	680-29999-11	Soil
12	MR04-IS26-12-14-07C	680-29999-12	Soil
13	MR04-IS24-9-11-07C	680-29999-13	Soil
14	MR04-H23-07C	680-29999-14	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values except the following.

ICAL Date	Compound	%RSD/RRF	Qualifier	Affected Samples
09/13/07	Acetone	32.5%	J	6-8, 14

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
09/21/07	Bromoform	100%	J/UJ	8, 14
	Chloroethane	25.5%	J/UJ	8, 14

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks were free of contamination.

Trip, Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-TB091107-A	Acetone	1.5	15	U	4
MR04-EB091107	None	ND	-	-	-
MR04-FB091107-A	Acetone	1.2	12	None	See TB091107-A

Field Duplicates - Field duplicate samples were not included in this data package

.

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA06

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: November 6, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C09-0-1-07C	680-29999-43	Soil
1MS	MR04-C09-0-1-07CMS	680-29999-43MS	Soil
1MSD	MR04-C09-0-1-07CMSD	680-29999-43MSD	Soil
2	MR04-H22-0-1-07C	680-29999-44	Soil
3	MR04-H22D-0-1-07C	680-29999-45	Soil
4	MR04-B04-0-1-07C	680-29999-46	Soil
5	MR04-M13-0-1-07C	680-29999-47	Soil
6	MR04-O04D-0-1-07C	680-29999-48	Soil
7	MR04-M14D-0-1-07C	680-29999-49	Soil
8	MR04-O02-0-1-07C	680-29999-50	Soil
9	MR04-O04-0-1-07C	680-29999-51	Soil
10	MR04-O03-0-1-07C	680-29999-52	Soil
11	MR04-O01-0-1-07C	680-29999-53	Soil
12	MR04-O05-0-1-07C	680-29999-54	Soil
13	MR04-N10-0-1-07C	680-29999-55	Soil
14	MR04-M14-0-1-07C	680-29999-56	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
2	TCX1	30%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
1	gamma-BHC	37%/Ok/Ok	J/UJ
	Heptachlor	33%/Ok/52	J/UJ
	Aldrin	27%/Ok/52	J/UJ

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR04-EB091107	None	ND	-	-	-
MR04-FB091107-A	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-H22-0-1-07C ug/kg	MR04-H22D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	4.2U	1.2	NC	None
Dieldrin	4.2U	0.40	NC	None
4,4'-DDT	4.2U	3.5	NC	None

Compound	MR04-M14-0-1-07C ug/kg	MR04-M14D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	2.9	4.6	45%	None
Dieldrin	0.73	0.50	37%	None
Endrin	0.83	1.7	69%	None
4,4'-DDD	3.8U	0.44	NC	None
4,4'-DDT	2.8	4.6	49%	None

Compound	MR04-O04-0-1-07C ug/kg	MR04-O04D-0-1-07C ug/kg	RPD	Qualifier
4,4'-DDE	0.65	2.0	102%	None
4,4'-DDT	0.54	1.9	111%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - EDS sample ID #4 exhibited high concentrations of 4,4'-DDE and was qualified (E) by the laboratory. The sample was reanalyzed at a 5X dilution. The reviewer replaced the original results with the dilution results on the form Is. The original form Is should be used for reporting purposes.

The following samples exhibited compounds with high %D values between columns.

Sample ID	Compound	%D	Qualifier
1	4,4'-DDD	33.3%	J
3	4,4'-DDT	25.7%	J
4	4,4'-DDD	30.0%	J
7	4,4'-DDE	56.5%	J
	Dieldrin	120.0%	J
	Endrin	64.7%	J
	4,4'-DDD	100.0%	J
	4,4'-DDT	35.8%	J
9	4,4'-DDT	63.0%	J
12	4,4'-DDT	37.0%	J
14	Endrin	32.5%	J

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA08

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 13, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-07D	680-31162-1	Soil
2	MR04-N09-07D	680-31162-2	Soil
3	MR04-N08-07D	680-31162-3	Soil
4	MR04-M11-07D	680-31162-4	Soil
5	MR04-N07-07D	680-31162-5	Soil
6	MR04-M10-07D	680-31162-6	Soil
7	MR04-N06-07D	680-31162-7	Soil
8	MR04-M09-07D	680-31162-10	Soil
9	MR04-M08-07D	680-31162-11	Soil
10	MR04-M08D-07D	680-31162-12	Soil
11	MR04-M06-07D	680-31162-17	Soil
12	MR04-N01-07D	680-31162-18	Soil
13	MR04-K06-07D	680-31162-21	Soil
13MS	MR04-K06-07DMS	680-31162-21MS	Soil
13MSD	MR04-K06-07DMSD	680-31162-21MSD	Soil
14	MR04-M01-07D	680-31162-22	Soil
15	MR04-L04-07D	680-31162-23	Soil
16	MR04-K05-07D	680-31162-24	Soil
17	MR04-L03-07D	680-31162-25	Soil
18	MR04-K07-07D	680-31162-26	Soil
19	MR04-K08-07D	680-31162-27	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/20/07	Acetone	31.6%	J/UJ	1, 3, 4, 6-8, 11, 12
10/21/07	Dichlorodifluoromethane	25.5%	J/UJ	2, 9, 10, 13
	Acetone	33.0%	J/UJ	2, 9, 10, 13
10/22/07	Acetone	29.6%	J/UJ	14-19
	Methylcyclohexane	25.1%	J/UJ	14-19

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
3	4-Bromofluorobenzene	233%	J
4	Toluene-d8	139%	J

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria except the following.

Sample ID	Internal Standard	Area Count	Qualifier
6	Chlorobenzene-d5	Low	J/UJ

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
MB680-89026/5	Toluene	1.8	-	None	All ND

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-07D ug/kg	MR04-M08D-07D ug/kg	RPD	Qualifier
Acetone	110	270	84%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone over the calibration range and were flagged (E) by the laboratory. Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results as estimated (J).

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA09

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 13, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	680-31162-8	Water
2	MR04-TB101707	680-31162-9	Water
3	MR04-M07-07D	680-31162-13	Soil
4	MR04-N05-07D	680-31162-14	Soil
5	MR04-N04-07D	680-31162-15	Soil
6	MR04-N03-07D	680-31162-16	Soil
7	MR04-M03-07D	680-31162-19	Soil
8	MR04-M02-07D	680-31162-20	Soil
9	MR04-TB101807	680-31205-4	Water
10	MR04-EB101707	680-31205-5	Water
11	MR04-I05-07D	680-31205-16	Soil
12	MR04-FB101807	680-31205-17	Water
13	MR04-EB101807	680-31205-18	Water
14	MR04-J04-07D	680-31205-19	Soil
15	MR04-K04-07D	680-31205-20	Soil
16	MR04-K03-07D	680-31205-21	Soil
16MS	MR04-K03-07DMS	680-31205-21MS	Soil
16MSD	MR04-K03-07DMSD	680-31205-21MSD	Soil
17	MR04-L01-07D	680-31205-22	Soil
18	MR04-L02-07D	680-31205-23	Soil
19	MR04-K02-07D	680-31205-24	Soil
20	MR04-K01-07D	680-31205-25	Soil
21	MR04-J03-07D	680-31205-26	Soil
22	MR04-J02-07D	680-31205-27	Soil
23	MR04-J02D-07D	680-31205-28	Soil
24	MR04-J01-07D	680-31205-29	Soil
25	MR04-J01D-07D	680-31205-30	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for preserved water and soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/20/07	Acetone	31.6%	J/UJ	4-6
10/21/07	Dichlorodifluoromethane	25.5%	J/UJ	3, 7, 8
	Acetone	33.3%	J/UJ	3, 7, 8
10/22/07	Acetone	29.6%	J/UJ	1, 2
	Methylcyclohexane	25.1%	J/UJ	1, 2
10/25/07	Acetone	33.0%	J/UJ	9-13, 15-18, 20, 23
10/26/07	Acetone	34.2%	J/UJ	14, 19, 21, 22, 24, 25
	2-Butanone	31.0%	J/UJ	14, 19, 21, 22, 24, 25
	2-Hexanone	26.3%	J/UJ	14, 19, 21, 22, 24, 25

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
2	1,2-Dichloroethane-d4	115%	None - ND
5	1,2-Dichloroethane-d4	125%	J - Positive Results
17	4-Bromofluorobenzene	218%	J - Positive Results

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
MB680-89026/5	Toluene	1.8	-	None	All ND

Trip, Field, Equipment Blank - All field QC samples were non-detect

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J02-07D ug/kg	MR04-J02D-07D ug/kg	RPD	Qualifier
Acetone	90	630	150%	None
2-Butanone	6.4	48	153%	None

Compound	MR04-J01-07D ug/kg	MR04-J01D-07D ug/kg	RPD	Qualifier
Acetone	280	490	55%	None
2-Butanone	12	31	88%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone over the calibration range and were flagged (E) by the laboratory. Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results as estimated (J).

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA10

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 13, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-07D	680-31205-1	Soil
2	MR04-L05-07D	680-31205-2	Soil
3	MR04-J09-07D	680-31205-3	Soil
4	MR04-I10-07D	680-31205-6	Soil
5	MR04-I09-07D	680-31205-7	Soil
6	MR04-I08-07D	680-31205-8	Soil
7	MR04-J08-07D	680-31205-9	Soil
8	MR04-J08D-07D	680-31205-10	Soil
9	MR04-J07-07D	680-31205-11	Soil
10	MR04-J06-07D	680-31205-12	Soil
11	MR04-I07-07D	680-31205-13	Soil
12	MR04-I06-07D	680-31205-14	Soil
13	MR04-J05-07D	680-31205-15	Soil
14	MR04-E08-07D	680-31205-18	Soil
15	MR04-D02-07D	680-31205-19	Soil
16	MR04-D02D-07D	680-31205-20	Soil
17	MR04-D03-07D	680-31205-21	Soil
17MS	MR04-D03-07DMS	680-31205-21MS	Soil
17MSD	MR04-D03-07DMSD	680-31205-21MSD	Soil
18	MR04-D04-07D	680-31205-22	Soil
19	MR04-E09-07D	680-31205-23	Soil
20	MR04-D05-07D	680-31205-24	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/24/07	Acetone	26.7%	J/UJ	14-16
10/26/07 0916	Acetone	34.2%	J/UJ	2, 3, 6
	2-Butanone	31.0%	J/UJ	2, 3, 6
	2-Hexanone	26.3%	J/UJ	2, 3, 6
10/26/07 1940	Acetone	31.9%	J/UJ	1, 4, 5, 7-13
10/27/07	Acetone	29.0%	J/UJ	17-20

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
1	4-Bromofluorobenzene	117%	J - Positive Results
3	4-Bromofluorobenzene	144%	J - Positive Results
	Toluene-d8	158%	

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria except the following.

Sample ID	Internal Standard	Area Count	Qualifier
3	Chlorobenzene-d5	Low	J/UJ

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
MB680-90303	2-Butanone	7.3	73	U	1, 7, 8, 10

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08D-07D ug/kg	MR04-J08D-07D ug/kg	RPD	Qualifier
Acetone	210	330	44%	None

Compound	MR04-D02-07D ug/kg	MR04-D02D-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone over the calibration range and were flagged (E) by the laboratory. Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results as estimated (J).

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA11

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 14, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-TB101907	680-31247-1	Water
2	MR04-I04-07D	680-31247-2	Soil
3	MR04-I03-07D	680-31247-3	Soil
4	MR04-I01-07D	680-31247-4	Soil
5	MR04-I01D-07D	680-31247-5	Soil
6	MR04-F04-07D	680-31247-6	Soil
7	MR04-E03-07D	680-31247-7	Soil
8	MR04-F05-07D	680-31247-8	Soil
9	MR04-E04-07D	680-31247-9	Soil
10	MR04-E05-07D	680-31247-10	Soil
11	MR04-F07-07D	680-31247-11	Soil
12	MR04-E06-07D	680-31247-12	Soil
13	MR04-E07-07D	680-31247-13	Soil
14	MR04-D01-07D	680-31247-14	Soil
15	MR04-EB101907	680-31247-15	Water
16	MR04-F08-07D	680-31247-16	Soil
17	MR04-F09-07D	680-31247-17	Soil
18	MR04-F06-07D	680-31247-25	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/24/07	Acetone	26.7%	J/UJ	1, 6, 11-14, 16, 17
10/27/07	Acetone	29.0%	J/UJ	18

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - A MS/MSD sample was not analyzed.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks were free of contamination.

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-07D ug/kg	MR04-I01D-07D ug/kg	RPD	Qualifier
Acetone	120	120	0%	None
2-Butanone (MEK)	4.8	8.0	50%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA12

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 14, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102007	680-31287-11	Water
2	MR04-E12-07D	680-31287-16	Soil
3	MR04-E13-07D	680-31287-17	Soil
4	MR04-D10-07D	680-31287-18	Soil
5	MR04-D11-07D	680-31287-19	Soil
6	MR04-EB102107	680-31287-24	Water
7	MR04-TB102107	680-31287-25	Water
8	MR04-A01-07D	680-31287-36	Soil
8MS	MR04-A01-07DMS	680-31287-36MS	Soil
8MSD	MR04-A01-07DMSD	680-31287-36MSD	Soil
9	MR04-A02-07D	680-31287-37	Soil
9MS	MR04-A02-07DMS	680-31287-37MS	Soil
9MSD	MR04-A02-07DMSD	680-31287-37MSD	Soil
10	MR04-B05-07D	680-31287-38	Soil
11	MR04-B05D-07D	680-31287-39	Soil
12	MR04-A03-07D	680-31287-40	Soil
13	MR04-A03D-07D	680-31287-41	Soil
14	MR04-B06-07D	680-31287-42	Soil
15	MR04-B06D-07D	680-31287-43	Soil
16	MR04-A04-07D	680-31287-44	Soil
17	MR04-B07-07D	680-31287-45	Soil
18	MR04-A05-07D	680-31287-46	Soil
19	MR04-B08-07D	680-31287-47	Soil
20	MR04-EB102207	680-31287-48	Water
21	MR04-TB102207	680-31287-49	Water

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/29/07	Acetone	30.4%	J/UJ	4, 5
	2-Butanone	26.5%	J/UJ	4, 5
	2-Hexanone	25.7%	J/UJ	4, 5
10/30/07	Acetone	39.4%	J/UJ	8
	2-Butanone	30.6%	J/UJ	8
	2-Hexacnone	32.8%	J/UJ	8

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
2	1,2-Dichloroethane-d4	0%	J/R
	Toluene-d8	140%	
3	Toluene-d8	162%	J

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria except the following.

Sample ID	Internal Standard	Area Count	Qualifier
2	All IS	Severely Low	J/R
3	IS3=Chlorobenzene-d5	Low	J/UJ
9	IS3=Chlorobenzene-d5	Low	J/UJ

Method Blank - The method blanks were free of contamination.

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-07D ug/kg	MR04-B05D-07D ug/kg	RPD	Qualifier
1,2-Dichloroethane	4.6	11U	NC	None
Acetone	25	58	80%	None

Compound	MR04-A03-07D ug/kg	MR04-A03D-07D ug/kg	RPD	Qualifier
Acetone	7.5	13U	NC	None

Compound	MR04-B06-07D ug/kg	MR04-B06D-07D ug/kg	RPD	Qualifier
1,2-Dichloroethane	11U	5.0	NC	None
Acetone	46	11U	NC	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone over the calibration range and were flagged (E). Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results estimated (J).

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA13

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 14, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-07D	680-31287-1	Soil
2	MR04-C02-07D	680-31287-2	Soil
3	MR04-C03-07D	680-31287-3	Soil
4	MR04-C04-07D	680-31287-4	Soil
5	MR04-D08-07D	680-31287-5	Soil
5MS	MR04-D08-07DMS	680-31287-5MS	Soil
5MSD	MR04-D08-07DMSD	680-31287-5MSD	Soil
6	MR04-D09-07D	680-31287-6	Soil
7	MR04-D06-07D	680-31287-7	Soil
8	MR04-D06D-07D	680-31287-8	Soil
9	MR04-E10-07D	680-31287-9	Soil
10	MR04-D07-07D	680-31287-10	Soil
11	MR04-E11-07D	680-31287-12	Soil
12	MR04-F10-07D	680-31287-13	Soil
13	MR04-F11-07D	680-31287-14	Soil
14	MR04-F11D-07D	680-31287-15	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/27/07	Acetone	29.0%	J/UJ	4-10, 13
10/29/07	Acetone	30.4%	J/UJ	1-3, 11, 12, 14
	2-Butanone	26.5%	J/UJ	1-3, 11, 12, 14
	2-Hexanone	25.7%	J/UJ	1-3, 11, 12, 14

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
2	Bromofluorobenzene	129%	J
10	1,2-Dichloroethane-d4	122%	J
	Toluene-d8	139%	J

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria except the following.

Sample ID	Internal Standard	Area Count	Qualifier
10	IS3=Chlorobenzene-d5	Low	J/UJ

Method Blank - The method blanks were free of contamination.

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-F11-07D ug/kg	MR04-F11D-07D ug/kg	RPD	Qualifier
Acetone	5300	370	174%	None
Methyl acetate	3200	62	192%	None
2-Butanone (MEK)	270	15	179%	None

Compound	MR04-D06-07D ug/kg	MR04-D06D-07D ug/kg	RPD	Qualifier
Acetone	33	220	148%	None

Compound	MR04-D06-07D ug/kg	MR04-D06D-07D ug/kg	RPD	Qualifier
Benzene	0.55	14 U	NC	None
Methyl acetate	7.7	630	195%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone over the calibration range and were flagged (E). Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results estimated (J).

EDS sample ID # 9 exhibited high concentrations of methyl acetate and was flagged (E) by the laboratory. Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results estimated (J).

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CJGA14

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 14, 2007

Laboratory: Test America, Inc., Savannah, Georgia Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-07D	680-31287-20	Soil
2	MR04-B03-07D	680-31287-21	Soil
3	MR04-B02-07D	680-31287-22	Soil
4	MR04-B01-07D	680-31287-23	Soil
5	MR04-E24-07D	680-31287-26	Soil
6	MR04-G25-07D	680-31287-27	Soil
7	MR04-D13-07D	680-31287-28	Soil
8	MR04-D14-07D	680-31287-29	Soil
9	MR04-C10-07D	680-31287-30	Soil
10	MR04-C11-07D	680-31287-31	Soil
11	MR04-C12-07D	680-31287-32	Soil
12	MR04-C13-07D	680-31287-33	Soil
13	MR04-C14-07D	680-31287-34	Soil
14	MR04-C15-07D	680-31287-35	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were analyzed within 14 days for soil samples.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/30/07	Acetone	39.4%	J/UJ	1-8, 10, 11, 13
	2-Butanone	30.6%	J/UJ	1-8, 10, 11, 13
	2-Hexanone	32.8%	J/UJ	1-8, 10, 11, 13

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
6	1,2-Dichloroethane-d4	0%	J/R
	Bromofluorobenzene	0%	J/R

MS/MSD - A MS/MSD sample was not analyzed.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria except the following.

Sample ID	Internal Standard	Area Count	Qualifier
14	Chlorobenzene-d5	Low	J/UJ

Method Blank - The method blanks were free of contamination.

Trip, Field, Equipment Blank - All field QC samples were non-detect.

Field Duplicates - Field duplicate samples were not included in this data package.

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - Several samples exhibited high concentrations of acetone and methyl acetate over the calibration range and were flagged (E) by the laboratory. Per the clients approval, soil samples with column values less than 1000 ppb did not require analysis. The reviewer further qualified these results estimated as (J).

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT19

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-0-1-07D	728592	Soil
2	MR04-N09-0-1-07D	728593	Soil
3	MR04-N08-0-1-07D	728594	Soil
4	MR04-M11-0-1-07D	728595	Soil
5	MR04-N07-0-1-07D	728596	Soil
6	MR04-M10-0-1-07D	728597	Soil
7	MR04-N06-0-1-07D	728598	Soil
8	MR04-M09-0-1-07D	728599	Soil
9	MR04-M08-0-1-07D	728600	Soil
10	MR04-M08D-0-1-07D	728601	Soil
11	MR04-M06-0-1-07D	728602	Soil
12	MR04-N01-0-1-07D	728603	Soil
13	MR04-M01-0-1-07D	728604	Soil
14	MR04-K06-0-1-07D	728605	Soil
14MS	MR04-K06-0-1-07DMS	728605MS	Soil
14MSD	MR04-K06-0-1-07DMSD	728605MSD	Soil
15	MR04-L04-0-1-07D	728606	Soil
16	MR04-K05-0-1-07D	728607	Soil
17	MR04-L03-0-1-07D	728608	Soil
18	MR04-K07-0-1-07D	728609	Soil
19	MR04-K08-0-1-07D	728610	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101707	4-Nitrotoluene	11	-	None	All ND
MR04-FB101807	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-0-1-07D ug/kg	MR04-M08D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT19

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-0-1-07D	728592	Soil
2	MR04-N09-0-1-07D	728593	Soil
3	MR04-N08-0-1-07D	728594	Soil
4	MR04-M11-0-1-07D	728595	Soil
5	MR04-N07-0-1-07D	728596	Soil
6	MR04-M10-0-1-07D	728597	Soil
7	MR04-N06-0-1-07D	728598	Soil
8	MR04-M09-0-1-07D	728599	Soil
9	MR04-M08-0-1-07D	728600	Soil
10	MR04-M08D-0-1-07D	728601	Soil
11	MR04-M06-0-1-07D	728602	Soil
12	MR04-N01-0-1-07D	728603	Soil
13	MR04-M01-0-1-07D	728604	Soil
14	MR04-K06-0-1-07D	728605	Soil
14MS	MR04-K06-0-1-07DMS	728605MS	Soil
14MSD	MR04-K06-0-1-07DMSD	728605MSD	Soil
15	MR04-L04-0-1-07D	728606	Soil
16	MR04-K05-0-1-07D	728607	Soil
17	MR04-L03-0-1-07D	728608	Soil
18	MR04-K07-0-1-07D	728609	Soil
19	MR04-K08-0-1-07D	728610	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Sodium	6.398 mg/kg	-	U	All Samples
Mercury	0.057	-	U	2, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19
Zinc	3.798	-	U	14-19

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB101707	None - ND	-	-	-	-
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
14	Antimony	45%	J/UJ	All samples
	Zinc	143%	J	1-13

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-0-1-07D mg/kg	MR04-M08D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	2690	2900	8%	None
Arsenic	1.5	1.4	7%	None
Barium	32.3	31.1	4%	None
Beryllium	0.029	0.036	22%	None
Calcium	1310	1540	16%	None
Cadmium	0.059	0.072	20%	None
Cobalt	0.19	0.19	0%	None
Chromium	3.6	3.9	8%	None
Copper	3.2	3.7	14%	None
Iron	2880	2830	2%	None
Magnesium	121	147	19%	None
Manganese	12.7	14.5	13%	None
Nickel	0.78	0.87	11%	None
Lead	13.5	14.1	4%	None
Potassium	131	153	15%	None
Vanadium	6.6	7.4	11%	None
Zinc	8.1	9.1	12%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT19

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-0-1-07D	728592	Soil
2	MR04-N09-0-1-07D	728593	Soil
3	MR04-N08-0-1-07D	728594	Soil
4	MR04-M11-0-1-07D	728595	Soil
5	MR04-N07-0-1-07D	728596	Soil
6	MR04-M10-0-1-07D	728597	Soil
7	MR04-N06-0-1-07D	728598	Soil
8	MR04-M09-0-1-07D	728599	Soil
9	MR04-M08-0-1-07D	728600	Soil
10	MR04-M08D-0-1-07D	728601	Soil
11	MR04-M06-0-1-07D	728602	Soil
12	MR04-N01-0-1-07D	728603	Soil
13	MR04-M01-0-1-07D	728604	Soil
14	MR04-K06-0-1-07D	728605	Soil
14MS	MR04-K06-0-1-07DMS	728605MS	Soil
14MSD	MR04-K06-0-1-07DMSD	728605MSD	Soil
15	MR04-L04-0-1-07D	728606	Soil
16	MR04-K05-0-1-07D	728607	Soil
17	MR04-L03-0-1-07D	728608	Soil
18	MR04-K07-0-1-07D	728609	Soil
19	MR04-K08-0-1-07D	728610	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101707	None - ND	-	-	-	-
MR04-FB101807	None - ND	-	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-0-1-07D ug/kg	MR04-M08D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT19

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-0-1-07D	728592	Soil
2	MR04-N09-0-1-07D	728593	Soil
3	MR04-N08-0-1-07D	728594	Soil
3DL	MR04-N08-0-1-07DDL	728594DL	Soil
4	MR04-M11-0-1-07D	728595	Soil
5	MR04-N07-0-1-07D	728596	Soil
6	MR04-M10-0-1-07D	728597	Soil
7	MR04-N06-0-1-07D	728598	Soil
7DL	MR04-N06-0-1-07DDL	728598DL	Soil
8	MR04-M09-0-1-07D	728599	Soil
8DL	MR04-M09-0-1-07DDL	728599DL	Soil
9	MR04-M08-0-1-07D	728600	Soil
9DL	MR04-M08-0-1-07DDL	728600DL	Soil
10	MR04-M08D-0-1-07D	728601	Soil
10DL	MR04-M08D-0-1-07DDL	728601DL	Soil
11	MR04-M06-0-1-07D	728602	Soil
12	MR04-N01-0-1-07D	728603	Soil
13	MR04-M01-0-1-07D	728604	Soil
14	MR04-K06-0-1-07D	728605	Soil
14MS	MR04-K06-0-1-07DMS	728605MS	Soil
14MSD	MR04-K06-0-1-07DMSD	728605MSD	Soil
15	MR04-L04-0-1-07D	728606	Soil
15RE	MR04-L04-0-1-07DRE	728606RE	Soil
16	MR04-K05-0-1-07D	728607	Soil
17	MR04-L03-0-1-07D	728608	Soil
18	MR04-K07-0-1-07D	728609	Soil
19	MR04-K08-0-1-07D	728610	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days except for EDS sample ID #15. This sample was re-extracted outside of holding times and all results were qualified (J/UJ). The reanalysis results should be used for reporting purposes.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
15	TCX1	29%	J/UJ
	DCB1	24%	
	DCB2	26%	

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101707	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-0-1-07D ug/kg	MR04-M08D-0-1-07D ug/kg	RPD	Qualifier
Heptachlor epoxide	2.6	3.3	24%	None
Endosulfan I	0.91	1.3	35%	None
Dieldrin	3.4	4.5	28%	None

Compound	MR04-M08-0-1-07D ug/kg	MR04-M08D-0-1-07D ug/kg	RPD	Qualifier
4,4'-DDE	95	95	0%	None
Endrin	2.8	3.6	25%	None
Endosulfan II	2.2	2.5	13%	None
4,4'-DDD	2.1	3.1	38%	None
4,4'-DDT	36	45	22%	None
Endrin ketone	3.7 U	2.2	NC	None
Endrin aldehyde	2.2	4.6	71%	None
gamma-Chlordance	5.2	6.7	25%	None
Aroclor 1260	75	110	38%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited high concentrations of target compounds and were flagged (E) by the laboratory. The samples were reanalyzed at a dilution. The reviewer replaced the original results with the dilution results on the Form Is.

Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified as estimated (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT19

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-M12-0-1-07D	728592	Soil
2	MR04-N09-0-1-07D	728593	Soil
3	MR04-N08-0-1-07D	728594	Soil
4	MR04-M11-0-1-07D	728595	Soil
5	MR04-N07-0-1-07D	728596	Soil
6	MR04-M10-0-1-07D	728597	Soil
7	MR04-N06-0-1-07D	728598	Soil
8	MR04-M09-0-1-07D	728599	Soil
9	MR04-M08-0-1-07D	728600	Soil
10	MR04-M08D-0-1-07D	728601	Soil
11	MR04-M06-0-1-07D	728602	Soil
12	MR04-N01-0-1-07D	728603	Soil
13	MR04-M01-0-1-07D	728604	Soil
14	MR04-K06-0-1-07D	728605	Soil
14MS	MR04-K06-0-1-07DMS	728605MS	Soil
14MSD	MR04-K06-0-1-07DMSD	728605MSD	Soil
15	MR04-L04-0-1-07D	728606	Soil
16	MR04-K05-0-1-07D	728607	Soil
17	MR04-L03-0-1-07D	728608	Soil
18	MR04-K07-0-1-07D	728609	Soil
19	MR04-K08-0-1-07D	728610	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values except the following.

ICAL Date	Compound	%RSD/RRF	Qualifier	Affected Samples
10/12/07	2,4-Dinitrophenol	31.7%	None	All ND

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/29/07	Hexachlorocyclopentadiene	37.4%	J/UJ	1-10
	2,4-Dinitrophenol	36.4%	J/UJ	1-10
	Pentachlorophenol	31.4%	J/UJ	1-10
	4,6-Dinitro-2-methylphenol	27.9%	J/UJ	1-10
	Di-n-octylphthalate	32.8%	J/UJ	1-10
10/31/07	Pyrene	28.7%	J/UJ	11
11/01/07	2,4-Dinitrophenol	27.3%	J/UJ	12-19
	Pyrene	28.7%	J/UJ	12-19

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
8	2-Fluorobiphenyl	118%	None for 1 out
12	2-Fluorobiphenyl	117%	None for 1 out
16	2-Fluorobiphenyl	140%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values. .

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
SBLKZ4	Caprolactam	30	150	U	3, 5, 6, 8
	bis (2-Ethylhexyl) phthalate	43	430	U	1-4, 6-10, 14, 16, 18

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR04-EB101707	Caprolactam	5	833	U	1, 2, 4, 7, 14
MR04-FB101807	None	ND	ND	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-M08-0-1-07D ug/kg	MR04-M08D-0-1-07D ug/kg	RPD	Qualifier
Acetophenone	23	30	26%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and aldol condensates (R) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT20

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	728615	Water
2	MR04-M03-0-1-07D	728616	Soil
3	MR04-M02-0-1-07D	728617	Soil
4	MR04-M07-0-1-07D	728618	Soil
5	MR04-N05-0-1-07D	728619	Soil
6	MR04-N04-0-1-07D	728620	Soil
7	MR04-N03-0-1-07D	728621	Soil
7MS	MR04-N03-0-1-07DMS	728621MS	Soil
7MSD	MR04-N03-0-1-07DMSD	728621MSD	Soil
8	MR04-K03-0-1-07D	728801	Soil
8MS	MR04-K03-0-1-07DMS	728801MS	Soil
8MSD	MR04-K03-0-1-07DMSD	728801MSD	Soil
9	MR04-L01-0-1-07D	728802	Soil
10	MR04-L02-0-1-07D	728803	Soil
11	MR04-K02-0-1-07D	728804	Soil
12	MR04-K01-0-1-07D	728805	Soil
13	MR04-J03-0-1-07D	728806	Soil
14	MR04-J02-0-1-07D	728807	Soil
15	MR04-J02D-0-1-07D	728808	Soil
16	MR04-J01-0-1-07D	728809	Soil
17	MR04-J01D-0-1-07D	728810	Soil
18	MR04-FB101807	728811	Water
19	MR04-I05-0-1-07D	728812	Soil
20	MR04-EB101707	728813	Water
21	MR04-EB101807	728814	Water
22	MR04-J04-0-1-07D	728815	Soil
23	MR04-K04-0-1-07D	728816	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
7	4-Amino-2,6-Dinitrotoluene	Ok/85%/Ok	J/UJ

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101607	None	ND	ND	-	-
MR04-EB101707	4-Nitrotoluene	11	-	None	All ND
MR04-EB101807	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J01-0-1-07D ug/kg	MR04-J01D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-J02-0-1-07D ug/kg	MR04-J02D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - The following samples exhibited compounds with high %D values between columns.

Sample ID	Compound	%D	Qualifier
20	4-Nitrotoluene	110%	J

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT20

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	728615	Water
2	MR04-M03-0-1-07D	728616	Soil
3	MR04-M02-0-1-07D	728617	Soil
4	MR04-M07-0-1-07D	728618	Soil
5	MR04-N05-0-1-07D	728619	Soil
6	MR04-N04-0-1-07D	728620	Soil
7	MR04-N03-0-1-07D	728621	Soil
7MS	MR04-N03-0-1-07DMS	728621MS	Soil
7MSD	MR04-N03-0-1-07DMSD	728621MSD	Soil
8	MR04-K03-0-1-07D	728801	Soil
8MS	MR04-K03-0-1-07DMS	728801MS	Soil
8MSD	MR04-K03-0-1-07DMSD	728801MSD	Soil
9	MR04-L01-0-1-07D	728802	Soil
10	MR04-L02-0-1-07D	728803	Soil
11	MR04-K02-0-1-07D	728804	Soil
12	MR04-K01-0-1-07D	728805	Soil
13	MR04-J03-0-1-07D	728806	Soil
14	MR04-J02-0-1-07D	728807	Soil
15	MR04-J02D-0-1-07D	728808	Soil
16	MR04-J01-0-1-07D	728809	Soil
17	MR04-J01D-0-1-07D	728810	Soil
18	MR04-FB101807	728811	Water
19	MR04-I05-0-1-07D	728812	Soil
20	MR04-EB101707	728813	Water
21	MR04-EB101807	728814	Water
22	MR04-J04-0-1-07D	728815	Soil
23	MR04-K04-0-1-07D	728816	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Sodium	5.580 mg/kg	-	U	All Soil Samples
Beryllium	0.154	-	U	18
Cadmium	0.669	-	U	All Water Samples
Manganese	0.335	-	U	All Water Samples
Nickel	4.428	-	U	18, 21
Lead	6.017	-	U	All Water Samples
Nickel	1.055	-	U	All Soil Samples

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB101607	Chromium	0.18	-	None	All >CRDL
MR04-EB101707	None - ND	-	-	-	-
MR04-EB101807	None - ND	-	-	-	-
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
8	Antimony	66%	J/UJ	8-17, 19, 22, 23
	Zinc	147%	J	All Soil Samples
7	Zinc	142%	J	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J02-0-1-07D mg/kg	MR04-J02D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	3900	4040	4%	None
Antimony	0.27	4.9U	NC	None
Arsenic	1.4	0.95	38%	None
Barium	14.4	15.6	8%	None
Beryllium	0.081	0.082	1%	None
Calcium	234	219	7%	None
Cobalt	0.13	0.14	7%	None
Chromium	2.6	2.5	4%	None
Copper	0.76	0.84	10%	None
Iron	2140	1920	11%	None
Magnesium	98.5	102	3%	None
Mercury	0.021	0.027	25%	None
Manganese	11.8	12.6	7%	None
Nickel	0.91	0.94	3%	None
Lead	8.8	8.2	7%	None
Potassium	70.6	78.2	10%	None
Selenium	0.32	0.24	29%	None
Vanadium	5.7	5.1	11%	None
Zinc	2.7	2.7	0%	None

Compound	MR04-J01-0-1-07D mg/kg	MR04-J01D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	4490	4420	2%	None
Arsenic	1.2	1.2	0%	None
Barium	15.3	13.0	16%	None
Beryllium	0.092	0.072	24%	None
Calcium	359	233	43%	None
Cobalt	0.18	0.18	0%	None
Chromium	4.1	4.1	0%	None
Copper	0.96	0.80	18%	None
Iron	2570	2640	3%	None
Magnesium	118	120	2%	None
Mercury	0.029	0.030	3%	None
Manganese	11.6	10.1	14%	None
Nickel	1.1	0.92	18%	None
Lead	8.5	6.7	24%	None
Potassium	103	120	15%	None
Selenium	0.24	0.27	12%	None
Vanadium	6.2	7.0	12%	None
Zinc	2.9	2.4	19%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT20

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	728615	Water
2	MR04-M03-0-1-07D	728616	Soil
3	MR04-M02-0-1-07D	728617	Soil
4	MR04-M07-0-1-07D	728618	Soil
5	MR04-N05-0-1-07D	728619	Soil
6	MR04-N04-0-1-07D	728620	Soil
7	MR04-N03-0-1-07D	728621	Soil
8	MR04-K03-0-1-07D	728801	Soil
8MS	MR04-K03-0-1-07DMS	728801MS	Soil
8MSD	MR04-K03-0-1-07DMSD	728801MSD	Soil
9	MR04-L01-0-1-07D	728802	Soil
10	MR04-L02-0-1-07D	728803	Soil
11	MR04-K02-0-1-07D	728804	Soil
12	MR04-K01-0-1-07D	728805	Soil
13	MR04-J03-0-1-07D	728806	Soil
14	MR04-J02-0-1-07D	728807	Soil
15	MR04-J02D-0-1-07D	728808	Soil
16	MR04-J01-0-1-07D	728809	Soil
17	MR04-J01D-0-1-07D	728810	Soil
18	MR04-FB101807	728811	Water
19	MR04-I05-0-1-07D	728812	Soil
20	MR04-EB101707	728813	Water
21	MR04-EB101807	728814	Water
22	MR04-J04-0-1-07D	728815	Soil
23	MR04-K04-0-1-07D	728816	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101607	None	ND	-	-	-
MR04-EB101707	None	ND	-	-	-
MR04-EB101807	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J01-0-1-07D ug/kg	MR04-J01D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-J02-0-1-07D ug/kg	MR04-J02D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT20

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	728615	Water
2	MR04-M03-0-1-07D	728616	Soil
3	MR04-M02-0-1-07D	728617	Soil
4	MR04-M07-0-1-07D	728618	Soil
5	MR04-N05-0-1-07D	728619	Soil
6	MR04-N04-0-1-07D	728620	Soil
7	MR04-N03-0-1-07D	728621	Soil
8	MR04-K03-0-1-07D	728801	Soil
8MS	MR04-K03-0-1-07DMS	728801MS	Soil
8MSD	MR04-K03-0-1-07DMSD	728801MSD	Soil
9	MR04-L01-0-1-07D	728802	Soil
10	MR04-L02-0-1-07D	728803	Soil
11	MR04-K02-0-1-07D	728804	Soil
12	MR04-K01-0-1-07D	728805	Soil
13	MR04-J03-0-1-07D	728806	Soil
14	MR04-J02-0-1-07D	728807	Soil
15	MR04-J02D-0-1-07D	728808	Soil
16	MR04-J01-0-1-07D	728809	Soil
17	MR04-J01D-0-1-07D	728810	Soil
18	MR04-FB101807	728811	Water
19	MR04-I05-0-1-07D	728812	Soil
20	MR04-EB101707	728813	Water
21	MR04-EB101807	728814	Water
22	MR04-J04-0-1-07D	728815	Soil
23	MR04-K04-0-1-07D	728816	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7days for water samples, 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
PBLKQ3	Endrin aldehyde	1.9	9.5	B	3, 4, 6, 10-17, 19, 22, 23

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101607	gamma-Chlordane	0.053	-	None	All ND
MR04-EB101707	None	ND	-	-	-
MR04-EB101807	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J01-0-1-07D ug/kg	MR04-J01D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-J02-0-1-07D ug/kg	MR04-J02D-0-1-07D ug/kg	RPD	Qualifier
4,4'-DDE	2.7	2.6	4%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - The following samples exhibited compounds with high %D values between columns.

Sample ID	Compound	%D	Qualifier
1	gamma-Chlordane	183%	J
6	4,4'-DDT	35%	J

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT20

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB101607	728615	Water
2	MR04-M03-0-1-07D	728616	Soil
3	MR04-M02-0-1-07D	728617	Soil
4	MR04-M07-0-1-07D	728618	Soil
5	MR04-N05-0-1-07D	728619	Soil
6	MR04-N04-0-1-07D	728620	Soil
7	MR04-N03-0-1-07D	728621	Soil
8	MR04-K03-0-1-07D	728801	Soil
8MS	MR04-K03-0-1-07DMS	728801MS	Soil
8MSD	MR04-K03-0-1-07DMSD	728801MSD	Soil
9	MR04-L01-0-1-07D	728802	Soil
10	MR04-L02-0-1-07D	728803	Soil
11	MR04-K02-0-1-07D	728804	Soil
11DL	MR04-K02-0-1-07DDL	728804DL	Soil
12	MR04-K01-0-1-07D	728805	Soil
13	MR04-J03-0-1-07D	728806	Soil
14	MR04-J02-0-1-07D	728807	Soil
15	MR04-J02D-0-1-07D	728808	Soil
16	MR04-J01-0-1-07D	728809	Soil
17	MR04-J01D-0-1-07D	728810	Soil
18	MR04-FB101807	728811	Water
19	MR04-I05-0-1-07D	728812	Soil
20	MR04-EB101707	728813	Water
21	MR04-EB101807	728814	Water
22	MR04-J04-0-1-07D	728815	Soil
23	MR04-K04-0-1-07D	728816	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values except the following.

ICAL Date	Compound	%RSD/RRF	Qualifier	Affected Samples
10/12/07	2,4-Dinitrophenol	31.7%	None	All ND

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
10/24/07	Benzaldehyde	29.7%	J/UJ	1, 18, 20, 21
	Hexachlorocyclopentadiene	38.0%	J/UJ	1, 18, 20, 21
	2,4-Dinitrophenol	30.1%	J/UJ	1, 18, 20, 21
	4,6-Dinito-2-methylphenol	28.7%	J/UJ	1, 18, 20, 21
	Pentachlorophenol	28.4%	J/UJ	1, 18, 20, 21
11/01/07	2,4-Dinitrophenol	27.3%	J/UJ	8-12, 14
	Pyrene	28.7%	J/UJ	8-12, 14

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
9	Terphenyl-d14	153%	None for 1 out
10	2-Fluorobiphenyl	117%	None for 1 out
11	2-Fluorobiphenyl	165%	None for 1 out
13	2-Fluorobiphenyl	121%	None for 1 out
16	2-Fluorobiphenyl	116%	None for 1 out
19	Terphenyl-d14	138%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
8	Phenol	94%/Ok/Ok	None - ND
	2-Chlorophenol	103%//Ok/Ok	None - ND
	2,4-Dinitrotoluene	105%/Ok/Ok	None - ND
	4-Nitrophenol	116%/Ok/Ok	None - ND
	Pentachlorophenol	122%/Ok/Ok	None - ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
SLCSZ1	4-Nitrophenol	92%	None	All ND

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
SBLKZ1	Di-n-butylphthalate	1	10	None	All ND
	Butylbenzylphthalate	0.5	5.0	None	All ND
	bis (2-Ethylhexyl) phthalate	0.9	9.0	None	All ND

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
SBLKZ5	Acetophenone	46	230	U	8-12, 19
	bis (2-Ethylhexyl) phthalate	18	180	U	8-12, 14-16, 19, 22
SBLK5Z	Acetophenone	49	245	U	2-7

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101607	None	ND	ND	-	-
MR04-EB101707	Caprolactam	5	833	None	All ND
MR04-EB101807	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J01-0-1-07D ug/kg	MR04-J01D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-J02-0-1-07D ug/kg	MR04-J02D-0-1-07D ug/kg	RPD	Qualifier
Butylbenzylphthalate	38	41	8%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - EDS sample ID #11 exhibited a high concentration of di-n-butylphthalate over the calibration range and was flagged (E) by the laboratory. The samples were reanalyzed at a dilution and the reviewer replaced the original result with dilution result on the Form I.

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT21

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-0-1-07D	728829	Soil
2	MR04-L05-0-1-07D	728830	Soil
3	MR04-J09-0-1-07D	728831	Soil
4	MR04-I10-0-1-07D	728832	Soil
5	MR04-I09-0-1-07D	728833	Soil
6	MR04-I08-0-1-07D	728834	Soil
7	MR04-J08-0-1-07D	728835	Soil
8	MR04-J08D-0-1-07D	728836	Soil
9	MR04-J07-0-1-07D	728837	Soil
10	MR04-J06-0-1-07D	728838	Soil
11	MR04-I07-0-1-07D	728839	Soil
12	MR04-I06-0-1-07D	728840	Soil
13	MR04-J05-0-1-07D	728841	Soil
14	MR04-E08-0-1-07D	729039	Soil
15	MR04-D02-0-1-07D	729040	Soil
16	MR04-D02D-0-1-07D	729041	Soil
17	MR04-D03-0-1-07D	729042	Soil
17MS	MR04-D03-0-1-07DMS	729042MS	Soil
17MSD	MR04-D03-0-1-07DMSD	729042MSD	Soil
18	MR04-D04-0-1-07D	729043	Soil
19	MR04-E09-0-1-07D	729044	Soil
20	MR04-D05-0-1-07D	729045	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
11	S2=1,2-Dinitrobenzene	115%	None - All ND

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-
MR04-EB101807	None	ND	ND	-	-
MR04-EB101707	4-Nitrotoluene	11	-	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08-0-1-07D ug/kg	MR04-J08D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-D02-0-1-07D ug/kg	MR04-D02D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT21

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-0-1-07D	728829	Soil
2	MR04-L05-0-1-07D	728830	Soil
3	MR04-J09-0-1-07D	728831	Soil
4	MR04-I10-0-1-07D	728832	Soil
5	MR04-I09-0-1-07D	728833	Soil
6	MR04-I08-0-1-07D	728834	Soil
7	MR04-J08-0-1-07D	728835	Soil
8	MR04-J08D-0-1-07D	728836	Soil
9	MR04-J07-0-1-07D	728837	Soil
10	MR04-J06-0-1-07D	728838	Soil
11	MR04-I07-0-1-07D	728839	Soil
12	MR04-I06-0-1-07D	728840	Soil
13	MR04-J05-0-1-07D	728841	Soil
14	MR04-E08-0-1-07D	729039	Soil
15	MR04-D02-0-1-07D	729040	Soil
16	MR04-D02D-0-1-07D	729041	Soil
17	MR04-D03-0-1-07D	729042	Soil
17MS	MR04-D03-0-1-07DMS	729042MS	Soil
17MSD	MR04-D03-0-1-07DMSD	729042MSD	Soil
18	MR04-D04-0-1-07D	729043	Soil
19	MR04-E09-0-1-07D	729044	Soil
20	MR04-D05-0-1-07D	729045	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Copper	0.283 mg/kg	-	U	1, 2, 3, 6, 7, 8, 9, 10, 11, 18
Mercury	0.057	-	U	1-15
Nickel	0.980	-	U	1-8
Cadmium	0.076 mg/kg	-	U	All Samples
Antimony	0.313 mg/kg	-	U	1-6, 8, 9, 10, 12, 14-20

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB101707	None - ND	-	-	-	-
MR04-EB101807	None - ND	-	-	-	-
MR04-EB101907	Antimony	2.6	-	None	Already Qualified
	Chromium	0.22	-	None	All >CRDL
	Manganese	0.20	-	None	All >CRDL
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
17	Antimony	62%	J/UJ	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MS Sample ID	Compound	RPD	Qualifier	Affected Samples
17	Lead	23%	J/UJ	All Soil Samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08-0-1-07D mg/kg	MR04-J08D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	4300	3990	7%	None
Arsenic	0.47	0.36	27%	None
Barium	17.4	15.5	12%	None
Beryllium	0.019	0.54	186%	None
Calcium	328	284	14%	None
Cobalt	0.13	0.17	27%	None
Chromium	4.2	4.2	0%	None
Iron	2600	2730	5%	None
Magnesium	129	131	2%	None
Manganese	11.2	14.2	24%	None
Sodium	15.9	16.7	5%	None
Lead	7.0	8.1	15%	None
Potassium	170	178	5%	None
Vanadium	7.2	7.5	4%	None
Zinc	15.6	15.7	1%	None

Compound	MR04-D02-0-1-07D mg/kg	MR04-D02D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	4520	4780	6%	None
Arsenic	1.0	1.3	26%	None
Barium	14.8	15.4	4%	None
Beryllium	0.058	0.051	13%	None
Calcium	1340	1530	13%	None
Cobalt	0.29	0.29	0%	None
Chromium	6.5	6.4	2%	None
Copper	3.4	3.3	3%	None
Iron	3480	3420	2%	None
Magnesium	195	206	5%	None
Mercury	0.44U	0.059	NC	None
Manganese	14.2	14.0	1%	None
Sodium	22.2	23.7	7%	None
Nickel	1.4	1.5	7%	None
Lead	35.0	35.2	1%	None
Potassium	181	198	9%	None
Vanadium	8.2	8.5	4%	None
Zinc	45.3	40.0	12%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT21

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-0-1-07D	728829	Soil
2	MR04-L05-0-1-07D	728830	Soil
3	MR04-J09-0-1-07D	728831	Soil
4	MR04-I10-0-1-07D	728832	Soil
5	MR04-I09-0-1-07D	728833	Soil
6	MR04-I08-0-1-07D	728834	Soil
7	MR04-J08-0-1-07D	728835	Soil
8	MR04-J08D-0-1-07D	728836	Soil
9	MR04-J07-0-1-07D	728837	Soil
10	MR04-J06-0-1-07D	728838	Soil
11	MR04-I07-0-1-07D	728839	Soil
12	MR04-I06-0-1-07D	728840	Soil
13	MR04-J05-0-1-07D	728841	Soil
14	MR04-E08-0-1-07D	729039	Soil
15	MR04-D02-0-1-07D	729040	Soil
16	MR04-D02D-0-1-07D	729041	Soil
17	MR04-D03-0-1-07D	729042	Soil
17MS	MR04-D03-0-1-07DMS	729042MS	Soil
17MSD	MR04-D03-0-1-07DMSD	729042MSD	Soil
18	MR04-D04-0-1-07D	729043	Soil
19	MR04-E09-0-1-07D	729044	Soil
20	MR04-D05-0-1-07D	729045	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-
MR04-EB101807	None	ND	ND	-	-
MR04-EB101707	None	ND	ND	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08-0-1-07D ug/kg	MR04-J08D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-D02-0-1-07D ug/kg	MR04-D02D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT21

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-0-1-07D	728829	Soil
2	MR04-L05-0-1-07D	728830	Soil
3	MR04-J09-0-1-07D	728831	Soil
4	MR04-I10-0-1-07D	728832	Soil
4DL	MR04-I10-0-1-07DDL	728832DL	Soil
5	MR04-I09-0-1-07D	728833	Soil
6	MR04-I08-0-1-07D	728834	Soil
7	MR04-J08-0-1-07D	728835	Soil
7DL	MR04-J08-0-1-07DDL	728835DL	Soil
8	MR04-J08D-0-1-07D	728836	Soil
8DL	MR04-J08D-0-1-07DDL	728836DL	Soil
9	MR04-J07-0-1-07D	728837	Soil
10	MR04-J06-0-1-07D	728838	Soil
11	MR04-I07-0-1-07D	728839	Soil
11DL	MR04-I07-0-1-07DDL	728839DL	Soil
12	MR04-I06-0-1-07D	728840	Soil
12DL	MR04-I06-0-1-07DDL	728840DL	Soil
13	MR04-J05-0-1-07D	728841	Soil
13DL	MR04-J05-0-1-07DDL	728841DL	Soil
14	MR04-E08-0-1-07D	729039	Soil
14DL	MR04-E08-0-1-07DDL	729039DL	Soil
15	MR04-D02-0-1-07D	729040	Soil
15DL	MR04-D02-0-1-07DDL	729040DL	Soil
16	MR04-D02D-0-1-07D	729041	Soil
17	MR04-D03-0-1-07D	729042	Soil
17MS	MR04-D03-0-1-07DMS	729042MS	Soil
17MSD	MR04-D03-0-1-07DMSD	729042MSD	Soil
18	MR04-D04-0-1-07D	729043	Soil
19	MR04-E09-0-1-07D	729044	Soil
20	MR04-D05-0-1-07D	729045	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
17	DCB1	154%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
PBLKQ4	Endrin aldehyde	1.9	9.5	U	2, 4, 7, 12-15, 15DL, 16, 19

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-
MR04-EB101807	None	ND	ND	-	-
MR04-EB101707	None	ND	ND	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08-0-1-07D ug/kg	MR04-J08D-0-1-07D ug/kg	RPD	Qualifier
4,4'-DDE	120	170	34%	None
Endrin	4.7	4.7 U	NC	None
4,4'-DDD	6.8	9.2	30%	None
4,4'-DDT	23	28	20%	None

Compound	MR04-D02-0-1-07D ug/kg	MR04-D02D-0-1-07D ug/kg	RPD	Qualifier
Dieldrin	16	11	37%	None
4,4'-DDE	66	63	5%	None
4,4'-DDD	12	5.3	77%	None
4,4'-DDT	130	76	52%	None
Aroclor-1260	62	48	25%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited high concentrations of target compounds and were flagged (E) by the laboratory. The samples were reanalyzed at various dilutions. The reviewer replaced the original results with the dilution results on the Form Is.

Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified as estimated (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT21

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 9, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-L06-0-1-07D	728829	Soil
2	MR04-L05-0-1-07D	728830	Soil
3	MR04-J09-0-1-07D	728831	Soil
4	MR04-I10-0-1-07D	728832	Soil
5	MR04-I09-0-1-07D	728833	Soil
6	MR04-I08-0-1-07D	728834	Soil
7	MR04-J08-0-1-07D	728835	Soil
8	MR04-J08D-0-1-07D	728836	Soil
9	MR04-J07-0-1-07D	728837	Soil
10	MR04-J06-0-1-07D	728838	Soil
11	MR04-I07-0-1-07D	728839	Soil
12	MR04-I06-0-1-07D	728840	Soil
13	MR04-J05-0-1-07D	728841	Soil
14	MR04-E08-0-1-07D	729039	Soil
15	MR04-D02-0-1-07D	729040	Soil
16	MR04-D02D-0-1-07D	729041	Soil
17	MR04-D03-0-1-07D	729042	Soil
17MS	MR04-D03-0-1-07DMS	729042MS	Soil
17MSD	MR04-D03-0-1-07DMSD	729042MSD	Soil
18	MR04-D04-0-1-07D	729043	Soil
19	MR04-E09-0-1-07D	729044	Soil
20	MR04-D05-0-1-07D	729045	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
11/01/07	2,4-Dinitrophenol	31.0%	J/UJ	13-20

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
17	Phenol	91%/91%/Ok	None - ND
	2,4-Dinitrotoluene	91%/91%/Ok	None - ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
SLCSZ6	Phenol	92%	None	All ND
	2,4-Dinitrotoluene	94%	None	All ND

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
SBLKZ6	Benzaldehyde	29	145	U	1-11
	Butylbenzylphthalate	16	160	U	All samples
	bis (2-Ethylhexyl) phthalate	34	340	U	All samples

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	ND	-	-
MR04-FB101807	None	ND	ND	-	-
MR04-EB101807	None	ND	ND	-	-
MR04-EB101707	Caprolactam	5	833	U	1-5, 7, 13-15, 17-19

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-J08-0-1-07D ug/kg	MR04-J08D-0-1-07D ug/kg	RPD	Qualifier
Acetophenone	31	470 U	NC	None

Compound	MR04-D02-0-1-07D ug/kg	MR04-D02D-0-1-07D ug/kg	RPD	Qualifier
Di-n-butylphthalate	430 U	35	NC	None
Fluoranthene	24	29	19%	None
Pyrene	32	46	36%	None
Benzo (a) anthracene	21	25	17%	None
Chrysene	28	38	30%	None
Benzo (b) fluoranthene	32	51	46%	None
Benzo (k) fluoranthene	42	45	7%	None
Benzo (a) pyrene	21	28	29%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Copper	0.283 mg/kg	-	U	1, 2, 3, 6, 7, 8, 9, 10, 11, 18
Mercury	0.057	-	U	1-15
Nickel	0.980	-	U	1-8
Cadmium	0.076 mg/kg	-	U	All Samples
Antimony	0.313 mg/kg	-	U	1-6, 8, 9, 10, 12, 14-20

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB101707	None - ND	-	-	-	-
MR04-EB101807	None - ND	-	-	-	-
MR04-EB101907	Antimony	2.6	-	None	Already Qualified
	Chromium	0.22	-	None	All >CRDL
	Manganese	0.20	-	None	All >CRDL
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
17	Antimony	62%	J/UJ	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MS Sample ID	Compound	RPD	Qualifier	Affected Samples
17	Lead	23%	J/UJ	All Soil Samples

LCS - The LCS samples exhibited acceptable %R values.

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT22

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-E07-0-1-07C	729047	Soil
2	MR04-D01-0-1-07C	729048	Soil
3	MR04-EB101907	729049	Water
4	MR04-I04-0-1-07C	729050	Soil
5	MR04-I03-0-1-07C	729051	Soil
6	MR04-I01-0-1-07C	729052	Soil
7	MR04-I01D-0-1-07C	729053	Soil
8	MR04-F04-0-1-07C	729054	Soil
9	MR04-E03-0-1-07C	729055	Soil
10	MR04-F05-0-1-07C	729056	Soil
11	MR04-E04-0-1-07C	729057	Soil
12	MR04-E05-0-1-07C	729058	Soil
13	MR04-F06-0-1-07C	729059	Soil
14	MR04-F07-0-1-07C	729060	Soil
15	MR04-E06-0-1-07C	729061	Soil
16	MR04-F08-0-1-07C	729062	Soil
17	MR04-F09-0-1-07C	729063	Soil
17MS	MR04-F09-0-1-07CMS	729063MS	Soil
17MSD	MR04-F09-0-1-07CMSD	729063MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-0-1-07C ug/kg	MR04-I01D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT22

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-E07-0-1-07D	729047	Soil
2	MR04-D01-0-1-07D	729048	Soil
3	MR04-EB101907	729049	Water
4	MR04-I04-0-1-07D	729050	Soil
5	MR04-I03-0-1-07D	729051	Soil
6	MR04-I01-0-1-07D	729052	Soil
7	MR04-I01D-0-1-07D	729053	Soil
8	MR04-F04-0-1-07D	729054	Soil
9	MR04-E03-0-1-07D	729055	Soil
10	MR04-F05-0-1-07D	729056	Soil
11	MR04-E04-0-1-07D	729057	Soil
12	MR04-E05-0-1-07D	729058	Soil
13	MR04-F06-0-1-07D	729059	Soil
14	MR04-F07-0-1-07D	729060	Soil
15	MR04-E06-0-1-07D	729061	Soil
16	MR04-F08-0-1-07D	729062	Soil
17	MR04-F09-0-1-07D	729063	Soil
17MS	MR04-F09-0-1-07DMS	729063MS	Soil
17MSD	MR04-F09-0-1-07DMSD	729063MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Arsenic	1.994	-	U	6
Cadmium	0.762	-	U	3
Lead	7.509	-	U	3
Antimony	0.377 mg/kg	-	U	1, 2, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17
Selenium	0.279 mg/kg	-	U	1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB101907	Antimony	2.6	-	None	Already Qualified
	Chromium	0.22	-	None	All >CRDL
	Manganese	0.20	-	None	All >CRDL
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
17	Antimony	52%	J/UJ	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
17	Lead	26	J/UJ	All Soil Samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-0-1-07D mg/kg	MR04-I01D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	2170	2320	7%	None
Arsenic	0.80U	0.86	NC	None
Barium	10.9	11.4	4%	None
Calcium	186	203	9%	None
Cadmium	0.030	0.048	46%	None
Cobalt	0.11	0.12	9%	None
Chromium	2.5	2.6	4%	None
Copper	0.55	0.63	14%	None
Iron	1880	2040	8%	None
Magnesium	76.3	82.3	8%	None
Mercury	0.10U	0.025	NC	None
Manganese	12.4	13.5	8%	None
Sodium	7.5	9.3	21%	None
Nickel	0.62	0.71	14%	None
Lead	9.5	9.7	2%	None
Potassium	86.6	94.5	9%	None
Vanadium	5.3	5.7	7%	None
Zinc	2.0	2.2	10%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT22

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-E07-0-1-07C	729047	Soil
2	MR04-D01-0-1-07C	729048	Soil
3	MR04-EB101907	729049	Water
4	MR04-I04-0-1-07C	729050	Soil
5	MR04-I03-0-1-07C	729051	Soil
6	MR04-I01-0-1-07C	729052	Soil
7	MR04-I01D-0-1-07C	729053	Soil
8	MR04-F04-0-1-07C	729054	Soil
9	MR04-E03-0-1-07C	729055	Soil
10	MR04-F05-0-1-07C	729056	Soil
11	MR04-E04-0-1-07C	729057	Soil
12	MR04-E05-0-1-07C	729058	Soil
13	MR04-F06-0-1-07C	729059	Soil
14	MR04-F07-0-1-07C	729060	Soil
15	MR04-E06-0-1-07C	729061	Soil
16	MR04-F08-0-1-07C	729062	Soil
17	MR04-F09-0-1-07C	729063	Soil
17MS	MR04-F09-0-1-07CMS	729063MS	Soil
17MSD	MR04-F09-0-1-07CMSD	729063MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-0-1-07C ug/kg	MR04-I01D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT22

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-E07-0-1-07C	729047	Soil
2	MR04-D01-0-1-07C	729048	Soil
3	MR04-EB101907	729049	Water
4	MR04-I04-0-1-07C	729050	Soil
5	MR04-I03-0-1-07C	729051	Soil
6	MR04-I01-0-1-07C	729052	Soil
7	MR04-I01D-0-1-07C	729053	Soil
8	MR04-F04-0-1-07C	729054	Soil
9	MR04-E03-0-1-07C	729055	Soil
10	MR04-F05-0-1-07C	729056	Soil
11	MR04-E04-0-1-07C	729057	Soil
12	MR04-E05-0-1-07C	729058	Soil
13	MR04-F06-0-1-07C	729059	Soil
14	MR04-F07-0-1-07C	729060	Soil
15	MR04-E06-0-1-07C	729061	Soil
15DL	MR04-E06-0-1-07CDL	729061DL	Soil
16	MR04-F08-0-1-07C	729062	Soil
17	MR04-F09-0-1-07C	729063	Soil
17MS	MR04-F09-0-1-07CMS	729063MS	Soil
17MSD	MR04-F09-0-1-07CMSD	729063MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
1	DCB1	178%	J - All positive results
	DCB2	220%	

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-0-1-07C ug/kg	MR04-I01D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified as estimated (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT22

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-E07-0-1-07C	729047	Soil
1DL	MR04-E07-0-1-07CDL	729047DL	Soil
2	MR04-D01-0-1-07C	729048	Soil
3	MR04-EB101907	729049	Water
4	MR04-I04-0-1-07C	729050	Soil
5	MR04-I03-0-1-07C	729051	Soil
6	MR04-I01-0-1-07C	729052	Soil
7	MR04-I01D-0-1-07C	729053	Soil
8	MR04-F04-0-1-07C	729054	Soil
9	MR04-E03-0-1-07C	729055	Soil
10	MR04-F05-0-1-07C	729056	Soil
11	MR04-E04-0-1-07C	729057	Soil
12	MR04-E05-0-1-07C	729058	Soil
13	MR04-F06-0-1-07C	729059	Soil
14	MR04-F07-0-1-07C	729060	Soil
15	MR04-E06-0-1-07C	729061	Soil
16	MR04-F08-0-1-07C	729062	Soil
17	MR04-F09-0-1-07C	729063	Soil
17MS	MR04-F09-0-1-07CMS	729063MS	Soil
17MSD	MR04-F09-0-1-07CMSD	729063MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water, 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
11/04/07	Benzaldehyde	27.4%	J/UJ	1, 2, 4-15
	2,2'-Oxybis (1-chloropropane)	35.8%	J/UJ	1, 2, 4-15
	Hexachlorocyclopentadiene	29.2%	J/UJ	1, 2, 4-15
11/05/07	2,2'-Oxybis (1-chloropropane)	29.2%	J/UJ	1DL, 16, 17
	2,4-Dinitrophenol	38.1%	J/UJ	1Dl, 16, 17
	Pyrene	35.9%	J/UJ	1Dl, 16, 17

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
17	S2=Phenol-d5	114%	None for 1 out per fraction
	S6=2-Fluorobiphenyl	117%	None for 1 out per fraction

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
17	Phenol	100%	None - ND
	2,4-Dinitrotoluene	90%	None - ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
SLCSZ7	4-Chloro-3-methylphenol	101%	None	All ND
	4-Nitrophenol	101%	None	All ND
	Pentachlorophenol	104%	None	All ND

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
SBLKZ7	Butylbenzylphthalate	0.8	-	None	All ND
	bis (2-Ethylhexyl) phthalate	1	-	None	All ND

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB101907	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-I01-0-1-07C ug/kg	MR04-I01D-0-1-07C ug/kg	RPD	Qualifier
Caprolactam	350 U	100	NC	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and aldol condensates (R) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - EDS sample ID #1 exhibited a high concentration of bis (2-ethylhexyl) phthalate that exceeded the calibration range and was flagged (E) by the laboratory. The sample was diluted and reanalyzed and the reviewer replaced the original result with the dilution result on the Form I.

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT23

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 11, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102107	729239	Water
2	MR04-D10-0-1-07D	729240	Soil
3	MR04-D11-0-1-07D	729241	Soil
4	MR04-EB102007	729242	Water
5	MR04-E12-0-1-07D	729243	Soil
6	MR04-E13-0-1-07D	729244	Soil
7	MR04-EB102207	729245	Water
8	MR04-A01-0-1-07D	729246	Soil
8MS	MR04-A01-0-1-07DMS	729246MS	Soil
8MSD	MR04-A01-0-1-07DMSD	729246MSD	Soil
9	MR04-A02-0-1-07D	729247	Soil
9MS	MR04-A02-0-1-07DMS	729247MS	Soil
9MSD	MR04-A02-0-1-07DMSD	729247MSD	Soil
10	MR04-B05D-0-1-07D	729248	Soil
11	MR04-B05-0-1-07D	729249	Soil
12	MR04-A03-0-1-07D	729250	Soil
13	MR04-A03D-0-1-07D	729251	Soil
14	MR04-B06-0-1-07D	729252	Soil
15	MR04-B06D-0-1-07D	729253	Soil
16	MR04-A04-0-1-07D	729254	Soil
17	MR04-B07-0-1-07D	729255	Soil
18	MR04-A05-0-1-07D	729256	Soil
19	MR04-B08-0-1-07D	729257	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
8	4-Amino-2,6-Dinitrotoluene	85%/85%/Ok	J/UJ
9	4-Amino-2,6-Dinitrotoluene	85%/Ok/Ok	J/UJ

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102207	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-0-1-07D ug/kg	MR04-B05D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-A03-0-1-07D ug/kg	MR04-A03D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-B06-0-1-07D ug/kg	MR04-B06D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT23

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 10, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102107	729239	Water
2	MR04-D10-0-1-07D	729240	Soil
3	MR04-D11-0-1-07D	729241	Soil
4	MR04-EB102007	729242	Water
5	MR04-E12-0-1-07D	729243	Soil
6	MR04-E13-0-1-07D	729244	Soil
7	MR04-EB102207	729245	Water
8	MR04-A01-0-1-07D	729246	Soil
8MS	MR04-A01-0-1-07DMS	729246MS	Soil
8MSD	MR04-A01-0-1-07DMSD	729246MSD	Soil
9	MR04-A02-0-1-07D	729247	Soil
9MS	MR04-A02-0-1-07DMS	729247MS	Soil
9MSD	MR04-A02-0-1-07DMSD	729247MSD	Soil
10	MR04-B05D-0-1-07D	729248	Soil
11	MR04-B05-0-1-07D	729249	Soil
12	MR04-A03-0-1-07D	729250	Soil
13	MR04-A03D-0-1-07D	729251	Soil
14	MR04-B06-0-1-07D	729252	Soil
15	MR04-B06D-0-1-07D	729253	Soil
16	MR04-A04-0-1-07D	729254	Soil
17	MR04-B07-0-1-07D	729255	Soil
18	MR04-A05-0-1-07D	729256	Soil
19	MR04-B08-0-1-07D	729257	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Cadmium	0.671	-	U	All Water Samples
Chromium	0.161	-	U	All Water Samples
Manganese	0.243	-	U	All Water Samples
Lead	6.665	-	U	All Water Samples
Selenium	0.278 mg/kg	-	U	2, 3, 5, 6, 8, 10, 11, 12, 14, 15, 16, 18, 19

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB102107	Antimony	3.4	-	U	2, 3, 5, 9, 12, 17, 18, 19
	Beryllium	0.31	-	U	2, 3, 5, 6, 8-19
	Iron	29.9	-	None	All >CRDL
MR04-EB102207	None - ND	-	-	-	-
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
8	Silver	69%	J/UJ	All Soil Samples
	Antimony	71%	J/UJ	All Soil Samples
9	Silver	74%	J/UJ	All Soil Samples
	Antimony	63%	J/UJ	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
8	Iron	28	J/UJ	All Soil Samples
9	Zinc	44	J/UJ	All Soil Samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-0-1-07D mg/kg	MR04-B05D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	3630	3820	5%	None
Arsenic	1.1	1.2	9%	None
Barium	9.0	8.8	2%	None
Calcium	11200	27600	85%	None
Cadmium	0.065	0.055	17%	None
Cobalt	0.25	0.22	13%	None
Chromium	4.4	4.7	7%	None
Copper	0.92	0.95	3%	None
Iron	2030	2060	1%	None
Magnesium	309	503	48%	None
Mercury	0.015	0.024	46%	None
Manganese	17.0	18.5	8%	None
Sodium	29.5	57.9	65%	None
Nickel	1.2	1.4	15%	None
Lead	6.1	5.9	3%	None
Potassium	133	150	12%	None
Vanadium	6.2	6.2	0%	None
Zinc	5.7	5.8	2%	None

Compound	MR04-A03-0-1-07D mg/kg	MR04-A03D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	4040	4040	0%	None
Arsenic	0.96	0.97	1%	None
Barium	12.6	12.9	2%	None
Calcium	179	173	3%	None
Cadmium	0.040	0.032	22%	None
Cobalt	0.19	0.20	5%	None
Chromium	3.7	3.8	3%	None
Copper	1.6	1.8	12%	None
Iron	1850	1860	1%	None
Magnesium	159	158	1%	None
Mercury	0.041	0.027	41%	None
Manganese	22.5	23.1	3%	None
Sodium	14.2	12.2	15%	None
Nickel	1.2	1.2	0%	None
Lead	10.3	9.9	4%	None
Potassium	99.7	104	4%	None
Vanadium	6.4	6.0	6%	None
Zinc	4.4	4.6	4%	None

Compound	MR04-B06-0-1-07D mg/kg	MR04-B06D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	4920	4870	1%	None
Arsenic	1.4	1.3	7%	None
Barium	11.6	11.3	3%	None
Calcium	229	207	10%	None
Cadmium	0.042	0.051	19%	None
Cobalt	0.27	0.29	7%	None
Chromium	5.4	5.1	6%	None
Copper	1.4	1.2	15%	None
Iron	3150	2960	6%	None
Magnesium	210	204	3%	None
Mercury	0.029	0.033	13%	None
Manganese	12.9	12.9	0%	None
Sodium	16.8	14.9	12%	None
Nickel	1.2	1.2	0%	None
Lead	9.2	9.0	2%	None
Potassium	158	168	6%	None
Vanadium	9.3	8.9	4%	None
Zinc	4.9	5.1	4%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT23

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 11, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102107	729239	Water
2	MR04-D10-0-1-07D	729240	Soil
3	MR04-D11-0-1-07D	729241	Soil
4	MR04-EB102007	729242	Water
5	MR04-E12-0-1-07D	729243	Soil
6	MR04-E13-0-1-07D	729244	Soil
7	MR04-EB102207	729245	Water
8	MR04-A01-0-1-07D	729246	Soil
9	MR04-A02-0-1-07D	729247	Soil
9MS	MR04-A02-0-1-07DMS	729247MS	Soil
9MSD	MR04-A02-0-1-07DMSD	729247MSD	Soil
10	MR04-B05D-0-1-07D	729248	Soil
11	MR04-B05-0-1-07D	729249	Soil
12	MR04-A03-0-1-07D	729250	Soil
13	MR04-A03D-0-1-07D	729251	Soil
14	MR04-B06-0-1-07D	729252	Soil
15	MR04-B06D-0-1-07D	729253	Soil
16	MR04-A04-0-1-07D	729254	Soil
17	MR04-B07-0-1-07D	729255	Soil
18	MR04-A05-0-1-07D	729256	Soil
19	MR04-B08-0-1-07D	729257	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102207	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-0-1-07D ug/kg	MR04-B05D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-A03-0-1-07D ug/kg	MR04-A03D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-B06-0-1-07D	MR04-B06D-0-1-07D	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT23

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 11, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102107	729239	Water
2	MR04-D10-0-1-07D	729240	Soil
3	MR04-D11-0-1-07D	729241	Soil
3DL	MR04-D11-0-1-07DDL	729241DL	Soil
4	MR04-EB102007	729242	Water
5	MR04-E12-0-1-07D	729243	Soil
6	MR04-E13-0-1-07D	729244	Soil
7	MR04-EB102207	729245	Water
8	MR04-A01-0-1-07D	729246	Soil
8MS	MR04-A01-0-1-07DMS	729246MS	Soil
8MSD	MR04-A01-0-1-07DMSD	729246MSD	Soil
9	MR04-A02-0-1-07D	729247	Soil
9MS	MR04-A02-0-1-07DMS	729247MS	Soil
9MSD	MR04-A02-0-1-07DMSD	729247MSD	Soil
9RE	MR04-A02-0-1-07DRE	729247RE	Soil
9REMS	MR04-A02-0-1-07DREMS	729247REMS	Soil
9REMSD	MR04-A02-0-1-07DREMSD	729247REMSD	Soil
10	MR04-B05D-0-1-07D	729248	Soil
11	MR04-B05-0-1-07D	729249	Soil
12	MR04-A03-0-1-07D	729250	Soil
13	MR04-A03D-0-1-07D	729251	Soil
14	MR04-B06-0-1-07D	729252	Soil
15	MR04-B06D-0-1-07D	729253	Soil
16	MR04-A04-0-1-07D	729254	Soil
17	MR04-B07-0-1-07D	729255	Soil
18	MR04-A05-0-1-07D	729256	Soil
19	MR04-B08-0-1-07D	729257	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water, 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
7	DCB1	28%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
9	gamma-BHC	27%/Ok/67	J/UJ
	Heptachlor	29%/Ok/64	J/UJ
	Aldrin	30%/Ok/68	J/UJ
	Dieldrin	Ok/Ok/64	None for RPD alone
	Endrin	32%/Ok/64	J/UJ
	4,4'-DDT	Ok/Ok/68	None for RPD alone

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
PBLKQ7	Endrin aldehyde	2.2	11.0	U	2, 5, 6, 8, 10, 11

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102207	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-0-1-07D ug/kg	MR04-B05D-0-1-07D ug/kg	RPD	Qualifier
4,4'-DDE	11	11	0%	None
4,4'-DDT	3.2	2.8	13%	None

Compound	MR04-A03-0-1-07D ug/kg	MR04-A03D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-B06-0-1-07D ug/kg	MR04-B06D-0-1-07D ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - EDS sample ID #3 exhibited a high concentration of 4,4'-DDT and was flagged (E) by the laboratory. The sample was reanalyzed at a 20X dilution and the reviewer replaced the original result with the dilution result on the Form I.

Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT23

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 11, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-EB102107	729239	Water
2	MR04-D10-0-1-07D	729240	Soil
3	MR04-D11-0-1-07D	729241	Soil
4	MR04-EB102007	729242	Water
5	MR04-E12-0-1-07D	729243	Soil
6	MR04-E13-0-1-07D	729244	Soil
7	MR04-EB102207	729245	Water
8	MR04-A01-0-1-07D	729246	Soil
9	MR04-A02-0-1-07D	729247	Soil
9MS	MR04-A02-0-1-07DMS	729247MS	Soil
9MSD	MR04-A02-0-1-07DMSD	729247MSD	Soil
10	MR04-B05D-0-1-07D	729248	Soil
11	MR04-B05-0-1-07D	729249	Soil
12	MR04-A03-0-1-07D	729250	Soil
13	MR04-A03D-0-1-07D	729251	Soil
14	MR04-B06-0-1-07D	729252	Soil
15	MR04-B06D-0-1-07D	729253	Soil
16	MR04-A04-0-1-07D	729254	Soil
17	MR04-B07-0-1-07D	729255	Soil
18	MR04-A05-0-1-07D	729256	Soil
19	MR04-B08-0-1-07D	729257	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water, 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
11/07/07	Benzaldehyde	29.8%	J/UJ	8, 10, 11, 13
	2,2'-Oxybis (1-Chloropropane)	37.7%	J/UJ	8, 10, 11, 13
	2,4-Dinitrophenol	36.3	J/UJ	8, 10, 11, 13
11/07/07 Q	Hexachlorocyclopentadiene	31.7%	J/UJ	14-19
	Pentachlorophenol	32.8%	J/UJ	14-19
	Pyrene	28.2%	J/UJ	14-19
11/19/07	Benzaldehyde	37.0%	J/UJ	2, 3, 5, 6, 9, 12
	2,2'-Oxybis (1-Chloropropane)	41.6%	J/UJ	2, 3, 5, 6, 9, 12

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
14	S6=2-Fluorobiphenyl	124%	None for 1 out
17	S6=2-Fluorobiphenyl	140%	None for 1 out
18	S6=2-Fluorobiphenyl	134%	None for 1 out
19	S6=2-Fluorobiphenyl	146%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
8	4-Nitrophenol	121%/Ok/Ok	None - ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
STLVT	4-Chloro-3-methylphenol	101%	None	Waters ND
	4-Nitrophenol	101%	None	Waters ND
	Pentachlorophenol	104%	None	Waters ND

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
SBLKIA	bis (2-Ethylhexyl) phthalate	37	370		14-19
SBLKA1	Caprolactam	27	135	U	5, 6, 9
	Bis (2-Ethylhexyl) phthalate	36	360	U	2, 3, 5, 6, 9, 12
SBLKAA	Caprolactam	23	115	U	8, 10, 13
	Bis (2-Ethylhexyl) phthalate	25	250	U	8, 10, 11, 13
SBLKZ7	Caprolactam	1	5	U	1, 7
	Butylbenzylphthalate	0.8	8	U	1, 4, 7
	Bis (2-Ethylhexyl) phthalate	1.0	10	U	1, 4, 7

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102207	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-B05-0-1-07D ug/kg	MR04-B05D-0-1-07D ug/kg	RPD	Qualifier
Acetophenone	350 U	16	NC	None
Butylbenzylphthalate	25	33	28%	None

Compound	MR04-A03-0-1-07D ug/kg	MR04-A03D-0-1-07D ug/kg	RPD	Qualifier
Benzaldehyde	35	39	11%	None
Acetophenone	370 U	29	NC	None
Butylbenzylphthalate	28	33	16%	None

Compound	MR04-B06-0-1-07D	MR04-B06D-0-1-07D	RPD	Qualifier
Benzaldehyde	42	370 U	NC	None
Acetophenone	18	370 U	NC	None
Butylbenzylphthalate	26	23	12%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and aldol condensates (R) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Cadmium	0.671	-	U	All Water Samples
Chromium	0.161	-	U	All Water Samples
Manganese	0.243	-	U	All Water Samples
Lead	6.665	-	U	All Water Samples
Selenium	0.278 mg/kg	-	U	2, 3, 5, 6, 8, 10, 11, 12, 14, 15, 16, 18, 19

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB102107	Antimony	3.4	-	U	2, 3, 5, 9, 12, 17, 18, 19
	Beryllium	0.31	-	U	2, 3, 5, 6, 8-19
	Iron	29.9	-	None	All >CRDL
MR04-EB102207	None - ND	-	-	-	-
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
8	Silver	69%	J/UJ	All Soil Samples
	Antimony	71%	J/UJ	All Soil Samples
9	Silver	74%	J/UJ	All Soil Samples
	Antimony	63%	J/UJ	All Soil Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
8	Iron	28	J/UJ	All Soil Samples
9	Zinc	44	J/UJ	All Soil Samples

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT24

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-0-1-07D	729323	Soil
2	MR04-C02-0-1-07D	729324	Soil
3	MR04-C03-0-1-07D	729325	Soil
4	MR04-C04-0-1-07D	729326	Soil
5	MR04-D08-0-1-07D	729327	Soil
5MS	MR04-D08-0-1-07DMS	729327MS	Soil
5MSD	MR04-D08-0-1-07DMSD	729327MSD	Soil
6	MR04-D09-0-1-07D	729328	Soil
7	MR04-D06-0-1-07D	729329	Soil
8	MR04-D06D-0-1-07D	729330	Soil
9	MR04-E10-0-1-07D	729331	Soil
10	MR04-D07-0-1-07D	729332	Soil
11	MR04-E11-0-1-07D	729333	Soil
12	MR04-F10-0-1-07D	729334	Soil
13	MR04-F11-0-1-07D	729335	Soil
14	MR04-F11D-0-1-07D	729336	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
5	4-Amino-2,6-Dinitrotoluene	85%/Ok/Ok	None - Already qualified

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
BKS	4-Amino-2,6-Dinitrotoluene	85%	J/UJ	All samples

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102007	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-D06-0-1-07C ug/kg	MR04-D06D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-F11-0-1-07C ug/kg	MR04-F11D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT24

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-0-1-07D	729323	Water
2	MR04-C02-0-1-07D	729324	Soil
3	MR04-C03-0-1-07D	729325	Soil
4	MR04-C04-0-1-07D	729326	Soil
5	MR04-D08-0-1-07D	729327	Soil
5MS	MR04-D08-0-1-07DMS	729327MS	Soil
5MSD	MR04-D08-0-1-07DMSD	729327MSD	Soil
6	MR04-D09-0-1-07D	729328	Soil
7	MR04-D06-0-1-07D	729329	Soil
8	MR04-D06D-0-1-07D	729330	Soil
9	MR04-E10-0-1-07D	729331	Soil
10	MR04-D07-0-1-07D	729332	Soil
11	MR04-E11-0-1-07D	729333	Soil
12	MR04-F10-0-1-07D	729334	Soil
13	MR04-F11-0-1-07D	729335	Soil
14	MR04-F11D-0-1-07D	729336	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL with the exception of the following:

Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
Cadmium	0.039 mg/kg	-	U	1-12

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB102007	None - ND	-	-	-	-
MR04-EB102107	Antimony	3.4	-	None	All ND
	Beryllium	0.31	-	U	12, 13, 14
	Iron	29.9	-	None	All >CRDL
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values.

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-F11-0-1-07D mg/kg	MR04-F11D-0-1-07D mg/kg	RPD	Qualifier
Aluminum	3020	3140	4%	None
Arsenic	1.8	1.7	6%	None
Barium	12.2	12.1	1%	None
Calcium	84900	99800	16%	None
Cadmium	0.51	0.49	4%	None
Cobalt	0.32	0.29	10%	None
Chromium	7.9	10.5	28%	None
Copper	4.8	4.2	13%	None

Compound	MR04-F11-0-1-07D mg/kg	MR04-F11D-0-1-07D mg/kg	RPD	Qualifier
Iron	4230	2670	45%	None
Magnesium	1290	1500	15%	None
Mercury	0.018	0.11U	NC	None
Manganese	30.3	29.3	3%	None
Sodium	162	179	10%	None
Nickel	2.2	3.0	31%	None
Lead	30.6	26.0	16%	None
Potassium	190	228	18%	None
Selenium	0.48	0.38	23%	None
Vanadium	7.5	7.9	5%	None
Zinc	71.4	77.0	8%	None

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT24

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-0-1-07D	729323	Soil
2	MR04-C02-0-1-07D	729324	Soil
3	MR04-C03-0-1-07D	729325	Soil
4	MR04-C04-0-1-07D	729326	Soil
5	MR04-D08-0-1-07D	729327	Soil
5MS	MR04-D08-0-1-07DMS	729327MS	Soil
5MSD	MR04-D08-0-1-07DMSD	729327MSD	Soil
6	MR04-D09-0-1-07D	729328	Soil
7	MR04-D06-0-1-07D	729329	Soil
8	MR04-D06D-0-1-07D	729330	Soil
9	MR04-E10-0-1-07D	729331	Soil
10	MR04-D07-0-1-07D	729332	Soil
11	MR04-E11-0-1-07D	729333	Soil
12	MR04-F10-0-1-07D	729334	Soil
13	MR04-F11-0-1-07D	729335	Soil
14	MR04-F11D-0-1-07D	729336	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102007	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-D06-0-1-07C ug/kg	MR04-D06D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR04-F11-0-1-07C ug/kg	MR04-F11D-0-1-07C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT24

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-0-1-07D	729323	Soil
1DL	MR04-C01-0-1-07DDL	729323DL	Soil
2	MR04-C02-0-1-07D	729324	Soil
3	MR04-C03-0-1-07D	729325	Soil
4	MR04-C04-0-1-07D	729326	Soil
5	MR04-D08-0-1-07D	729327	Soil
5MS	MR04-D08-0-1-07DMS	729327MS	Soil
5MSD	MR04-D08-0-1-07DMSD	729327MSD	Soil
6	MR04-D09-0-1-07D	729328	Soil
7	MR04-D06-0-1-07D	729329	Soil
8	MR04-D06D-0-1-07D	729330	Soil
9	MR04-E10-0-1-07D	729331	Soil
10	MR04-D07-0-1-07D	729332	Soil
11	MR04-E11-0-1-07D	729333	Soil
11DL	MR04-E11-0-1-07DDL	729333DL	Soil
12	MR04-F10-0-1-07D	729334	Soil
12DL	MR04-F10-0-1-07DDL	729334DL	Soil
13	MR04-F11-0-1-07D	729335	Soil
14	MR04-F11D-0-1-07D	729336	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
5	4,4'-DDT	335%/Ok/119	J

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
PBLK1R	Endrin aldehyde	3.3	16.5	U	2, 9-11, 13, 14

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102007	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-D06-0-1-07C ug/kg	MR04-D06D-0-1-07C ug/kg	RPD	Qualifier
Dieldrin	6.8	4.1	50%	None
4,4'-DDE	16	9.8	48%	None
4,4'-DDT	24	10	82%	None

Compound	MR04-F11-0-1-07C ug/kg	MR04-F11D-0-1-07C ug/kg	RPD	Qualifier
Dieldrin	5.2	4.6	12%	None
4,4'-DDE	6.7	6.2	8%	None
4,4'-DDT	4.1	4.8	16%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - EDS sample IDs 1, 11, and 12 exhibited high concentrations of target compounds and were flagged (E) by the laboratory. The samples were reanalyzed at various dilutions and the reviewer replaced the original results with the dilution results for these compounds on the Form Is.

Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT24

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C01-0-1-07D	729323	Soil
2	MR04-C02-0-1-07D	729324	Soil
3	MR04-C03-0-1-07D	729325	Soil
4	MR04-C04-0-1-07D	729326	Soil
5	MR04-D08-0-1-07D	729327	Soil
5MS	MR04-D08-0-1-07DMS	729327MS	Soil
5MSD	MR04-D08-0-1-07DMSD	729327MSD	Soil
6	MR04-D09-0-1-07D	729328	Soil
7	MR04-D06-0-1-07D	729329	Soil
8	MR04-D06D-0-1-07D	729330	Soil
9	MR04-E10-0-1-07D	729331	Soil
10	MR04-D07-0-1-07D	729332	Soil
11	MR04-E11-0-1-07D	729333	Soil
12	MR04-F10-0-1-07D	729334	Soil
13	MR04-F11-0-1-07D	729335	Soil
14	MR04-F11D-0-1-07D	729336	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
11/05/07	2,2'-Oxybis (1-Chloropropane)	29.3%	J/UJ	1-11
	2,4-Dinitrophenol	38.1%	J/UJ	1-11
	Pyrene	35.9%	J/UJ	1-11
11/19/07	Benzaldehyde	37.0%	J/UJ	12-14
	2,2'-Oxybis (2-chloropropane)	41.6%	J/UJ	12-14

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
SBLKA3	Butylbenzylphthalate	18	180	U	1, 2, 6-9, 11
	bis (2-Ethylhexyl) phthalate	47	470	U	1-11
SBLK3A	bis (2-Ethylhexyl) phthalate	42	420	U	12-14

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102007	Di-n-butylphthalate	0.5	-	None	ND
MR04-FB101807	None	ND	-	-	-
MR04-EB102107	None	ND	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR04-D06-0-1-07C ug/kg	MR04-D06D-0-1-07C ug/kg	RPD	Qualifier
Caprolactam	200	480 U	NC	None

Compound	MR04-F11-0-1-07C ug/kg	MR04-F11D-0-1-07C ug/kg	RPD	Qualifier
Butylbenzylphthalate	61	69	12%	None

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and aldol condensates (R) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT25

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-0-1-07D	729354	Soil
2	MR04-B03-0-1-07D	729355	Soil
3	MR04-B02-0-1-07D	729356	Soil
4	MR04-B01-0-1-07D	729357	Soil
5	MR04-E24-0-1-07D	729358	Soil
6	MR04-G25-0-1-07D	729359	Soil
7	MR04-D13-0-1-07D	729360	Soil
8	MR04-D14-0-1-07D	729361	Soil
9	MR04-C10-0-1-07D	729362	Soil
10	MR04-C11-0-1-07D	729363	Soil
11	MR04-C12-0-1-07D	729364	Soil
12	MR04-C13-0-1-07D	729365	Soil
13	MR04-C14-0-1-07D	729366	Soil
14	MR04-C15-0-1-07D	729367	Soil
14MS	MR04-C15-0-1-07DMS	729367MS	Soil
14MSD	MR04-C15-0-1-07DMSD	729367MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
14	4-Amino-2,6-Dinitrotoluene	85%/Ok/Ok	J/UJ

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102107	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102007	None	ND	-	-	-

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

METALS & CYANIDE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT25

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-0-1-07D	729354	Water
2	MR04-B03-0-1-07D	729355	Soil
3	MR04-B02-0-1-07D	729356	Soil
4	MR04-B01-0-1-07D	729357	Soil
5	MR04-E24-0-1-07D	729358	Soil
6	MR04-G25-0-1-07D	729359	Soil
7	MR04-D13-0-1-07D	729360	Soil
8	MR04-D14-0-1-07D	729361	Soil
9	MR04-C10-0-1-07D	729362	Soil
10	MR04-C11-0-1-07D	729363	Soil
11	MR04-C12-0-1-07D	729364	Soil
12	MR04-C13-0-1-07D	729365	Soil
13	MR04-C14-0-1-07D	729366	Soil
14	MR04-C15-0-1-07D	729367	Soil
14MS	MR04-C15-0-1-07DMS	729367MS	Soil
14MSD	MR04-C15-0-1-07DMSD	729367MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

Calibration - The ICV and CCV %R values were acceptable.

CRDL Standard - The CRDL standards exhibited acceptable %R values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks exhibited contamination for several compounds, however, all sample results are non-detect or greater than the CRDL.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR04-EB102107	Antimony	3.4	-	U	1, 4, 6, 7, 10
	Beryllium	0.31	-	U	All Samples
	Iron	29.9	-	None	All >CRDL
MR04-FB101807	Chromium	0.33	-	None	All >CRDL

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
14	Silver	63%	J/UJ	All Samples
	Antimony	50%	J/UJ	All Samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate samples were not analyzed.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT25

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-0-1-07D	729354	Soil
2	MR04-B03-0-1-07D	729355	Soil
3	MR04-B02-0-1-07D	729356	Soil
4	MR04-B01-0-1-07D	729357	Soil
5	MR04-E24-0-1-07D	729358	Soil
6	MR04-G25-0-1-07D	729359	Soil
7	MR04-D13-0-1-07D	729360	Soil
8	MR04-D14-0-1-07D	729361	Soil
9	MR04-C10-0-1-07D	729362	Soil
10	MR04-C11-0-1-07D	729363	Soil
11	MR04-C12-0-1-07D	729364	Soil
12	MR04-C13-0-1-07D	729365	Soil
13	MR04-C14-0-1-07D	729366	Soil
14	MR04-C15-0-1-07D	729367	Soil
14MS	MR04-C15-0-1-07DMS	729367MS	Soil
14MSD	MR04-C15-0-1-07DMSD	729367MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were prepared and analyzed within 28 days for perchlorate.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Method and Calibration Blanks - The method blanks and continuing calibration blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102107	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102007	None	ND	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - The internal standard met response and retention time (RT) criteria.

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Quantitation - No discrepancies were identified.

ENVIRONMENTAL
Data Services, Inc.

PESTICIDES/PCBs
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT25

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-0-1-07D	729354	Soil
2	MR04-B03-0-1-07D	729355	Soil
3	MR04-B02-0-1-07D	729356	Soil
4	MR04-B01-0-1-07D	729357	Soil
4DL	MR04-B01-0-1-07DDL	729357DL	Soil
5	MR04-E24-0-1-07D	729358	Soil
5DL	MR04-E24-0-1-07DDL	729358DL	Soil
6	MR04-G25-0-1-07D	729359	Soil
6DL	MR04-G25-0-1-07DDL	729359DL	Soil
7	MR04-D13-0-1-07D	729360	Soil
8	MR04-D14-0-1-07D	729361	Soil
8DL	MR04-D14-0-1-07DDL	729361DL	Soil
9	MR04-C10-0-1-07D	729362	Soil
9DL	MR04-C10-0-1-07DDL	729362DL	Soil
10	MR04-C11-0-1-07D	729363	Soil
10DL	MR04-C11-0-1-07DDL	729363DL	Soil
11	MR04-C12-0-1-07D	729364	Soil
12	MR04-C13-0-1-07D	729365	Soil
13	MR04-C14-0-1-07D	729366	Soil
14	MR04-C15-0-1-07D	729367	Soil
14MS	MR04-C15-0-1-07DMS	729367MS	Soil
14MSD	MR04-C15-0-1-07DMSD	729367MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Instrument performance - All 4,4'-DDT/endrin % breakdown, resolution check mixture and PEMs were within criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier
14	Dieldrin	Ok/Ok/55	None for RPD alone
	4,4'-DDT	Ok/Ok/52	None for RPD

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
PBLKR3	Endrin aldehyde	2.4	12.0	U	3-5, 5DL, 10

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102107	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102007	None	ND	-	-	-

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited high concentrations of target compounds and were flagged (E) by the laboratory. The samples were reanalyzed at various dilutions and the reviewer replaced the original results with the dilution results on the Form Is.

Several samples exhibited several compounds with high %D values between columns. These compounds were flagged (P) by the laboratory and further qualified (J) by the reviewer.

Pesticide Cleanup Checks - All cleanup criteria were met.

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Knox Park, CTO-191 SDG #: CLVT25

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: December 12, 2007

Laboratory: Test America, Inc., Burlington, Vermont Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR04-C08-0-1-07D	729354	Soil
2	MR04-B03-0-1-07D	729355	Soil
3	MR04-B02-0-1-07D	729356	Soil
4	MR04-B01-0-1-07D	729357	Soil
5	MR04-E24-0-1-07D	729358	Soil
6	MR04-G25-0-1-07D	729359	Soil
7	MR04-D13-0-1-07D	729360	Soil
8	MR04-D14-0-1-07D	729361	Soil
9	MR04-C10-0-1-07D	729362	Soil
10	MR04-C11-0-1-07D	729363	Soil
11	MR04-C12-0-1-07D	729364	Soil
12	MR04-C13-0-1-07D	729365	Soil
13	MR04-C14-0-1-07D	729366	Soil
14	MR04-C15-0-1-07D	729367	Soil
14MS	MR04-C15-0-1-07DMS	729367MS	Soil
14MSD	MR04-C15-0-1-07DMSD	729367MSD	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgment were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days for all samples.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and mean RRF values.

Continuing Calibration - The continuing calibrations exhibited acceptable %D and RRF values except the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
11/07/07	Hexachlorocyclopentadiene	31.7%	J/UJ	10
	Pentachlorophenol	32.8%	J/UJ	10
	Pyrene	28.2%	J/UJ	10

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
6	S6= 2-Fluorobiphenyl	121%	None for 1 out
7	S6= 2-Fluorobiphenyl	121%	None for 1 out
8	S6= 2-Fluorobiphenyl	127%	None for 1 out
10	S6= 2-Fluorobiphenyl	130%	None for 1 out
11	S6= 2-Fluorobiphenyl	129%	None for 1 out
12	S8=Terphenyl-d14	143%	None for 1 out

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
SBLKAS	bis (2-Ethylhexyl) phthalate	42	420	U	1-7, 9-11, 13, 14

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR04-EB102107	None	ND	-	-	-
MR04-FB101807	None	ND	-	-	-
MR04-EB102007	Di-n-butyl phthalate	0.5	-	None	All ND

Field Duplicates - Field duplicate samples were not included in this data package.

Tentatively Identified Compounds (TICs) - All "unknown" TICs were qualified as estimated (J), all "known" TICs were qualified (NJ) and all TICs affected by blank contamination were rejected (R).

Compound Quantitation - No discrepancies were identified.

Appendix H
Supporting Information for the Human Health Risk Assessment

Appendix H-1, Table H-1
Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit A01 Arsenic	**Decision Unit A02** Arsenic	**Decision Unit A03** Arsenic	**Decision Unit A04** Arsenic	**Decision Unit B01** Dieldrin Arsenic
Decision Unit B02 Arsenic	**Decision Unit B03** Arsenic Iron Vanadium	**Decision Unit B05** Arsenic	**Decision Unit B06** Arsenic Vanadium	**Decision Unit B07** Arsenic
Decision Unit B08 Arsenic	**Decision Unit C01** Arsenic	**Decision Unit C02** Arsenic	**Decision Unit C03** Arsenic	**Decision Unit C04** Arsenic
Decision Unit C05 Benzo(a)pyrene Arsenic	**Decision Unit C06** Arsenic	**Decision Unit C07** Arsenic	**Decision Unit C08** Arsenic	**Decision Unit C10** Dieldrin Arsenic Iron Vanadium
Decision Unit C11 Arsenic Iron Vanadium	**Decision Unit C12** Arsenic Iron Vanadium	**Decision Unit C13** Arsenic Iron Vanadium	**Decision Unit C14** Arsenic Iron	**Decision Unit C15** Dieldrin Arsenic Iron Vanadium
Decision Unit D01 Arsenic Iron Vanadium	**Decision Unit D02** Arsenic Iron	**Decision Unit D03** Arsenic Iron Vanadium	**Decision Unit D04** Arsenic	**Decision Unit D05** Arsenic
Decision Unit D06 Arsenic	**Decision Unit D07** Arsenic	**Decision Unit D08** Arsenic	**Decision Unit D09** Arsenic	**Decision Unit D10** Aluminum Arsenic Iron Vanadium
Decision Unit D11 Arsenic	**Decision Unit D12** Arsenic Iron Vanadium	**Decision Unit D13** Arsenic	**Decision Unit D14** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit D15** Arsenic Iron Vanadium
Decision Unit D16 Arsenic Iron Vanadium	**Decision Unit D17** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic Iron Vanadium	**Decision Unit D18** Benzo(a)pyrene Arsenic	**Decision Unit D19** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E01** Dieldrin Arsenic Iron Vanadium
Decision Unit E02 Arsenic Iron	**Decision Unit E03** Arsenic	**Decision Unit E04** Arsenic Iron Vanadium	**Decision Unit E05** Arsenic Iron Vanadium	**Decision Unit E06** Arsenic

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit E07 Arsenic	**Decision Unit E08** Arsenic	**Decision Unit E09** Arsenic	**Decision Unit E10** Arsenic Vanadium	**Decision Unit E11** Arsenic
Decision Unit E12 Arsenic Iron Vanadium	**Decision Unit E13** Arsenic	**Decision Unit E14** Arsenic	**Decision Unit E15** Arsenic	**Decision Unit E16** Arsenic
Decision Unit E17 Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Arsenic	**Decision Unit E18** Benzo(a)pyrene Arsenic Vanadium	**Decision Unit E19** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E20** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E21** Arsenic
Decision Unit E22 Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E23** Benzo(a)pyrene Arsenic	**Decision Unit E24** Arsenic	**Decision Unit F01** Dieldrin Arsenic Iron Vanadium	**Decision Unit F02** Arsenic Iron
Decision Unit F03 Arsenic Vanadium	**Decision Unit F04** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F05** Arsenic Iron Vanadium	**Decision Unit F06** Arsenic Iron Vanadium	**Decision Unit F07** Arsenic Iron
Decision Unit F08 Arsenic	**Decision Unit F09** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F10** Arsenic	**Decision Unit F11** Arsenic Iron	**Decision Unit F12** Arsenic Iron
Decision Unit F13 Arsenic	**Decision Unit F14** Arsenic Iron Vanadium	**Decision Unit F15** Arsenic Iron Vanadium	**Decision Unit F16** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic	**Decision Unit F17** Benzo(a)pyrene Arsenic
Decision Unit F18 Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F19** Arsenic	**Decision Unit F20** Arsenic	**Decision Unit F21** Benzo(a)pyrene Arsenic	**Decision Unit F22** Arsenic
Decision Unit F23 Arsenic Iron	**Decision Unit F24** Arsenic	**Decision Unit F25** Arsenic	**Decision Unit G01** Arsenic	**Decision Unit G02** Arsenic Iron
Decision Unit G04 Arsenic Iron Vanadium	**Decision Unit G05** Arsenic Iron Vanadium	**Decision Unit G06** Arsenic Iron Vanadium	**Decision Unit G08** Benzo(a)pyrene Arsenic	**Decision Unit G09** Arsenic
Decision Unit G10 Arsenic	**Decision Unit G11** Arsenic	**Decision Unit G12** Arsenic	**Decision Unit G13** Arsenic	**Decision Unit G14** Benzo(a)pyrene Arsenic Iron Vanadium

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit G15 Benzo(a)pyrene Arsenic	**Decision Unit G16** Benzo(a)anthracene Benzo(a)pyrene Dibenz(a,h)anthracene Arsenic	**Decision Unit G17** Arsenic Iron	**Decision Unit G18** Benzo(a)pyrene Arsenic Iron	**Decision Unit G19** Benzo(a)pyrene Arsenic Vanadium
Decision Unit G20 Benzo(a)pyrene Arsenic	**Decision Unit G21** Aluminum Arsenic Iron Vanadium	**Decision Unit G22** Arsenic	**Decision Unit G23** Benzo(a)pyrene Benzo(b)fluoranthene Arsenic Iron Vanadium	**Decision Unit G24** Arsenic
Decision Unit G25 Arsenic	**Decision Unit H01** Arsenic	**Decision Unit H02** Dieldrin Arsenic	**Decision Unit H05** Arsenic	**Decision Unit H06** Arsenic
Decision Unit H07 Dieldrin Arsenic	**Decision Unit H08** Arsenic	**Decision Unit H09** Arsenic	**Decision Unit H10** Arsenic	**Decision Unit H11** Arsenic
Decision Unit H07 Dieldrin Arsenic	**Decision Unit H08** Arsenic	**Decision Unit H09** Arsenic	**Decision Unit H10** Arsenic	**Decision Unit H11** Arsenic
Decision Unit H12 Benzo(a)pyrene Arsenic	**Decision Unit H13** Arsenic Vanadium	**Decision Unit H14** Arsenic	**Decision Unit H15** Benzo(a)pyrene Arsenic	**Decision Unit H16** Benzo(a)pyrene Arsenic
Decision Unit H17 Benzo(a)pyrene Dibenz(a,h)anthracene Arsenic	**Decision Unit H18** Arsenic	**Decision Unit H19** Arsenic Iron	**Decision Unit H20** Arsenic Iron Vanadium	**Decision Unit H21** Benzo(a)pyrene Arsenic Iron Vanadium
Decision Unit H22 Arsenic Iron Vanadium	**Decision Unit H23** Arsenic Iron Vanadium	**Decision Unit I01** Arsenic	**Decision Unit I02** Arsenic	**Decision Unit I03** Arsenic
Decision Unit I04 Arsenic	**Decision Unit I06** Arsenic Iron Vanadium	**Decision Unit I07** Arsenic Vanadium	**Decision Unit I08** Arsenic	**Decision Unit I10** Benzo(a)pyrene Arsenic Vanadium
Decision Unit I11 Arsenic Iron	**Decision Unit I12** Benzo(a)pyrene Arsenic Vanadium	**Decision Unit I13** Arsenic	**Decision Unit I14** Arsenic Vanadium	**Decision Unit I15** Arsenic
Decision Unit I16 Benzo(a)pyrene Arsenic	**Decision Unit I17** Arsenic	**Decision Unit I18** Arsenic Iron Vanadium	**Decision Unit I19** Arsenic Iron Vanadium	**Decision Unit I20** Arsenic Iron Vanadium
Decision Unit I21 Arsenic Vanadium	**Decision Unit J01** Arsenic	**Decision Unit J02** Arsenic	**Decision Unit J03** Arsenic	**Decision Unit J04** Arsenic

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit J05 Arsenic Iron	**Decision Unit J07** Arsenic	**Decision Unit J10** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit J11** Arsenic Iron	**Decision Unit J12** Arsenic Iron
Decision Unit J13 Benzo(a)pyrene Arsenic	**Decision Unit J14** Benzo(a)pyrene Arsenic	**Decision Unit J15** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit J16** Arsenic	**Decision Unit J17** Dieldrin Arsenic Iron
Decision Unit J18 Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic Vanadium	**Decision Unit J19** Arsenic Iron Vanadium	**Decision Unit J20** Arsenic Iron Vanadium	**Decision Unit K01** Arsenic Iron Vanadium	**Decision Unit K02** Arsenic
Decision Unit K03 Arsenic	**Decision Unit K04** Arsenic Iron Vanadium	**Decision Unit K05** Arsenic Iron Vanadium	**Decision Unit K06** Arsenic Iron Vanadium	**Decision Unit K07** Arsenic
Decision Unit K08 Arsenic Iron Vanadium	**Decision Unit K09** Arsenic	**Decision Unit K10** Arsenic	**Decision Unit K11** Arsenic Iron Vanadium	**Decision Unit K12** Arsenic Vanadium
Decision Unit K13 Arsenic Iron Vanadium	**Decision Unit K14** Arsenic Iron Vanadium	**Decision Unit K15** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Arsenic Iron Vanadium	**Decision Unit K16** Arsenic Iron Vanadium	**Decision Unit K17** Arsenic
Decision Unit K18 Arsenic Iron Vanadium	**Decision Unit K19** Dieldrin Aluminum Arsenic Iron Vanadium	**Decision Unit K20** Dieldrin Arsenic Iron	**Decision Unit L01** Arsenic	**Decision Unit L02** Arsenic
Decision Unit L03 Arsenic	**Decision Unit L04** Arsenic	**Decision Unit L05** Arsenic Vanadium	**Decision Unit L06** Arsenic Iron Vanadium	**Decision Unit L07** Arsenic
Decision Unit L08 Arsenic Iron Vanadium	**Decision Unit L09** Arsenic Iron Vanadium	**Decision Unit L10** Arsenic	**Decision Unit L11** Benzo(a)pyrene Arsenic	**Decision Unit L12** Arsenic Iron Vanadium
Decision Unit L13 Arsenic Iron Vanadium	**Decision Unit L14** Arsenic Iron Vanadium	**Decision Unit L16** Arsenic Iron Vanadium	**Decision Unit L17** Arsenic Iron	**Decision Unit L18** Arsenic Iron Vanadium

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit L19 Arsenic	**Decision Unit M01** Arsenic Iron Vanadium	**Decision Unit M02** Arsenic	**Decision Unit M03** Arsenic	**Decision Unit M04** Arsenic
Decision Unit M05 Arsenic Iron Vanadium	**Decision Unit M06** Arsenic	**Decision Unit M07** Arsenic	**Decision Unit M08** Arsenic	**Decision Unit M09** Arsenic Iron
Decision Unit M10 Arsenic Iron	**Decision Unit M11** Arsenic	**Decision Unit M12** Arsenic	**Decision Unit M13** Aluminum Arsenic Iron Vanadium	**Decision Unit M14** Aluminum Arsenic Iron Vanadium
Decision Unit M15 Arsenic	**Decision Unit M16** Arsenic	**Decision Unit M17** Arsenic	**Decision Unit M18** Arsenic	**Decision Unit M19** Arsenic
Decision Unit N01 Arsenic	**Decision Unit N02** Arsenic	**Decision Unit N03** Arsenic	**Decision Unit N04** Arsenic	**Decision Unit N05** Arsenic
Decision Unit N06 Arsenic	**Decision Unit N07** Arsenic	**Decision Unit N08** Arsenic	**Decision Unit N09** Arsenic	**Decision Unit N10** Aluminum Arsenic Iron Vanadium
Decision Unit N11 Aluminum Arsenic Iron Vanadium	**Decision Unit N12** Arsenic Iron Vanadium	**Decision Unit N13** Arsenic	**Decision Unit N14** Arsenic	**Decision Unit N15** Arsenic
Decision Unit N16 Arsenic Iron	**Decision Unit O01** Arsenic	**Decision Unit O02** Arsenic	**Decision Unit O03** Arsenic	**Decision Unit O04** Arsenic Iron Vanadium
Decision Unit O05 Arsenic	**Decision Unit O06** Arsenic	**Decision Unit O08** Arsenic	**Decision Unit O09** Arsenic	**Decision Unit P01** Arsenic
Decision Unit P02 Arsenic	**Decision Unit P03** Arsenic	**Decision Unit P04** Arsenic		

Appendix H-1
Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit A01 Arsenic	**Decision Unit A02** Arsenic	**Decision Unit A03** Arsenic	**Decision Unit A04** Arsenic	**Decision Unit B01** Dieldrin Arsenic
Decision Unit B02 Arsenic	**Decision Unit B03** Arsenic Iron Vanadium	**Decision Unit B05** Arsenic	**Decision Unit B06** Arsenic Vanadium	**Decision Unit B07** Arsenic
Decision Unit B08 Arsenic	**Decision Unit C01** Arsenic	**Decision Unit C02** Arsenic	**Decision Unit C03** Arsenic	**Decision Unit C04** Arsenic
Decision Unit C05 Benzo(a)pyrene Arsenic	**Decision Unit C06** Arsenic	**Decision Unit C07** Arsenic	**Decision Unit C08** Arsenic	**Decision Unit C10** Dieldrin Arsenic Iron Vanadium
Decision Unit C11 Arsenic Iron Vanadium	**Decision Unit C12** Arsenic Iron Vanadium	**Decision Unit C13** Arsenic Iron Vanadium	**Decision Unit C14** Arsenic Iron	**Decision Unit C15** Dieldrin Arsenic Iron Vanadium
Decision Unit D01 Arsenic Iron Vanadium	**Decision Unit D02** Arsenic Iron	**Decision Unit D03** Arsenic Iron Vanadium	**Decision Unit D04** Arsenic	**Decision Unit D05** Arsenic
Decision Unit D06 Arsenic	**Decision Unit D07** Arsenic	**Decision Unit D08** Arsenic	**Decision Unit D09** Arsenic	**Decision Unit D10** Aluminum Arsenic Iron Vanadium
Decision Unit D11 Arsenic	**Decision Unit D12** Arsenic Iron Vanadium	**Decision Unit D13** Arsenic	**Decision Unit D14** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit D15** Arsenic Iron Vanadium
Decision Unit D16 Arsenic Iron Vanadium	**Decision Unit D17** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic Iron Vanadium	**Decision Unit D18** Benzo(a)pyrene Arsenic	**Decision Unit D19** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E01** Dieldrin Arsenic Iron Vanadium
Decision Unit E02 Arsenic Iron	**Decision Unit E03** Arsenic	**Decision Unit E04** Arsenic Iron Vanadium	**Decision Unit E05** Arsenic Iron Vanadium	**Decision Unit E06** Arsenic
Decision Unit E07 Arsenic	**Decision Unit E08** Arsenic	**Decision Unit E09** Arsenic	**Decision Unit E10** Arsenic Vanadium	**Decision Unit E11** Arsenic

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit E12 Arsenic Iron Vanadium	**Decision Unit E13** Arsenic	**Decision Unit E14** Arsenic	**Decision Unit E15** Arsenic	**Decision Unit E16** Arsenic
Decision Unit E17 Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Arsenic	**Decision Unit E18** Benzo(a)pyrene Arsenic Vanadium	**Decision Unit E19** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E20** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E21** Arsenic
Decision Unit E22 Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit E23** Benzo(a)pyrene Arsenic	**Decision Unit E24** Arsenic	**Decision Unit F01** Dieldrin Arsenic Iron Vanadium	**Decision Unit F02** Arsenic Iron
Decision Unit F03 Arsenic Vanadium	**Decision Unit F04** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F05** Arsenic Iron Vanadium	**Decision Unit F06** Arsenic Iron Vanadium	**Decision Unit F07** Arsenic Iron
Decision Unit F08 Arsenic	**Decision Unit F09** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F10** Arsenic	**Decision Unit F11** Arsenic Iron	**Decision Unit F12** Arsenic Iron
Decision Unit F13 Arsenic	**Decision Unit F14** Arsenic Iron Vanadium	**Decision Unit F15** Arsenic Iron Vanadium	**Decision Unit F16** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic	**Decision Unit F17** Benzo(a)pyrene Arsenic
Decision Unit F18 Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit F19** Arsenic	**Decision Unit F20** Arsenic	**Decision Unit F21** Benzo(a)pyrene Arsenic	**Decision Unit F22** Arsenic
Decision Unit F23 Arsenic Iron	**Decision Unit F24** Arsenic	**Decision Unit F25** Arsenic	**Decision Unit G01** Arsenic	**Decision Unit G02** Arsenic Iron
Decision Unit G04 Arsenic Iron Vanadium	**Decision Unit G05** Arsenic Iron Vanadium	**Decision Unit G06** Arsenic Iron Vanadium	**Decision Unit G08** Benzo(a)pyrene Arsenic	**Decision Unit G09** Arsenic
Decision Unit G10 Arsenic	**Decision Unit G11** Arsenic	**Decision Unit G12** Arsenic	**Decision Unit G13** Arsenic	**Decision Unit G14** Benzo(a)pyrene Arsenic Iron Vanadium

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit G15 Benzo(a)pyrene Arsenic	**Decision Unit G16** Benzo(a)anthracene Benzo(a)pyrene Dibenz(a,h)anthracene Arsenic	**Decision Unit G17** Arsenic Iron	**Decision Unit G18** Benzo(a)pyrene Arsenic Iron	**Decision Unit G19** Benzo(a)pyrene Arsenic Vanadium
Decision Unit G20 Benzo(a)pyrene Arsenic	**Decision Unit G21** Aluminum Arsenic Iron Vanadium	**Decision Unit G22** Arsenic	**Decision Unit G23** Benzo(a)pyrene Benzo(b)fluoranthene Arsenic Iron Vanadium	**Decision Unit G24** Arsenic
Decision Unit G25 Arsenic	**Decision Unit H01** Arsenic	**Decision Unit H02** Dieldrin Arsenic	**Decision Unit H05** Arsenic	**Decision Unit H06** Arsenic
Decision Unit H07 Dieldrin Arsenic	**Decision Unit H08** Arsenic	**Decision Unit H09** Arsenic	**Decision Unit H10** Arsenic	**Decision Unit H11** Arsenic
Decision Unit H07 Dieldrin Arsenic	**Decision Unit H08** Arsenic	**Decision Unit H09** Arsenic	**Decision Unit H10** Arsenic	**Decision Unit H11** Arsenic
Decision Unit H12 Benzo(a)pyrene Arsenic	**Decision Unit H13** Arsenic Vanadium	**Decision Unit H14** Arsenic	**Decision Unit H15** Benzo(a)pyrene Arsenic	**Decision Unit H16** Benzo(a)pyrene Arsenic
Decision Unit H17 Benzo(a)pyrene Dibenz(a,h)anthracene Arsenic	**Decision Unit H18** Arsenic	**Decision Unit H19** Arsenic Iron	**Decision Unit H20** Arsenic Iron Vanadium	**Decision Unit H21** Benzo(a)pyrene Arsenic Iron Vanadium
Decision Unit H22 Arsenic Iron Vanadium	**Decision Unit H23** Arsenic Iron Vanadium	**Decision Unit I01** Arsenic	**Decision Unit I02** Arsenic	**Decision Unit I03** Arsenic
Decision Unit I04 Arsenic	**Decision Unit I06** Arsenic Iron Vanadium	**Decision Unit I07** Arsenic Vanadium	**Decision Unit I08** Arsenic	**Decision Unit I10** Benzo(a)pyrene Arsenic Vanadium
Decision Unit I11 Arsenic Iron	**Decision Unit I12** Benzo(a)pyrene Arsenic Vanadium	**Decision Unit I13** Arsenic	**Decision Unit I14** Arsenic Vanadium	**Decision Unit I15** Arsenic
Decision Unit I16 Benzo(a)pyrene Arsenic	**Decision Unit I17** Arsenic	**Decision Unit I18** Arsenic Iron Vanadium	**Decision Unit I19** Arsenic Iron Vanadium	**Decision Unit I20** Arsenic Iron Vanadium
Decision Unit I21 Arsenic Vanadium	**Decision Unit J01** Arsenic	**Decision Unit J02** Arsenic	**Decision Unit J03** Arsenic	**Decision Unit J04** Arsenic

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Decision Unit J05 Arsenic Iron	**Decision Unit J07** Arsenic	**Decision Unit J10** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit J11** Arsenic Iron	**Decision Unit J12** Arsenic Iron
Decision Unit J13 Benzo(a)pyrene Arsenic	**Decision Unit J14** Benzo(a)pyrene Arsenic	**Decision Unit J15** Benzo(a)pyrene Arsenic Iron Vanadium	**Decision Unit J16** Arsenic	**Decision Unit J17** Dieldrin Arsenic Iron
Decision Unit J18 Benzo(a)pyrene Benzo(b)fluoranthene Dibenz(a,h)anthracene Arsenic Vanadium	**Decision Unit J19** Arsenic Iron Vanadium	**Decision Unit J20** Arsenic Iron Vanadium	**Decision Unit K01** Arsenic Iron Vanadium	**Decision Unit K02** Arsenic
Decision Unit K03 Arsenic	**Decision Unit K04** Arsenic Iron Vanadium	**Decision Unit K05** Arsenic Iron Vanadium	**Decision Unit K06** Arsenic Iron Vanadium	**Decision Unit K07** Arsenic
Decision Unit K08 Arsenic Iron Vanadium	**Decision Unit K09** Arsenic	**Decision Unit K10** Arsenic	**Decision Unit K11** Arsenic Iron Vanadium	**Decision Unit K12** Arsenic Vanadium
Decision Unit K13 Arsenic Iron Vanadium	**Decision Unit K14** Arsenic Iron Vanadium	**Decision Unit K15** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Arsenic Iron Vanadium	**Decision Unit K16** Arsenic Iron Vanadium	**Decision Unit K17** Arsenic
Decision Unit K18 Arsenic Iron Vanadium	**Decision Unit K19** Dieldrin Aluminum Arsenic Iron Vanadium	**Decision Unit K20** Dieldrin Arsenic Iron	**Decision Unit L01** Arsenic	**Decision Unit L02** Arsenic
Decision Unit L03 Arsenic	**Decision Unit L04** Arsenic	**Decision Unit L05** Arsenic Vanadium	**Decision Unit L06** Arsenic Iron Vanadium	**Decision Unit L07** Arsenic
Decision Unit L08 Arsenic Iron Vanadium	**Decision Unit L09** Arsenic Iron Vanadium	**Decision Unit L10** Arsenic	**Decision Unit L11** Benzo(a)pyrene Arsenic	**Decision Unit L12** Arsenic Iron Vanadium
Decision Unit L13 Arsenic Iron Vanadium	**Decision Unit L14** Arsenic Iron Vanadium	**Decision Unit L16** Arsenic Iron Vanadium	**Decision Unit L17** Arsenic Iron	**Decision Unit L18** Arsenic Iron Vanadium
Decision Unit L19	**Decision Unit M01**	**Decision Unit M02**	**Decision Unit M03**	**Decision Unit M04**

Summary of COPCs for Phase 1, Step 1, Surface Soil Risk Evaluation
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Arsenic	Arsenic Iron Vanadium	Arsenic	Arsenic	Arsenic
Decision Unit M05 Arsenic Iron Vanadium	**Decision Unit M06** Arsenic	**Decision Unit M07** Arsenic	**Decision Unit M08** Arsenic	**Decision Unit M09** Arsenic Iron
Decision Unit M10 Arsenic Iron	**Decision Unit M11** Arsenic	**Decision Unit M12** Arsenic	**Decision Unit M13** Aluminum Arsenic Iron Vanadium	**Decision Unit M14** Aluminum Arsenic Iron Vanadium
Decision Unit M15 Arsenic	**Decision Unit M16** Arsenic	**Decision Unit M17** Arsenic	**Decision Unit M18** Arsenic	**Decision Unit M19** Arsenic
Decision Unit N01 Arsenic	**Decision Unit N02** Arsenic	**Decision Unit N03** Arsenic	**Decision Unit N04** Arsenic	**Decision Unit N05** Arsenic
Decision Unit N06 Arsenic	**Decision Unit N07** Arsenic	**Decision Unit N08** Arsenic	**Decision Unit N09** Arsenic	**Decision Unit N10** Aluminum Arsenic Iron Vanadium
Decision Unit N11 Aluminum Arsenic Iron Vanadium	**Decision Unit N12** Arsenic Iron Vanadium	**Decision Unit N13** Arsenic	**Decision Unit N14** Arsenic	**Decision Unit N15** Arsenic
Decision Unit N16 Arsenic Iron	**Decision Unit O01** Arsenic	**Decision Unit O02** Arsenic	**Decision Unit O03** Arsenic	**Decision Unit O04** Arsenic Iron Vanadium
Decision Unit O05 Arsenic	**Decision Unit O06** Arsenic	**Decision Unit O08** Arsenic	**Decision Unit O09** Arsenic	**Decision Unit P01** Arsenic
Decision Unit P02 Arsenic	**Decision Unit P03** Arsenic	**Decision Unit P04** Arsenic		

Decision Unit AO1

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-A01-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit AO2

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-A02-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit AO3

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.97	MR04-A03D-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit AO4

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.65 J	MR04-A04-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit B01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.039	MR04-B01-0-1-07D	3.0E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	0.85 J	MR04-B01-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit B02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-B02-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit B03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ	
Metals (mg/kg)								#REF!
Arsenic	1.7	MR04-B03-0-1-07D	3.9E-01	1E-06		4E-06		#REF!
Iron	3680	MR04-B03-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver	#REF!
Vanadium	9.8	MR04-B03-0-1-07D	7.8E+01	1	0.1		Kidney	#REF!
Cumulative Corresponding Hazard Index[c]					**0.3**			
Cumulative Corresponding Cancer Risk[d]						**4E-06**		

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit B05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-B05D-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit B06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-B06-0-1-07D	3.9E-01	1E-06		4E-06	
Vanadium	9.3	MR04-B06-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit B07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.94	MR04-B07-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit B08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.72	MR04-B08-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit C01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-C01-0-1-07D	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-C02-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

Decision Unit C03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-C03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

Decision Unit C04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-C04-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.1	MR04-C05-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	1.3	MR04-C05-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit C06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.96	MR04-C06-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-C07-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-C08-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.089	MR04-C10-0-1-07D	3.0E-02	1E-06		3E-06	
Metals (mg/kg)							
Arsenic	2.7 J	MR04-C10-0-1-07D	3.9E-01	1E-06		7E-06	
Iron	9470	MR04-C10-0-1-07D	2.3E+04	1	0.4		Blood, Gastrointestinal, Liver
Vanadium	18.4	MR04-C10-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.6**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

Total Blood HI =	0.4
Total Gastrointestinal HI =	0.4
Total Liver HI =	0.4
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit C11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	3.0	MR04-C11-0-1-07D	3.9E-01	1E-06		8E-06	
Iron	7080	MR04-C11-0-1-07D	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	19.3	MR04-C11-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.6**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-C12-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	3570	MR04-C12-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.1	MR04-C12-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.1	MR04-C13-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	4050	MR04-C13-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.9	MR04-C13-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-C14-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	3300	MR04-C14-0-1-07D	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit C15

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.033	MR04-C15-0-1-07D	3.0E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	2.6	MR04-C15-0-1-07D	3.9E-01	1E-06		7E-06	
Iron	3390	MR04-C15-0-1-07D	2.3E+04	1E+00	0.1		Blood, Gastrointestinal, Liver
Vanadium	11.1	MR04-C15-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit D01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-D01-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	4020	MR04-D01-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.2	MR04-D01-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-D02D-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3480	MR04-D02-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.8 J	MR04-D03-0-1-07D	3.9E-01	1E-06		2E-06	
Iron	3610	MR04-D03-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.4	MR04-D03-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.72 J	MR04-D04-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.71 J	MR04-D05-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-D06-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-D07-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-D08-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-D09-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D10

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Aluminum	8660		MR04-D10-0-1-07D	7.6E+04	1	0.1		Neurological
Arsenic	2.3		MR04-D10-0-1-07D	3.9E-01	1E-06		6E-06	
Iron	5410	J	MR04-D10-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	13		MR04-D10-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0.5**		
Cumulative Corresponding Cancer Risk[d]							**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2
Total Neurological HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-D11-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.7	MR04-D12-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	6250	MR04-D12-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	11.8	MR04-D12-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-D13-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.094 J	MR04-D14-0-1-07D	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	2.4	MR04-D14-0-1-07D	3.9E-01	1E-06		6E-06	
Iron	3990	MR04-D14-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.3	MR04-D14-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D15

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Arsenic	3.4	J	MR04-D15-0-1-07C	3.9E-01	1E-06		9E-06	
Iron	7140	J	MR04-D15-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	13.6	J	MR04-D15-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0.5**		
Cumulative Corresponding Cancer Risk[d]							**9E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D16

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Arsenic	2.2	J	MR04-D16-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4370	J	MR04-D16-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.1	J	MR04-D16-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D17

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	0.74		MR04-D17-0-1-07C	6.2E-01	1E-06		1E-06	
Benzo(a)pyrene	0.9		MR04-D17-0-1-07C	6.2E-02	1E-06		1E-05	
Benzo(b)fluoranthene	1.1		MR04-D17-0-1-07C	6.2E-01	1E-06		2E-06	
Dibenz(a,h)anthracene	0.13	J	MR04-D17-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)								
Arsenic	8.5	J	MR04-D17-0-1-07C	3.9E-01	1E-06		2E-05	
Iron	6250	J	MR04-D17-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	16	J	MR04-D17-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0.5**		
Cumulative Corresponding Cancer Risk[d]							**4E-05**	
							Total Blood HI =	0.3
							Total Gastrointestinal HI =	0.3
							Total Liver HI =	0.3
							Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit D18

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.078	J	MR04-D18-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)								
Arsenic	3.2	J	MR04-D18-0-1-07C	3.9E-01	1E-06		8E-06	
Cumulative Corresponding Hazard Index[c]						**0.0**		
Cumulative Corresponding Cancer Risk[d]							**9E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit D19

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.15	J	MR04-D19-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)								
Arsenic	2.9	J	MR04-D19-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	4800	J	MR04-D19-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	14.7	J	MR04-D19-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0.4**		
Cumulative Corresponding Cancer Risk[d]							**1E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E01

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)								
Dieldrin	0.096		MR04-E01-0-1-07C	3.0E-02	1E-06		3E-06	
Metals (mg/kg)								
Arsenic	4.3	J	MR04-E01-0-1-07C	3.9E-01	1E-06		1E-05	
Iron	7030	J	MR04-E01-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	17.6		MR04-E01-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0**		
Cumulative Corresponding Cancer Risk[d]							**1E-05**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit E02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.3	MR04-E02-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	3710	MR04-E02-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-E03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-E04-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	4160	MR04-E04-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.3	MR04-E04-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-E05-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3560	MR04-E05-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.9	MR04-E05-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-E06-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-E07-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-E08-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.83	MR04-E09-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-E10-0-1-07D	3.9E-01	1E-06		4E-06	
Vanadium	9	MR04-E10-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-E11-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.1	MR04-E12-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	3410 J	MR04-E12-0-1-07D	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Vanadium	9.1	MR04-E12-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-E13-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2	MR04-E14-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E15

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-E15-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6 J	MR04-E16-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E17

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)anthracene	2.8	MR04-E17-0-1-07C	6.2E-01	1E-06		5E-06	
Benzo(a)pyrene	3.6	MR04-E17-0-1-07C	6.2E-02	1E-06		6E-05	
Benzo(b)fluoranthene	5.2	MR04-E17-0-1-07C	6.2E-01	1E-06		8E-06	
Metals (mg/kg)							
Arsenic	2 J	MR04-E17-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**8E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit E18

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.11	J	MR04-E18-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)								
Arsenic	3.3	J	MR04-E18-0-1-07C	3.9E-01	1E-06		8E-06	
Vanadium	10.9	J	MR04-E18-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.1**		
Cumulative Corresponding Cancer Risk[d]							**1E-05**	
							Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E19

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.99	J	MR04-E19-0-1-07C	6.2E-02	1E-06		2E-05	
Metals (mg/kg)								
Arsenic	4.6	J	MR04-E19-0-1-07C	3.9E-01	1E-06		1E-05	
Iron	3360	J	MR04-E19-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Vanadium	9.1	J	MR04-E19-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**3E-05**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E20

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.11	J	MR04-E20-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)								
Arsenic	2.9	J	MR04-E20-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	3620	J	MR04-E20-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.4	J	MR04-E20-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**9E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E21

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7 J	MR04-E21-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E22

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.081	J	MR04-E20-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)								
Arsenic	2.7	J	MR04-E22D-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	5400	J	MR04-E22D-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.8	J	MR04-E22D-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]						**0.4**		
Cumulative Corresponding Cancer Risk[d]							**8E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit E23

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.13	J	MR04-E23-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)								
Arsenic	1.8	J	MR04-E23-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]						**0.0**		
Cumulative Corresponding Cancer Risk[d]							**7E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit E24

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.99	MR04-E24-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F01

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide/Polychlorinated Biphenyls (mg/kg)								
Dieldrin	0.036		MR04-F01-0-1-07C	3.0E-02	1E-06		1E-06	
Metals (mg/kg)								
Arsenic	2.0	J	MR04-F01-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3590	J	MR04-F01-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.3		MR04-F01-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F02

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Arsenic	1.5	J	MR04-F02-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3480	J	MR04-F02-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]						**0.2**		
Cumulative Corresponding Cancer Risk[d]							**4E-06**	
							Total Blood HI =	0.2
							Total Gastrointestinal HI =	0.2
							Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-F03-0-1-07C	3.9E-01	1E-06		4E-06	
Vanadium	10.7	MR04-F03-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.13 J	MR04-F04-0-1-07D	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	1.9	MR04-F04-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	3920	MR04-F04-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	12	MR04-F04-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.4	MR04-F05-0-1-07D	3.9E-01	1E-06		6E-06	
Iron	4560	MR04-F05-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.6	MR04-F05-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-F06-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	5250	MR04-F06-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.3	MR04-F06-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-F07-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3590	MR04-F07-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-F08-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.16 J	MR04-F09-0-1-07D	6.2E-02	1E-06		3E-06	
Metals (mg/kg)							
Arsenic	1.5	MR04-F09-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3750	MR04-F09-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9	MR04-F09-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-F10-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-F11-0-1-07D	3.9E-01	1E-06		5E-06	
Iron	4230	MR04-F11-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-F12-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3360 J	MR04-F12-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-F13-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.5	MR04-F14-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	3790	MR04-F14-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	14.1	MR04-F14-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F15

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	3.5	MR04-F15-0-1-07C	3.9E-01	1E-06		9E-06	
Iron	3560 J	MR04-F15-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9	MR04-F15-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**9E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)anthracene	0.85	MR04-D17-0-1-07C	6.2E-01	1E-06		1E-06	
Benzo(a)pyrene	1	MR04-F16-0-1-07C	6.2E-02	1E-06		2E-05	
Benzo(b)fluoranthene	1.3	MR04-F16-0-1-07C	6.2E-01	1E-06		2E-06	
Dibenz(a,h)anthracene	0.15 J	MR04-F16-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	2.1	MR04-F16-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F17

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.21 J	MR04-F17-0-1-07C	6.2E-02	1E-06		3E-06	
Metals (mg/kg)							
Arsenic	2.1	MR04-F17-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**9E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit F18

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.18 J	MR04-F18-0-1-07C	6.2E-02	1E-06		3E-06	
Metals (mg/kg)							
Arsenic	3.5	MR04-F18-0-1-07C	3.9E-01	1E-06		9E-06	
Iron	4020	MR04-F18-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.2	MR04-F18-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F19

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2	MR04-F19-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F20

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	4	MR04-F20-0-1-07C	3.9E-01	1E-06		1E-05	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F21

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.066 J	MR04-F21-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.5	MR04-F21-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Decision Unit F22

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-F22-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F23

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.6	MR04-F23-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	3300	MR04-F23-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F24

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.7	MR04-F24-0-1-07C	3.9E-01	1E-06		7E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit F25

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2 J	MR04-F25-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit G01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ	
Metals (mg/kg)								#REF!
Arsenic	1.4	MR04-G01-0-1-07C	3.9E-01	1E-06		4E-06		#REF!
Cumulative Corresponding Hazard Index[c]					**0.0**			
Cumulative Corresponding Cancer Risk[d]						**4E-06**		

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit G02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-F23-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3440	MR04-F23-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit G04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.2	MR04-G04-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	5490	MR04-G04-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.5	MR04-G04-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.7	MR04-G05-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	8010	MR04-G05-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	14.8	MR04-G05-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.9	MR04-G06-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	6070	MR04-G06-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	15.2	MR04-G06-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.36 J	MR04-G08-0-1-07C	6.2E-02	1E-06		6E-06	
Metals (mg/kg)							
Arsenic	1.7	MR04-G08D-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-G09-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-G10-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-G11-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-G12-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-G13-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.076 J	MR04-G14-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	2.1	MR04-G14-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3880	MR04-G14-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.6	MR04-G14-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.29 J	MR04-G15-0-1-07C	6.2E-02	1E-06		5E-06	
Metals (mg/kg)							
Arsenic	1.3	MR04-G15-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)anthracene	0.71	MR04-G16-0-1-07C	6.2E-01	1E-06		1E-06	
Benzo(a)pyrene	0.57	MR04-G16-0-1-07C	6.2E-02	1E-06		9E-06	
Dibenz(a,h)anthracene	0.073 J	MR04-G16-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.9	MR04-G16-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.
CNS = Central Nervous System
COPC = Constituent of Potential Concern
J = Estimated Value
mg/kg = Milligrams per kilogram
NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-G17-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3920	MR04-G17-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.31 J	MR04-G18-0-1-07C	6.2E-02	1E-06		5E-06	
Metals (mg/kg)							
Arsenic	2.1	MR04-G18-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4850	MR04-G18-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.24 J	MR04-G19-0-1-07C	6.2E-02	1E-06		4E-06	
Metals (mg/kg)							
Arsenic	2	MR04-G19-0-1-07C	3.9E-01	1E-06		5E-06	
Vanadium	9.9	MR04-G19-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**9E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.063 J	MR04-G20-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	2.2	MR04-G20-0-1-07C	3.9E-01	1E-06		6E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Aluminum	8100	MR04-G21-0-1-07C	7.6E+04	1	0.1		Neurological
Arsenic	3.5	MR04-G21-0-1-07C	3.9E-01	1E-06		9E-06	
Iron	4830 J	MR04-G21-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.7	MR04-G21-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**9E-06**	

Total Neurological HI =	0.1
Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-G22-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.54	MR04-G23-0-1-07C	6.2E-02	1E-06		9E-06	
Benzo(b)fluoranthene	0.7	MR04-G23-0-1-07C	6.2E-01	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	4.2	MR04-G23-0-1-07C	3.9E-01	1E-06		1E-05	
Iron	3970	MR04-G23-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.5	MR04-G23-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**2E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-G24-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

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J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.8	MR04-G25-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

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J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-H01-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.29	MR04-H02-0-1-07C	3.0E-02	1E-06		1E-05	
Metals (mg/kg)							
Arsenic	1.2	MR04-H02-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-H05-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-H06-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.038	MR04-H07-0-1-07C	3.0E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.1	MR04-H07-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-H08-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-H09-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-H10-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-H11-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.078	MR04-H12-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	2	MR04-H12-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.4	MR04-H13-0-1-07C	3.9E-01	1E-06		6E-06	
Vanadium	9.3	MR04-H13-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-H14-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.1 J	MR04-H15-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	1.7	MR04-H15-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.083 J	MR04-H16-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.1	MR04-H16-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.49	MR04-H17-0-1-07C	6.2E-02	1E-06		8E-06	
Dibenz(a,h)anthracene	0.1 J	MR04-H17-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	1.8	MR04-H17-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-H18-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-H19-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3350	MR04-H19-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.5	MR04-H20-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4740	MR04-H20-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.6	MR04-H20-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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HI = Hazard Index

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.25 J	MR04-H21-0-1-07C	6.2E-02	1E-06		4E-06	
Metals (mg/kg)							
Arsenic	2.4	MR04-H21-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4100	MR04-H21-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.3	MR04-H21-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

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mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2	MR04-H22-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4630	MR04-H22-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.7	MR04-H22-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.2	MR04-H23-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4240	MR04-H23-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.2	MR04-H23-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.86	MR04-I01-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-I02-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-I03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-I04-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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HI = Hazard Index

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-I06-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3960	MR04-I06-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.6	MR04-I06-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-I07-0-1-07D	3.9E-01	1E-06		3E-06	
Vanadium	9.1	MR04-I07-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.73 J	MR04-I08-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.08 J	MR04-I10-0-1-07D	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.3	MR04-I10-0-1-07D	3.9E-01	1E-06		3E-06	
Vanadium	10.9	MR04-I10-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-I11-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3420 J	MR04-I11-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.08 J	MR04-I10-0-1-07D	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.3	MR04-I10-0-1-07D	3.9E-01	1E-06		3E-06	
Vanadium	10.9	MR04-I10-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-I13-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-I14-0-1-0C	3.9E-01	1E-06		4E-06	
Vanadium	13.4	MR04-I14-0-1-0C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-I15-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.16 J	MR04-I16-0-1-07C	6.2E-02	1E-06		3E-06	
Metals (mg/kg)							
Arsenic	2.8	MR04-I16-0-1-07C	3.9E-01	1E-06		7E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.2	MR04-I17-0-1-07C	3.9E-01	1E-06		6E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-I18-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3340	MR04-I18-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Vanadium	9.9	MR04-I18-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Blood HI =	0.1
						Total Gastrointestinal HI =	0.1
						Total Liver HI =	0.1
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.9	MR04-I19-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	3880	MR04-I19-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.4	MR04-I19-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-I20-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4650 J	MR04-I20-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11.7	MR04-I20-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2
						Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-I21-0-1-07C	3.9E-01	1E-06		5E-06	
Vanadium	9	MR04-I21-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-J01-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-J02-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-J03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.91 J	MR04-J04-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.98	MR04-J05-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3600	MR04-J05-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.68 J	MR04-J07-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

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COPC = Constituent of Potential Concern

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.12 J	MR04-J10-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	2.4	MR04-J10-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4650 J	MR04-J10-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.7	MR04-J10-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-J11-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	4390	MR04-J11-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Arsenic	1.9	L	MR04-J12-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4040	J	MR04-J12-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]						**0.2**		
Cumulative Corresponding Cancer Risk[d]							**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.064 J	MR04-J13-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	1.8	MR04-J13-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.23 J	MR04-J14-0-1-07C	6.2E-02	1E-06		4E-06	
Metals (mg/kg)							
Arsenic	2	MR04-J14-0-1-07C	3.9E-01	1E-06		5E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**9E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	0.32	J	MR04-J15-0-1-07C	6.2E-02	1E-06		5E-06	
Metals (mg/kg)								
Arsenic	2.2	J	MR04-J15-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	3670	J	MR04-J15-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.5		MR04-J15-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.2**		
Cumulative Corresponding Cancer Risk[d]							**1E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7 J	MR04-J16-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)								
Dieldrin	0.36		MR04-J17-0-1-07C	3.0E-02	1E-06		1E-05	
Metals (mg/kg)								
Arsenic	2.2	J	MR04-J17-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	3670	J	MR04-J17-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]						**0.2**		
Cumulative Corresponding Cancer Risk[d]							**2E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.5	MR04-J18-0-1-07C	6.2E-02	1E-06		8E-06	
Benzo(b)fluoranthene	0.072	MR04-J18-0-1-07C	6.2E-01	1E-06		1E-07	
Dibenz(a,h)anthracene	0.064 J	MR04-J18-0-1-07C	6.2E-02	1E-06		1E-06	
Metals (mg/kg)							
Arsenic	2	MR04-J18-0-1-07C	3.9E-01	1E-06		5E-06	
Vanadium	11.7	MR04-J18-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**1E-05**	
						Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2 J	MR04-J19-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3680 J	MR04-J19-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.2	MR04-J19-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9 J	MR04-J20-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4230 J	MR04-J20-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	11	MR04-J20-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.5	MR04-K01-0-1-07D	3.9E-01	1E-06		6E-06	
Iron	10,800	MR04-K01-0-1-07D	2.3E+04	1	0.5		Blood, Gastrointestinal, Liver
Vanadium	15.9	MR04-K01-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.7**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.5
Total Gastrointestinal HI =	0.5
Total Liver HI =	0.5
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.95	MR04-K02-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit K03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.68 J	MR04-K03-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit K04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-K04-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3,390	MR04-K04-0-1-07D	2.3E+04	1	0.15		Blood, Gastrointestinal, Liver
Vanadium	9.1	MR04-K04-0-1-07D	7.8E+01	1	0.12		Kidney
Cumulative Corresponding Hazard Index[c]					**0.26**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-K05-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3,770	MR04-K05-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.1	MR04-K05-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-K06-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	4,780	MR04-K06-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	13	MR04-K06-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-K07-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit K08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-K08-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	3,520	MR04-K08-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.7	MR04-K08-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.97	MR04-K09-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit K10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-K10-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit K11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.4	MR04-K11-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	5,990 J	MR04-K11-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	13	MR04-K11-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.3	MR04-K12-0-1-07C	3.9E-01	1E-06		6E-06	
Vanadium	10.2	MR04-K12-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	3.1	MR04-K13-0-1-07C	3.9E-01	1E-06		8E-06	
Iron	5,510 J	MR04-K13-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	12.7	MR04-K13-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	6.1	MR04-K14-0-1-07C	3.9E-01	1E-06		2E-05	
Iron	7,010	MR04-K14-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	12.1	MR04-K14-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**2E-05**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)anthracene	0.76	MR04-K15-0-1-07C	6.2E-01	1E-06		1E-06	
Benzo(a)pyrene	0.76	MR04-K15-0-1-07C	6.2E-02	1E-06		1E-05	
Benzo(b)fluoranthene	1.4	MR04-K15-0-1-07C	6.2E-01	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	14.2	MR04-K15-0-1-07C	3.9E-01	1E-06		4E-05	
Iron	4410	MR04-K15-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.1	MR04-K15-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-05**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Decision Unit K16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-K16-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4,330	MR04-K16-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9	MR04-K16-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit K17

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-K17-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K18

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.7	MR04-K18-0-1-07C	3.9E-01	1E-06		7E-06	
Iron	5,420	MR04-K18-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	12.4	MR04-K18-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)								
Dieldrin	0.19		MR04-K18-0-1-07C	3.0E-02	1E-06		6E-06	
Metals (mg/kg)								
Aluminum	14200	J	MR04-K19-0-1-07C	7.6E+04	1	0.2		Neurological
Arsenic	5.4		MR04-K19-0-1-07C	3.9E-01	1E-06		1E-05	
Iron	9510	J	MR04-K19-0-1-07C	2.3E+04	1	0.4		Blood, Gastrointestinal, Liver
Vanadium	28.6		MR04-K19-0-1-07C	7.8E+01	1	0.4		Kidney
Cumulative Corresponding Hazard Index[c]						**1.0**		
Cumulative Corresponding Cancer Risk[d]							**2E-05**	

Total Neurological HI =	0.2
Total Blood HI =	0.4
Total Gastrointestinal HI =	0.4
Total Liver HI =	0.4
Total Kidney HI =	0.4

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit K20

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Pesticide (mg/kg)							
Dieldrin	0.063	MR04-K20-0-1-07C	3.0E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	1.8	MR04-K20-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3420 J	MR04-K20-0-1-07C	2.3E+04	1	0.1		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**7E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-L01-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.85	MR04-L02-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-L03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.97	MR04-L04-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.86 J	MR04-L05-0-1-07D	3.9E-01	1E-06		2E-06	
Vanadium	10.3	MR04-L05-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.1**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	
						Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-L06-0-1-07D	3.9E-01	1E-06		3E-06	
Iron	5,600	MR04-L06-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.6	MR04-L06-0-1-07D	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.73 J	MR04-L07-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-L08-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	7,360	MR04-L08-0-1-07D	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	14	MR04-L08-0-1-07D	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.9	MR04-L09-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	4,580 J	MR04-L09-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	12.3	MR04-L09-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-L10-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semi-volatile Organic Compounds (mg/kg)							
Benzo(a)pyrene	0.12 J	MR04-L11-0-1-07C	6.2E-02	1E-06		2E-06	
Metals (mg/kg)							
Arsenic	2.5	MR04-L11-0-1-07C	3.9E-01	1E-06		6E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**8E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.

CNS = Central Nervous System

COPC = Constituent of Potential Concern

J = Estimated Value

mg/kg = Milligrams per kilogram

NOAEL = No Observed Adverse Effect Level

Decision Unit L12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.2	MR04-L12-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	6,240	MR04-L12-0-1-07C	2.3E+04	1	0.27		Blood, Gastrointestinal, Liver
Vanadium	11.8	MR04-L12-0-1-07C	7.8E+01	1	0.15		Kidney
Cumulative Corresponding Hazard Index[c]					**0.42**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.5	MR04-L13-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	6,770	MR04-L13-0-1-07C	2.3E+04	1	0.29		Blood, Gastrointestinal, Liver
Vanadium	11.9	MR04-L13-0-1-07C	7.8E+01	1	0.15		Kidney
Cumulative Corresponding Hazard Index[c]					**0.45**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.3
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-L14-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3,910	MR04-L14-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9.2	MR04-L14-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-L16-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3,810 J	MR04-L16-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	9	MR04-L16-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L17

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-L17D-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	3,580 J	MR04-L17D-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L18

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.2	MR04-L18-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4,830 J	MR04-L18-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.7	MR04-L18-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]					**0.3**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit L19

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-L19-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-M01-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3,250	MR04-M01-0-1-07D	2.3E+04	1	0.14		Blood, Gastrointestinal, Liver
Vanadium	10.2	MR04-M01-0-1-07D	7.8E+01	1	0.13		Kidney
Cumulative Corresponding Hazard Index[c]					**0.27**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.1
Total Gastrointestinal HI =	0.1
Total Liver HI =	0.1
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-M02-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-M03-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-M04-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-M05-0-1-07C	3.9E-01	1E-06		4E-06	
Iron	4,980	MR04-M05-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	14.2	MR04-M05-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-M06-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M07

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.99	MR04-M07-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-M08-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-M09-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3,810	MR04-M09-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.7	MR04-M09-0-1-07D	3.9E-01	1E-06		4E-06	
Iron	3,680	MR04-M09-0-1-07D	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.88 J	MR04-M11-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit M12

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-M12-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

NA = No available/not applicable.

Decision Unit M13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Aluminum	9,440	MR04-M13-0-1-07C	7.6E+04	1	0.1		Neurological
Arsenic	2.4	MR04-M13-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	5,860 J	MR04-M13-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	13	MR04-M13-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.3
Total Neurological HI =	0.1
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Aluminum	7,920	MR04-M14-0-1-07C	7.6E+04	1	0.1		Neurological
Arsenic	2.4	MR04-M14-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4,850 J	MR04-M14-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	13.1	MR04-M14-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Neurological HI =	0.1
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M15

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3 J	MR04-M15-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit M16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.82 J	MR04-M16-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit M17

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.7 J	MR04-M17-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit M18

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-M18-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = No available/not applicable.

Decision Unit M19

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.6	MR04-M19-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.63 J	MR04-N01-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.79 J	MR04-N02-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-N04-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.89	MR04-N05-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-N06-0-1-07D	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1	MR04-N07-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.96 J	MR04-N08-0-1-07D	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-N09-0-1-07D	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit N10

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Aluminum	9,980	MR04-N10-0-1-07C	7.6E+04	1	0.1		Neurological
Arsenic	2.4	MR04-N10-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	6,060 J	MR04-N10-0-1-07C	2.3E+04	1	0.3		Blood, Gastrointestinal, Liver
Vanadium	15.4	MR04-N10-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.6**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.3
Total Neurological HI =	0.1
Total Gastrointestinal HI =	0.3
Total Liver HI =	0.3
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit N11

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Aluminum	8,560	MR04-N11-0-1-07C	7.6E+04	1	0.1		Neurological
Arsenic	2.2	MR04-N11-0-1-07C	3.9E-01	1E-06		6E-06	
Iron	4,840	MR04-N11-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	16	MR04-N11-0-1-07C	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.5**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Neurological HI =	0.1
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit N12

Analyte	Detected Concentration (Qualifier)		Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Arsenic	1.9	J	MR04-N12-0-1-07C	3.9E-01	1E-06		5E-06	
Iron	3,700	J	MR04-N12-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	10.5	J	MR04-N12-0-1-07C	7.8E+01	1	0.1		Kidney
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**5E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.1

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit N13

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.1 J	MR04-N13-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit N14

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.68 J	MR04-N14-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit N15

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.77 J	MR04-N15-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.0**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit N16

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.3	MR04-N16-0-1-07C	3.9E-01	1E-06		3E-06	
Iron	4,280	MR04-N16-0-1-07C	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]					**0.2**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	
						Total Blood HI =	0.2
						Total Gastrointestinal HI =	0.2
						Total Liver HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

mg/kg = Milligrams per kilogram

Decision Unit O01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.99	MR04-O01-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit O02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.5	MR04-O02-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit O03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-O03-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit O04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	2.5	MR04-O04-0-1-07C1	3.9E-01	1E-06		6E-06	
Iron	5,110 J	MR04-O04-0-1-07C1	2.3E+04	1	0.2		Blood, Gastrointestinal, Liver
Vanadium	13.6	MR04-O04-0-1-07C1	7.8E+01	1	0.2		Kidney
Cumulative Corresponding Hazard Index[c]					**0.4**		
Cumulative Corresponding Cancer Risk[d]						**6E-06**	

Total Blood HI =	0.2
Total Gastrointestinal HI =	0.2
Total Liver HI =	0.2
Total Kidney HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit O05

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1	MR04-O05-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit O06

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.2	MR04-O06-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit O08

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.68 J	MR04-O08-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit O09

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.84 J	MR04-O09-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit P01

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-P01-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit P02

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	1.4	MR04-P02-0-1-07C	3.9E-01	1E-06		4E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**4E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Decision Unit P03

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.68 J	MR04-P03-0-1-07C	3.9E-01	1E-06		2E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**2E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

J = Estimated Value

mg/kg = Milligrams per kilogram

Decision Unit P04

Analyte	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)							
Arsenic	0.99	MR04-P04-0-1-07C	3.9E-01	1E-06		3E-06	
Cumulative Corresponding Hazard Index[c]					**0.00**		
Cumulative Corresponding Cancer Risk[d]						**3E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

Appendix H-2 Table 1

SELECTION OF EXPOSURE PATHWAYS

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current	Groundwater	Groundwater	Tap Water	Resident	Adult	Dermal Absorption	On-site	None	Groundwater not currently used on site as a water supply.
						Ingestion	On-site	None	Groundwater not currently used on site as a water supply.
					Child	Dermal Absorption	On-site	None	Groundwater not currently used on site as a water supply.
						Ingestion	On-site	None	Groundwater not currently used on site as a water supply.
	Surface Soil	Surface Soil	UXO-04 Surface Soil	Resident	Adult	Dermal	On-site	None	No residents currently live on site.
						Ingestion	On-site	None	No residents currently live on site.
					Child	Dermal	On-site	None	No residents currently live on site.
						Ingestion	On-site	None	No residents currently live on site.
Current/Future	Surface Soil	Surface Soil	UXO-04 Surface Soil	Trespasser/ Visitor	Adult	Dermal	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
						Ingestion	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
					Youth	Dermal	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
						Ingestion	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
					Child	Dermal	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
						Ingestion	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
		Air	Emissions from Surface Soil	Trespasser/ Visitor	Adult	Inhalation	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
					Youth	Inhalation	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
					Child	Inhalation	On-site	Quant	Nearby residents may trespass/visit on site and contact surface soil.
	Surface Water	Surface Water	UXO-04 Surface Water	Recreational	Adult	Dermal	On-site	Quant	Nearby residents may trespass on site and contact surface water.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact surface water.
					Youth	Dermal	On-site	Quant	Nearby residents may trespass on site and contact surface water.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact surface water.
					Child	Dermal	On-site	Quant	Nearby residents may trespass on site and contact surface water.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact surface water.

Appendix H-2 Table 1

SELECTION OF EXPOSURE PATHWAYS

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Sediment	Sediment	UXO-04 Sediment	Recreational	Adult	Dermal	On-site	Quant	Nearby residents may trespass on site and contact sediment.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact sediment.
					Youth	Dermal	On-site	Quant	Nearby residents may trespass on site and contact sediment.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact sediment.
					Child	Dermal	On-site	Quant	Nearby residents may trespass on site and contact sediment.
						Ingestion	On-site	Quant	Nearby residents may trespass on site and contact sediment.
Future	Groundwater	Groundwater	Tap Water	Resident	Adult	Dermal Absorption	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
						Ingestion	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
					Child	Dermal Absorption	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
						Ingestion	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
					Child/Adult	Dermal Absorption	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
						Ingestion	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
				Industrial Worker	Adult	Dermal Absorption	On-site	None	Groundwater is not currently used as a potable water supply for the base and under continuing use of the site as a base it is unlikely groundwater would be used as a potable water supply. Additionally, the residential scenario is more conservative
						Ingestion	On-site	None	Groundwater is not currently used as a potable water supply for the base and under continuing use of the site as a base it is unlikely groundwater would be used as a potable water supply. Additionally, the residential scenario is more conservative
			Excavation Pit	Construction Worker	Adult	Dermal Absorption	On-site	Quant	Construction worker may contact shallow groundwater during excavation activities.
						Ingestion	On-site	None	Construction worker not expected to incidentally ingest significant amount of groundwater during construction activities.
		Air	Shower	Resident	Adult	Inhalation	On-site	Quant	Although unlikely, groundwater could be used as a potable water supply in the future.
					Child	Inhalation	On-site	None	Children are assumed not to shower.
					Child/Adult	Inhalation	On-site	None	Children are assumed to take baths, not showers, resulting in minimal inhalation exposure.

Appendix H-2 Table 1

SELECTION OF EXPOSURE PATHWAYS

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
			Excavation Pit	Construction Worker	Adult	Inhalation	On-site	Quant	Construction worker may inhale vapors from groundwater during excavation activities.

Appendix H-2 Table 1

SELECTION OF EXPOSURE PATHWAYS

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Combined Surface and Subsurface Soil	Surface and Subsurface Soil	UXO-04 Soil	Resident	Adult	Dermal	On-site	Quant	On-site residents may contact soil on site.
						Ingestion	On-site	Quant	On-site residents may contact soil on site.
					Child	Dermal	On-site	Quant	On-site residents may contact soil on site.
						Ingestion	On-site	Quant	On-site residents may contact soil on site.
				Industrial Worker	Adult	Dermal	On-site	Quant	Site workers may contact soil on site.
						Ingestion	On-site	Quant	Site workers may contact soil on site.
				Construction Worker	Adult	Dermal	On-site	Quant	Construction workers may contact soil on site.
						Ingestion	On-site	Quant	Construction workers may contact soil on site.
		Air	Emissions from Soil	Resident	Adult	Inhalation	On-site	Quant	On-site residents may contact soil on site.
					Child	Inhalation	On-site	Quant	On-site residents may contact soil on site.
				Industrial Worker	Adult	Inhalation	On-site	Quant	Site workers may contact soil on site.
				Construction Worker	Adult	Inhalation	On-site	Quant	Construction workers may contact soil on site.

APPENDIX H-2
TABLE 2.1
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

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

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 Toxicity Value	[4]	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
UXO-04	75-15-0	Carbon disulfide	2.2E-01	J	1.4E+00		UG/L	MR04-SW08-07C	4/15	0.5 - 10	1.4E+00	NA	1.0E+02	N	NA	NA	NO	BSL
Surface Water	108-88-3	Toluene	3.0E+00	J	3.0E+00	J	UG/L	MR04-SW08-06A	1/15	0.5 - 10	3.0E+00	NA	1.3E+03	NRWQC	NA	NA	NO	BSL
	85-68-7	Butylbenzylphthalate	6.3E-01	J	1.3E+00	J	UG/L	MR04-SW01-07C	5/15	5.1 - 14	1.3E+00	NA	1.5E+03	NRWQC	NA	NA	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	1.4E+00	J	1.6E+01		UG/L	MR04-SW07-06A	8/15	5.1 - 14	1.6E+01	NA	1.2E+00	NRWQC	NA	NA	YES	ASL
	72-54-8	4,4'-DDD	1.0E-02	J	1.0E-02	J	UG/L	MR04-SW07-06A	1/15	0.02 - 0.13	1.0E-02	NA	3.1E-04	NRWQC	NA	NA	YES	ASL
	60-57-1	Dieldrin	1.3E-02	J	4.0E-02	J	UG/L	MR04-SW07-06A	3/15	0.02 - 0.13	4.0E-02	NA	5.2E-05	NRWQC	5.0E-05	NC 2B	YES	ASL
	7421-93-4	Endrin aldehyde	4.0E-02	J	4.0E-02	J	UG/L	MR04-SW01-06A	1/15	0.02 - 0.13	4.0E-02	NA	2.9E-01	NRWQC	NA	NA	NO	BSL
	76-44-8	Heptachlor	5.9E-03	J	1.4E-02	J	UG/L	MR04-SW08-07C	2/15	0.01 - 0.06	1.4E-02	NA	3.9E-05	NRWQC	8.0E-05	NC 2B	YES	ASL
	319-84-6	alpha-BHC	6.4E-03	J	6.4E-03	J	UG/L	MR04-SW08-07C	1/15	0.01 - 0.06	6.4E-03	NA	2.6E-03	NRWQC	NA		YES	ASL
	319-85-7	beta-BHC	6.3E-03	J	1.1E-02	J	UG/L	MR04-SW08-07C	2/15	0.01 - 0.06	1.1E-02	NA	9.1E-03	NRWQC	NA		YES	ASL
	319-86-8	delta-BHC	1.8E-02	J	1.8E-02	J	UG/L	MR04-SW08-07C	1/15	0.01 - 0.06	1.8E-02	NA	3.7E-02	C	NA		NO	BSL
	7429-90-5	Aluminum	2.3E+02		7.2E+03	J	UG/L	MR04-SW04-06A	14/15	200 - 200	7.2E+03	NA	3.6E+03	N	NA	NA	YES	ASL
	7440-36-0	Antimony	2.6E+00	J	2.6E+00	J	UG/L	MR04-SW02-07C	1/15	10 - 60	2.6E+00	NA	5.6E+00	NRWQC	NA	NA	NO	BSL
	7440-38-2	Arsenic	3.1E+00	J	1.8E+01	J	UG/L	MR04-SW06-07C	9/15	10 - 25	1.8E+01	NA	1.8E-02	NRWQC	NA	NA	YES	ASL
	7440-39-3	Barium	1.1E+01	J	7.7E+01	J	UG/L	MR04-SW02-07C	6/15	50 - 200	7.7E+01	NA	2.6E+02	N	NA	NA	NO	BSL
	7440-41-7	Beryllium	2.1E-01	J	3.7E-01	J	UG/L	MR04-SW04-06A	3/15	5 - 5	3.7E-01	NA	7.3E+00	N	NA	NA	NO	BSL
	7440-70-2	Calcium	5.4E+03		2.9E+05		UG/L	MR04-SW05-07C	15/15	5000 - 5000	2.9E+05	NA	NA		NA	NA	NO	NUT
	7440-47-3	Chromium	1.2E+00	J	8.2E+00	J+	UG/L	MR04-SW04-06A	11/15	10 - 20	8.2E+00	NA	1.1E+01	N	NA	NA	NO	BSL
	7440-48-4	Cobalt	9.5E-01	J	4.4E+00	J	UG/L	MR04-SW06-07C	3/15	10 - 50	4.4E+00	NA	7.3E+01	N	NA	NA	NO	BSL
	7439-89-6	Iron	1.4E+02		5.0E+03		UG/L	MR04-SW04-06A	15/15	100 - 100	5.0E+03	NA	3.0E+02	NP	NA	NA	YES	ASL
	7439-92-1	Lead	8.9E-01	J	8.4E+00	J+	UG/L	MR04-SW04-06A	7/15	3 - 10	8.4E+00	NA	1.5E+01	SWDA AL	NA	NA	NO	BSL
	7439-95-4	Magnesium	4.6E+04	J	9.2E+05		UG/L	MR04-SW05-07C	14/15	5000 - 5000	9.2E+05	NA	NA		NA	NA	NO	NUT
	7439-96-5	Manganese	2.0E+01		1.1E+02	J+	UG/L	MR04-SW05-06A	15/15	5 - 15	1.1E+02	NA	5.0E+01	NRWQC	NA	NA	YES	ASL
	7440-02-0	Nickel	2.7E+00	J+	2.7E+00	J+	UG/L	MR04-SW04-06A	1/15	10 - 40	2.7E+00	NA	6.1E+02	NRWQC	2.5E+01	NC 2B	NO	BSL
	7440-09-7	Potassium	1.7E+04	J	2.9E+05		UG/L	MR04-SW05-07C	14/15	5000 - 50000	2.9E+05	NA	NA		NA	NA	NO	NUT
	7782-49-2	Selenium	1.7E+01	J	5.4E+01	J	UG/L	MR04-SW06-07C	7/15	5 - 50	5.4E+01	NA	1.7E+02	NRWQC	NA	NA	NO	BSL
	7440-22-4	Silver	2.1E-01	J	2.5E-01	J	UG/L	MR04-SW06-07C	2/15	5 - 10	2.5E-01	NA	1.8E+01	N	NA	NA	NO	BSL
	7440-23-5	Sodium	8.5E+03		7.2E+06		UG/L	MR04-SW03-07C	15/15	5000 - 500000	7.2E+06	NA	NA		NA	NA	NO	NUT
	7440-28-0	Thallium	6.5E-01	J	3.8E+00	J-	UG/L	MR04-SW05-06A	6/15	5 - 10	3.8E+00	NA	2.4E-01	NRWQC	NA	NA	YES	ASL
	7440-62-2	Vanadium	1.1E+00	J	2.6E+01	J	UG/L	MR04-SW03-07C	9/15	25 - 50	2.6E+01	NA	3.6E+00	N	NA	NA	YES	ASL
	7440-66-6	Zinc	2.0E+01	J+	2.4E+01	J+	UG/L	MR04-SW03-06A	2/13	20 - 100	2.4E+01	NA	7.4E+03	NRWQC	NA	NA	NO	BSL

APPENDIX H-2
TABLE 2.1
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

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

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. Total metals data evaluated.
[2] Maximum concentration is used for screening.
[3] Background values not available.
[4] Screening value is the Ingestion of Water and Aquatic Organisms Value from USEPA National Recommended Water Quality Criteria (NRWQC), 2006.
Where NRWQC is not available use the EPA Region 9 PRGs Table, Tap Water, October 2004, U.S. EPA Region 9 (based on 10 -6 for carcinogens and HQ of 0.1 for noncarcinogens).
PRG value for chromium VI used for total chromium.
Lead action level is 15 µg/L, Safe Drinking Water Action Level.
Rationale Codes
[5] Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
NC 2B = North Carolina Department of Environment and Natural Resources, 15A NCAC 02B, lower of human health and water supply standard May 1, 2007.
J+ = Estimated Biased High
J- = Estimated Biased Low
J = Estimated
C = Carcinogenic
N = Noncarcinogenic
NA = Not Available
NP = Non-priority pollutant

APPENDIX H-2
TABLE 2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

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
UXO-04	78-93-3	2-Butanone	1.4E-02 J	5.6E-02 J	MG/KG	MR04-SD08-07C	3/15	0.012 - 0.076	5.6E-02	NA	2.2E+03 N	NA	NA	NO	BSL
Sediment	67-64-1	Acetone	7.4E-03 J	2.7E-01	MG/KG	MR04-SD08-07C	6/15	0.012 - 0.076	2.7E-01	NA	1.4E+03 N	NA	NA	NO	BSL
	75-15-0	Carbon disulfide	1.5E-03 J	3.7E-03 J	MG/KG	MR04-SD06-07C	2/15	0.012 - 0.076	3.7E-03	NA	3.6E+01 N	NA	NA	NO	BSL
	79-20-9	Methyl acetate	2.2E-02 J	3.1E-02 J	MG/KG	MR04-SD08-07C	2/15	0.012 - 0.076	3.1E-02	NA	2.2E+03 N	NA	NA	NO	BSL
	106-44-5	4-Methylphenol	5.4E-02 J	5.4E-02 J	MG/KG	MR04-SD08-06A	1/15	0.4 - 2.5	5.4E-02	NA	3.1E+01 N	NA	NA	NO	BSL
	98-86-2	Acetophenone	4.8E-02 J	1.3E-01 J	MG/KG	MR04-SD08-07C	5/15	0.4 - 2.5	1.3E-01	NA	NA	NA	NA	NO	BSL
	100-52-7	Benzaldehyde	9.8E-02 J	4.6E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	4.6E-01	NA	6.1E+02 N	NA	NA	NO	BSL
	56-55-3	Benzo(a)anthracene	2.5E-02 J	2.5E-02 J	MG/KG	MR04-SD03-07C	1/15	0.4 - 2.5	2.5E-02	NA	6.2E-01 C	NA	NA	NO	BSL
	50-32-8	Benzo(a)pyrene	2.3E-02 J	3.0E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	3.0E-01	NA	6.2E-02 C	NA	NA	YES	ASL
	205-99-2	Benzo(b)fluoranthene	2.6E-02 J	5.3E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	5.3E-01	NA	6.2E-01 C	NA	NA	NO	BSL
	191-24-2	Benzo(g,h,i)perylene	1.9E-01 J	1.9E-01 J	MG/KG	MR04-SD08-07C	1/15	0.4 - 2.5	1.9E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	207-08-9	Benzo(k)fluoranthene	2.5E-02 J	4.9E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	4.9E-01	NA	6.2E+00 C	NA	NA	NO	BSL
	85-68-7	Butylbenzylphthalate	2.6E-02 J	1.4E-01 J	MG/KG	MR04-SD06-07C	2/15	0.4 - 2.5	1.4E-01	NA	1.2E+03 N	NA	NA	NO	BSL
	218-01-9	Chrysene	2.8E-02 J	3.7E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	3.7E-01	NA	6.2E+01 C	NA	NA	NO	BSL
	206-44-0	Fluoranthene	4.7E-02 J	6.1E-01 J	MG/KG	MR04-SD08-07C	3/15	0.4 - 2.5	6.1E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	193-39-5	Indeno(1,2,3-cd)pyrene	1.7E-01 J	1.7E-01 J	MG/KG	MR04-SD08-07C	1/15	0.4 - 2.5	1.7E-01	NA	6.2E-01 C	NA	NA	NO	BSL
	85-01-8	Phenanthrene	3.7E-02 J	3.7E-02 J	MG/KG	MR04-SD03-07C	1/15	0.4 - 2.5	3.7E-02	NA	2.3E+02 N	NA	NA	NO	BSL
	129-00-0	Pyrene	8.3E-02 J	6.5E-01 J	MG/KG	MR04-SD08-07C	2/15	0.4 - 2.5	6.5E-01	NA	2.3E+02 N	NA	NA	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	3.7E-02 J	4.9E-01 J	MG/KG	MR04-SD08-07C	9/15	0.4 - 2.5	4.9E-01	NA	3.5E+01 C	NA	NA	NO	BSL
	72-54-8	4,4'-DDD	1.2E-03 J	1.1E+00	MG/KG	MR04-SD02-06A	12/15	0.004 - 0.12	1.1E+00	NA	2.4E+00 C	NA	NA	NO	BSL
	72-55-9	4,4'-DDE	1.1E-03 J	5.2E-01	MG/KG	MR04-SD03-06A	13/15	0.004 - 0.12	5.2E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	50-29-3	4,4'-DDT	8.6E-04 J	1.9E-01	MG/KG	MR04-SD03-06A	8/15	0.004 - 0.12	1.9E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	309-00-2	Aldrin	5.4E-03 J	5.4E-03 J	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	5.4E-03	NA	2.9E-02 C	NA	NA	NO	BSL
	60-57-1	Dieldrin	7.4E-04 J	2.3E-02	MG/KG	MR04-SD08-07C	3/15	0.004 - 0.025	2.3E-02	NA	3.0E-02 C	NA	NA	NO	BSL
	1031-07-8	Endosulfan sulfate	1.0E-03 J	2.2E-02	MG/KG	MR04-SD03-06A	3/15	0.004 - 0.025	2.2E-02	NA	3.7E+01 N	NA	NA	NO	BSL
	53494-70-5	Endrin ketone	5.1E-04 J	2.0E-03 J	MG/KG	MR04-SD02-06A	4/15	0.004 - 0.025	2.0E-03	NA	3.7E+01 N	NA	NA	NO	BSL
	5103-71-9	alpha-Chlordane	1.2E-02	1.2E-02	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	1.2E-02	NA	1.6E+00 C	NA	NA	NO	BSL
	5103-74-2	gamma-Chlordane	1.2E-02	1.2E-02	MG/KG	MR04-SD08-07C	1/15	0.0021 - 0.013	1.2E-02	NA	1.6E+00 C	NA	NA	NO	BSL
	98-95-3	Nitrobenzene	3.0E-02 J	3.0E-02 J	MG/KG	MR04-SD04-06A	1/15	0.098 - 0.12	3.0E-02	NA	2.0E+00 N	NA	NA	NO	BSL
	7429-90-5	Aluminum	2.7E+02	1.8E+04	MG/KG	MR04-SD02-07C	15/15	17.8 - 208	1.8E+04	NA	7.6E+03 N	NA	NA	YES	ASL
	7440-36-0	Antimony	3.9E-01 J	3.9E-01 J	MG/KG	MR04-SD03-07C	1/15	5.4 - 62.4	3.9E-01	NA	3.1E+00 N	NA	NA	NO	BSL

APPENDIX H-2
TABLE 2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

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
	7440-38-2	Arsenic	4.2E-01	J	4.8E+00		MG/KG	MR04-SD08-07C	14/15	0.89 - 10.4	4.8E+00	NA	3.9E-01	C	NA	NA	YES	ASL
	7440-39-3	Barium	1.5E+00	J	6.0E+01		MG/KG	MR04-SD02-06A	10/15	16.2 - 208	6.0E+01	NA	5.4E+02	N	NA	NA	NO	BSL
	7440-41-7	Beryllium	3.8E-02	J	4.8E-01	J	MG/KG	MR04-SD02-07C	8/15	0.45 - 5.2	4.8E-01	NA	1.5E+01	N	NA	NA	NO	BSL
	7440-43-9	Cadmium	6.3E-02	J	4.6E-01	J	MG/KG	MR04-SD08-07C	6/15	0.45 - 5.2	4.6E-01	NA	3.7E+00	N	NA	NA	NO	BSL
	7440-70-2	Calcium	1.3E+02	J	8.6E+03		MG/KG	MR04-SD06-06A	11/15	446 - 5200	8.6E+03	NA	NA		NA	NA	NO	BSL
	7440-47-3	Chromium	8.4E-01	J	1.4E+01		MG/KG	MR04-SD08-07C	15/15	0.89 - 10.4	1.4E+01	NA	2.1E+02	N	NA	NA	NO	BSL
	7440-48-4	Cobalt	1.4E-01	J	1.6E+00	J	MG/KG	MR04-SD08-07C	8/15	4.5 - 52	1.6E+00	NA	9.0E+02	N	NA	NA	NO	BSL
	7440-50-8	Copper	1.7E+00	J	2.0E+02		MG/KG	MR04-SD06-06A	8/15	2.2 - 26	2.0E+02	NA	3.1E+02	N	NA	NA	NO	BSL
	7439-89-6	Iron	6.8E+02		1.2E+04	J	MG/KG	MR04-SD01-06A	15/15	8.9 - 104	1.2E+04	NA	2.3E+03	N	NA	NA	YES	ASL
	7439-92-1	Lead	9.6E-01	J	6.4E+01	J	MG/KG	MR04-SD02-06A	15/15	0.46 - 4.6	6.4E+01	NA	4.0E+02		NA	NA	NO	BSL
	7439-95-4	Magnesium	2.0E+02	J	7.9E+03		MG/KG	MR04-SD08-07C	10/15	446 - 5200	7.9E+03	NA	NA		NA	NA	NO	BSL
	7439-96-5	Manganese	3.3E+00		2.1E+01		MG/KG	MR04-SD06-06A	14/15	1.3 - 15.6	2.1E+01	NA	1.8E+02	N	NA	NA	NO	BSL
	7439-97-6	Mercury	3.0E-02	J	1.9E-01	J	MG/KG	MR04-SD06-06A	10/15	0.031 - 0.32	1.9E-01	NA	2.3E+00	N	NA	NA	NO	BSL
	7440-02-0	Nickel	2.9E-01	J	6.4E+00	J	MG/KG	MR04-SD08-07C	12/15	3.6 - 41.6	6.4E+00	NA	1.6E+02	N	NA	NA	NO	BSL
	7440-09-7	Potassium	1.5E+02	J	2.2E+03	J	MG/KG	MR04-SD08-07C	8/15	446 - 5200	2.2E+03	NA	NA		NA	NA	NO	BSL
	7782-49-2	Selenium	4.9E-01	J	4.0E+00	J	MG/KG	MR04-SD06-06A	4/15	0.77 - 16.2	4.0E+00	NA	3.9E+01	N	NA	NA	NO	BSL
	7440-23-5	Sodium	1.1E+03		3.3E+04		MG/KG	MR04-SD08-07C	13/15	446 - 5200	3.3E+04	NA	NA		NA	NA	NO	BSL
	7440-62-2	Vanadium	1.3E+00	J	4.5E+01	J	MG/KG	MR04-SD06-06A	15/15	4.5 - 52	4.5E+01	NA	7.8E+00	N	NA	NA	YES	ASL
	7440-66-6	Zinc	4.8E+00		9.1E+01		MG/KG	MR04-SD08-07C	14/15	3.1 - 27.7	9.1E+01	NA	2.3E+03	N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening.
[3] Background values not available.
[4] EPA Region 9 PRGs Table, October 2004, U.S. EPA Region 9, Residential Soil (based on 10 -6 for carcinogens and HQ of 0.1 for noncarcinogens).
PRG value for hexavalent chromium used for total chromium.
PRG for pyrene used as surrogate for benzo(g,h,i)perlyene and phenanthrene.
PRG value for chlordane is used as surrogate for alpha and gamma chlordane.
PRG value for methyl mercury used as surrogate for mercury.
PRG value for endosulfan used as surrogate for endosulfan sulfate.
PRG value for endrin used as surrogate for endrin ketone.
[5] Rationale Codes — Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic

APPENDIX H-2
TABLE 2.2a
Risk Ratio Screening for Sediment, Maximum Detected Concentration
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semivolatile Organic Compounds (mg/kg)								
Benzo(a)pyrene	3 / 15	3.0E-01 J	MR04-SD08-07C	6.2E-02	1E-06		5E-06	
Metals (mg/kg)								
Aluminum	15 / 15	1.8E+04	MR04-SD02-07C	7.6E+04	1	0.2		Neurological
Arsenic	14 / 15	4.8E+00	MR04-SD08-07C	3.9E-01	1E-06		1E-05	
Iron	15 / 15	1.2E+04 J	MR04-SD01-06A	2.3E+04	1	0.5		Blood, Gastrointestinal, Liver
Vanadium	**15 / 15**	**4.5E+01**	**MR04-SD06-06A**	**7.8E+01**	**1**	**0.6**		**Kidney**
Cumulative Corresponding Hazard Index[c]						**1.3**		
Cumulative Corresponding Cancer Risk[d]							**2E-05**	

Total Blood HI =	0.5
Total Gastrointestinal HI =	0.5
Total Liver HI =	0.5
Total Kidney HI =	0.6
Total Neurological HI =	0.2

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
HI = Hazard Index
J = Estimated Value
mg/kg = Milligrams per kilogram
NA = No available/not applicable.

APPENDIX H-2
TABLE 2.2b
Risk Ratio Screening for Sediment, 95% UCL Concentration
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	95% UCL		95% UCL Rationale	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Target Organ
Metals (ug/L)								
Vanadium	15 / 15	20.8	95% Stud-t	2	7.8E+01	1	0.3	Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]							**0.3**	
Cumulative Corresponding Cancer Risk[d]								
							Total Blood HI =	0.3
							Total Gastrointestinal HI =	0.3
							Total Liver HI =	0.3

[a] Corresponding Hazard Index equals 95% UCL divided by the RBC divided by the acceptable risk level.
[b] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
Constituent selected as COPC if it contributes to a Total Hazard Index by target organ greater than 0.5, otherwise, constituent not selected as COPC
Constituents selected as COPCs are indicated by shading.
ug/L = micrograms per liter
HI = Hazard Index

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration; for duplicate sample results, the maximum value was used in the calculation.
ProUCL, Version 4.0 used to determine distribution of data and calculate 95% UCL, following recommendations
in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: 95% Lands H-statistic (95% H-UCL); 95% Student-t UCL (95% Stud-t)

UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Anderson-Darling Test indicates data are gamma distributed.
(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.
(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).

APPENDIX H-2
TABLE 2.3
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

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
Groundwater	67-64-1	Acetone	5.8E+00 J	5.8E+00 J	UG_L	MR04-GW06-07C	1/16	5 - 10	5.8E+00	NA	5.5E+02 nc	7.0E+02	15A NCAC 2L	NO	BSL
	67-66-3	Chloroform	1.2E+00	5.1E+00 J	UG_L	MR04-MW02-06A	2/30	0.5 - 10	5.1E+00	NA	1.7E-01 ca	8.0E+01	MCL	YES	ASL
										NA		7.0E+01	15A NCAC 2L		
	74-87-3	Chloromethane	2.0E-01 J	2.8E-01 J	UG_L	MR04-GW03-07C	4/30	0.5 - 10	2.8E-01	NA	1.6E+01 nc	2.6E+00	15A NCAC 2L	NO	BSL
	108-88-3	Toluene	1.2E+00 J	5.0E+00 J	UG_L	MR04-MW12-06A	4/30	0.5 - 10	5.0E+00	NA	7.2E+01 nc	1.0E+03	MCL, 15A NCAC 2L	NO	BSL
	106-44-5	4-Methylphenol	1.2E+00 J	1.2E+00 J	UG_L	MR04-MW10-06A	1/30	4.8 - 13	1.2E+00	NA	1.8E+01 nc	3.5E+00	15A NCAC 2L	NO	BSL
	98-86-2	Acetophenone	1.1E+00 J	1.1E+00 J	UG_L	MR04-MW07-06A	1/30	4.8 - 13	1.1E+00	NA	NA	NA		NO	NTX
	84-74-2	Di-n-butylphthalate	6.7E-01 J	1.1E+00 J	UG_L	MR04-GW11-07C	2/30	4.8 - 13	1.1E+00	NA	3.6E+02 nc	7.0E+02	15A NCAC 2L	NO	BSL
	84-66-2	Diethylphthalate	2.1E+00 J	2.1E+00 J	UG_L	MR04-GW15-07C	1/30	4.8 - 13	2.1E+00	NA	2.9E+03 nc	5.0E+03	15A NCAC 2L	NO	BSL
	108-95-2	Phenol	6.2E-01 J	6.2E-01 J	UG_L	MR04-GW06-07C	1/30	4.8 - 13	6.2E-01	NA	1.1E+03 nc	3.0E+02	15A NCAC 2L	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	1.0E+00 J	8.1E+00 J	UG_L	MR04-MW08-06A	8/30	4.8 - 13	8.1E+00	NA	4.8E+00 ca	6.0E+00	MCL	YES	ASL
	1024-57-3	Heptachlor epoxide	1.2E-01	2.1E-01	UG_L	MR04-MW13-06A	3/30	0.0094 - 0.13	2.1E-01	NA	7.4E-03 ca*	2.0E-01	MCL	YES	ASL
										NA		3.8E-03	15A NCAC 2L		
	319-85-7	beta-BHC	4.8E-03 J	4.8E-03 J	UG/L	MR04-GW11-07C	1/30	0.0094 - 0.13	4.8E-03	NA	3.7E-02 ca	1.9E-02	15A NCAC 2L	NO	BSL
	118-96-7	2,4,6-Trinitrotoluene	6.5E-02 J	6.5E-02 J	UG/L	MR04-MW06-06A	1/30	0.25 - 0.26	6.5E-02	NA	1.8E+00 ca**	NA		NO	BSL
	121-14-2	2,4-Dinitrotoluene	9.6E-02 J	2.0E-01 J	UG/L	MR04-MW07-06A	2/30	0.25 - 0.26	2.0E-01	NA	7.3E+00 nc	NA		NO	BSL
	606-20-2	2,6-Dinitrotoluene	3.2E-01	3.2E-01	UG/L	MR04-MW12-06A	1/30	0.25 - 0.26	3.2E-01	NA	3.6E+00 nc	NA		NO	BSL
	99-99-0	4-Nitrotoluene	1.3E-01 J	1.6E+00	UG/L	MR04-MW07-06A	7/30	0.25 - 0.52	1.6E+00	NA	6.6E-01 ca*	NA		YES	ASL
	98-95-3	Nitrobenzene	7.7E-02 J	1.0E-01 J	UG/L	MR04-MW09-06A	2/30	0.25 - 0.26	1.0E-01	NA	3.4E-01 nc	NA		NO	BSL
	14797-73-0	Perchlorate	1.3E+00	1.3E+00	UG/L	MR04-MW15-06A	1/15	1 - 2	1.3E+00	NA	3.6E+00 ca/nc	NA		NO	BSL
	7429-90-5	Aluminum	1.5E+02 J	2.7E+03	UG/L	MR04-GW06-07C	21/30	200 - 200	2.7E+03	1.9E+03	3.6E+03 nc	50 - 200	SMCL	NO	BSL
	7440-38-2	Arsenic	5.8E-01 J	7.9E-01 J	UG/L	MR04-GW02-07C	4/30	1 - 10	7.9E-01	5.8E+00	4.5E-02 ca	1.0E+01	MCL	NO	BBL
												5.0E+01	15A NCAC 2L		
	7440-39-3	Barium	1.8E+01	2.7E+02	UG/L	MR04-GW06-07C	15/30	10 - 200	2.7E+02	8.6E+01	2.6E+02 nc	2.0E+03	MCL, 15A NCAC 2L	YES	ASL
	7440-41-7	Beryllium	1.6E-01 J	6.5E-01 J	UG/L	MR04-MW05-06A	7/30	5 - 5	6.5E-01	3.1E-01	7.3E+00 nc	4.0E+00	MCL	NO	BSL
	7440-43-9	Cadmium	2.1E-01 J	3.6E-01 J	UG/L	MR04-GW09-07C	3/30	1 - 5	3.6E-01	3.6E-01	1.8E+00 nc	5.0E+00	MCL	NO	BSL
												1.8E+00	15A NCAC 2L		
	7440-70-2	Calcium	6.7E+02 J	4.4E+04	UG/L	MR04-MW15-06A	17/30	5000 - 5000	4.4E+04	6.9E+04	NA	NA		NO	NUT
	7440-47-3	Chromium	1.7E+00 J	4.5E+02	UG/L	MR04-MW12-06A	7/30	2 - 10	4.5E+02	3.1E+00	1.1E+01 nc	1.0E+02	MCL	YES	ASL
												5.0E+01	15A NCAC 2L		
	7440-48-4	Cobalt	2.9E-01 J	3.6E+00 J	UG/L	MR04-GW05-07C	14/30	1 - 50	3.6E+00	3.4E+00	7.3E+01 nc	NA		NO	BSL
	7440-50-8	Copper	1.2E+00 J	1.7E+00 J	UG/L	MR04-GW09-07C	2/30	5 - 25	1.7E+00	2.8E+00	1.5E+02 nc	1.3E+03	MCL	NO	BSL
												1.0E+03	15A NCAC 2L		
	7439-89-6	Iron	1.7E+01 J	3.4E+03	UG/L	MR04-GW06-07C	20/30	100 - 100	3.4E+03	6.0E+03	1.1E+03 nc	3.0E+02	2MCL, 15A NCAC 2L	NO	BBL

APPENDIX H-2
TABLE 2.3
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

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
	7439-92-1	Lead	4.7E-01 J	2.2E+00 J	UG/L	MR04-MW03-06A	5/30	1 - 3	2.2E+00	2.8E+00	1.5E+01	1.5E+01	MCL, 15A NCAC 2L	NO	BSL
	7439-95-4	Magnesium	5.2E+02 J	1.3E+04	UG/L	MR04-GW01-07C	20/30	5000 - 5000	1.3E+04	6.4E+03	NA	NA		NO	NUT
	7439-96-5	Manganese	6.8E-01 J	1.6E+02	UG/L	MR04-MW06-06A	28/30	1 - 15	1.6E+02	2.1E+02	8.8E+01 nc	5.0E+01	15A NCAC 2L	NO	BBL
	7439-97-6	Mercury	5.4E-02 J	5.4E-02 J	UG/L	MR04-GW08-07C	1/30	0.2 - 0.2	5.4E-02	1.0E-01	1.1E+00 nc	2.0E+00	MCL	NO	BSL
												1.1E+00	15A NCAC 2L		
	7440-02-0	Nickel	5.8E-01 J	1.3E+01	UG/L	MR04-GW02-07C	22/30	1 - 40	1.3E+01	8.0E+00	7.3E+01 nc	1.0E+02	15A NCAC 2L	NO	BSL
	7440-09-7	Potassium	5.2E+02 J	1.2E+05	UG/L	MR04-MW12-06A	21/30	5000 - 25000	1.2E+05	3.3E+03	NA	NA		NO	NUT
	7782-49-2	Selenium	3.1E-01 J	6.9E+00 J	UG/L	MR04-GW01D-07C	11/30	5 - 5	6.9E+00	3.1E+00	1.8E+01 nc	5.0E+01	MCL, 15A NCAC 2L	NO	BSL
	7440-22-4	Silver	7.4E-01 J	4.7E+00 J	UG/L	MR04-MW04-06A	2/30	1 - 10	4.7E+00	7.7E-01	1.8E+01 nc	1.0E+02	2MCL	NO	BSL
												1.8E+01	15A NCAC 2L		
	7440-23-5	Sodium	4.1E+03 J	6.9E+04	UG/L	MR04-MW06-06A	28/30	5000 - 5000	6.9E+04	2.3E+04	NA	NA		NO	NUT
	7440-28-0	Thallium	5.2E+00 J	5.2E+00 J	UG/L	MR04-MW02-06A	1/30	1 - 10	5.2E+00	3.8E+00	2.4E-01 nc	2.0E+00	MCL	YES	ASL
	7440-62-2	Vanadium	8.9E-01 J	1.5E+01 J	UG/L	MR04-MW15-06A	9/30	5 - 50	1.5E+01	4.7E+00	3.6E+00 nc	NA		YES	ASL
	7440-66-6	Zinc	6.6E+00 J	5.7E+01 J	UG/L	MR04-MW07-06A	10/24	10 - 20	5.7E+01	4.2E+01	1.1E+03 nc	5.0E+03	2MCL	NO	BSL
												1.1E+03	15A NCAC 2L		

[1] Minimum/Maximum detected concentration. Unfiltered results for metals since in general no significant difference between filtered and unfiltered results.
[2] Maximum concentration is used for screening.
[3] Background values are two times the arithmetic mean basewide background shallow groundwater concentrations.
Background values are from *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina*, Baker Environmental, April 25, 2001.
[4] EPA Region 9 PRGs Table, Tap Water, October, 2004, U.S. EPA Region 9 (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens).
PRGs were updated if updated toxicity values were available.
PRG value for cadmium-water used as surrogate for cadmium.
PRG value for hexavalent chromium used for total chromium.
The tap water value of 15 ug/L for lead is the action level provided in the Drinking Water Regulations and Health Advisories.
PRG value for manganese-nonfood used as surrogate for manganese.
PRG value for mercuric chloride used as surrogate for mercury.
[5] Rationale Codes

Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)
Below Background Level (BBL)

MCL = Maximum Contaminant Level from EPA's National Primary Drinking Water Standards
2MCL = Secondary MCL
15A NCAC 2L = North Carolina Classifications and Groundwater Quality Standards, Amended April 1, 2005.
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
ca = Carcinogenic
nc = Noncarcinogenic
ca* - carcinogenic (where nc PRG<100 x ca PRG)
sat - soil saturation limit

APPENDIX H-2
TABLE 2.3a
Risk Ratio Screening for Groundwater, Maximum Detected Concentration
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	Detected Concentration (Qualifier)	Sample	EPA Region 9 Tap Water PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)								
Chloroform	**2 / 30**	**5.1E+00 J**	**MR04-MW02-06A**	**1.7E-01**	**1E-06**		**3E-05**	
Semivolatile Organic Compounds (ug/L)								
bis(2-Ethylhexyl)phthalate	**8 / 30**	**8.1E+00 J**	**MR04-MW08-06A**	**4.8E+00**	**1E-06**		**2E-06**	
Heptachlor epoxide	**3 / 30**	**2.1E-01**	**MR04-MW13-06A**	**7.4E-03**	**1E-06**		**3E-05**	
Explosives (ug/L)								
4-Nitrotoluene	**7 / 30**	**1.6E+00**	**MR04-MW07-06A**	**6.6E-01**	**1E-06**		**2E-06**	
Metals (ug/L)								
Barium	15 / 30	2.7E+02	MR04-GW06-07C	2.6E+03	1	0.1		Kidney
Chromium	**7 / 30**	**4.5E+02**	**MR04-MW12-06A**	**1.1E+02**	**1**	**4.1**		**NOAEL**
Thallium	**1 / 30**	**5.2E+00 J**	**MR04-MW02-06A**	**2.4E+00**	**1**	**2.2**		**Liver, Blood, Hair**
Vanadium	9 / 30	1.5E+01 J	MR04-MW15-06A	3.6E+01	1	0.4		Kidney
Cumulative Corresponding Hazard Index[c]						**6.7**		
Cumulative Corresponding Cancer Risk[d]							**6E-05**	

Total Blood HI =	**2.2**
Total Liver HI =	**2.2**
Total Kidney HI =	0.5
Total Hair HI =	**2.2**

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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.
CNS = Central Nervous System
COPC = Constituent of Potential Concern
HI = Hazard Index
J = Estimated Value
ug/L = micrograms per liter
NA = No available/not applicable.
NOAEL = No Observed Adverse Effect Level

APPENDIX H-2
TABLE 2.3b
Risk Ratio Screening for Groundwater, 95% UCL Concentration
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	95% UCL		95% UCL Rationale	EPA Region 9 Tap Water PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)									
Chloroform	**2 / 30**	**5.1E+00**	**Max**	**6**	**1.7E-01**	**1.0E-06**		**3E-05**	
Semivolatile Organic Compounds (ug/L)									
bis(2-Ethylhexyl)phthalate	**8 / 30**	**2.7E+00**	**95% KM-t**	**5**	**4.8E+00**	**1.0E-06**		**6E-07**	
Heptachlor epoxide	**3 / 30**	**1.3E-01**	**95% KM-t**	**1, 2**	**7.4E-03**	**1.0E-06**		**2E-05**	
Explosives (ug/L)									
4-Nitrotoluene	**7 / 30**	**3.4E-01**	**95% KM-t**	**1, 3, 4**	**6.6E-01**	**1.0E-06**		**5E-07**	
Metals (ug/L)									
Chromium	7 / 30	4.5E+01	95% KM-t	1, 3, 4	1.1E+02	1	0.4		NOAEL
Thallium	**1 / 30**	**2.0E+00**	**95% Stud-t**	**2**	**2.4E+00**	**1**	**0.8**		**Liver, Blood, Hair**
Cumulative Corresponding Hazard Index[c]							**1.3**	**5E-05**	
Cumulative Corresponding Cancer Risk[d]									
								Total Blood HI =	**0.8**
								Total Liver HI =	**0.8**
								Total Hair HI =	**0.8**

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.
[c] Cumulative Corresponding Hazard Index equals sum of Corresponding Hazard Indices for each constituent.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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
Constituents selected as COPCs are indicated by shading.
ug/L = micrograms per liter
HI = Hazard Index

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration; for duplicate sample results, the maximum value was used in the calculation.
ProUCL, Version 4.0 used to determine distribution of data and calculate 95% UCL, following recommendations
in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: 95% Kaplan-Meier (BCA) UCL (95% KM-BCA); 95% Student-t UCL (95% Stud-t); 95% Chebyshev (mean, std) UCL (95% Cheb-m);
95% Kaplan-Meier (t) UCL (95% KM-t);
UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Anderson-Darling Test indicates data are gamma distributed.
(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.
(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).

Appendix H-2
Table 2.3c
Site UXO-04, Knox Trailer Park
MCL Camp Lejeune, North Carolina

Station ID	Region IX PRGs - Tap Water Adjusted	Camp Lejeune Background GW 2X Mean	MR04-MW01	MR04-MW02	MR04-MW03	MR04-MW04	MR04-MW05	MR04-MW06	MR04-MW07	MR04-MW08	MR04-MW09
Sample ID			MR04-GW01-07C *	MR04-GW02-07C	MR04-GW03-07C	MR04-GW04-07C	MR04-GW05-07C	MR04-GW06-07C	MR04-GW07-07C	MR04-GW08-07C	MR04-GW09-07C
Sample Date			09/09/07	09/12/07	09/09/07	09/09/07	09/09/07	09/12/07	09/06/07	09/08/07	09/08/07
Chemical Name											
Volatile Organic Compounds (UG/L)											
Acetone	550	--	5 R	5 R	5 R	5 R	5 R	5.8 J	5 R	5 R	5 R
Chloroform	0.17	--	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	16	--	0.2 J	0.5 U	0.28 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Semivolatile Organic Compounds (UG/L)											
Di-n-butylphthalate	360	--	5.8 U	5 U	5.5 U	4.8 U	5.6 U	5.1 U	5.4 U	5.7 U	6.2 U
Diethylphthalate	2,900	--	5.8 U	5 U	5.5 U	4.8 U	5.6 U	5.1 U	5.4 U	5.7 U	6.2 U
Phenol	1,100	--	5.8 U	5 U	5.5 U	4.8 U	5.6 U	0.62 J	5.4 U	5.7 U	6.2 U
bis(2-Ethylhexyl)phthalate	4.8	--	5.8 U	5 U	1.1 J	4.8 U	5.6 U	1.1 J	5.4 U	1 J	6.2 U
Pesticide/Polychlorinated Biphenyls (UG/L)											
beta-BHC	0.037	--	0.01 U	0.0097 U	0.01 U	0.0094 U	0.01 U	0.0094 U	0.011 U	0.0099 U	0.0098 U
Explosives (UG/L)											
No Detections											
Total Metals (UG/L)											
Aluminum	3,600	1,886	**2,400**	221	496	150 J	1,340	**2,730**	299	200 U	200 U
Arsenic	0.045	5.77	1 U	0.79 J	1 U	1 U	1 U	0.58 J	1 U	1 U	1 U
Barium	260	86.2	**113**	76.3	**120**	20.2	**132**	**269**	**123 J**	42.9	10 U
Beryllium	7.3	0.308	0.28 J	5 U	0.2 J	5 U	**0.56 J**	5 U	**0.47 J**	5 U	5 U
Cadmium	1.8	0.358	1 U	1 U	1 U	1 U	0.25 J	0.21 J	1 U	1 U	**0.36 J**
Calcium	--	69,078	11,200	19,200	671 J	5,000 U	15,800	33,000	1,050 J	5,000 U	4,550 J
Chromium	11	3.13	2 U	**20.6**	2 U	2 U	2 U	**9.6**	2 U	2 U	2 U
Cobalt	73	3.4	1.4 J	1 U	2.3 J	0.29 J	**3.6 J**	1.9	1.9	1 U	2.4 J
Copper	150	2.76	5 U	5 U	5 U	5 U	5 U	1.2 J	5 U	5 U	1.7 J
Iron	1,100	5,999	100 U	210	100 U	19.8 J	124	3,360	100 U	17.3 J	442
Lead	15	2.8	0.47 J	1 U	1 U	1 U	1 U	1.2	0.85 J	1 U	1 U
Magnesium	--	6,363	**13,400**	1,550 J	4,650 J	1,460 J	**7,070**	764 J	2,440 J	1,080 J	516 J
Manganese	88	214	14.1	45.8	3.1	1.7	14.1	101	5.3	2.3	67.6
Mercury	1.1	0.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.054 J	0.2 U
Nickel	73	7.97	1.7	**12.8**	2.9	1 U	4.4	6	2.3	1 U	7.8
Potassium	--	3,277	**3,960 J**	**21,400**	2,260 J	1,060 J	1,880 J	**45,200**	5,000 U	1,190 J	1,150 J
Selenium	18	3.14	**6.9 J**	0.54 J	2.1 J	0.31 J	2 J	5 U	1.6 J	5 UJ	5 UJ
Sodium	--	22,508	4,050 J	17,700	**24,100**	13,600	6,420	**29,200**	6,910 U	9,790	**39,500**
Vanadium	3.6	4.72	5 U	5 U	5 U	5 U	5 U	3.6 J	5 U	0.89 J	1 J
Zinc	1,100	42.1	10 R	10 U	10.5 J	10 R	34.2 J	12.4	10 U	10 R	23.8 J

Notes:
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyed for, but not detected
UG/L - Micrograms per liter
UJ - Analyte not detected, quantitation limit may be inaccurate
* - Indicates that a duplicate sample was collected at this location. Most conservative value is reportec
Shading indicates exceedance of Region IX PRG criteria

Appendix H-2
Table 2.3c
Site UXO-04, Knox Trailer Park
MCL Camp Lejeune, North Carolina

Station ID	**Region IX PRGs - Tap Water Adjusted**	**Camp Lejeune Background GW 2X Mean**	MR04-MW01	MR04-MW02	MR04-MW03	MR04-MW04	MR04-MW05	MR04-MW06	MR04-MW07	MR04-MW08	MR04-MW09
Sample ID			MR04-GW01-07C *	MR04-GW02-07C	MR04-GW03-07C	MR04-GW04-07C	MR04-GW05-07C	MR04-GW06-07C	MR04-GW07-07C	MR04-GW08-07C	MR04-GW09-07C
Sample Date			09/09/07	09/12/07	09/09/07	09/09/07	09/09/07	09/12/07	09/06/07	09/08/07	09/08/07
Chemical Name											

Bold text indicates exceedance of Camp Lejeune Background Criteria

Appendix H-2
Table 2.3c
Site UXO-04, Knox Trailer Park
MCL Camp Lejeune, North Carolina

Station ID	Region IX PRGs - Tap Water Adjusted	Camp Lejeune Background GW 2X Mean	MR04-MW10	MR04-MW11	MR04-MW12	MR04-MW13	MR04-MW14	MR04-MW15
Sample ID			MR04-GW10-07C	MR04-GW11-07C	MR04-GW12-07C	MR04-GW13-07C	MR04-GW14-07C	MR04-GW15-07C
Sample Date			09/06/07	09/09/07	09/12/07	09/08/07	09/08/07	09/08/07
Chemical Name								
Volatile Organic Compounds (UG/L)								
Acetone	550	--	5 R	5 R	5 R	5 R	5 R	5 R
Chloroform	0.17	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	16	--	0.5 U	0.22 J	0.5 U	0.24 J	0.5 U	0.5 U
Semivolatile Organic Compounds (UG/L)								
Di-n-butylphthalate	360	--	5.5 U	1.1 J	5.1 U	5.8 U	6.9 U	0.67 J
Diethylphthalate	2,900	--	5.5 U	4.8 U	5.1 U	5.8 U	6.9 U	2.1 J
Phenol	1,100	--	5.5 U	4.8 U	5.1 U	5.8 U	6.9 U	5.2 U
bis(2-Ethylhexyl)phthalate	4.8	--	5.5 U	4.8 U	5.1 U	5.8 U	6.9 U	5.2 U
Pesticide/Polychlorinated Biphenyls (UG/L)								
beta-BHC	0.037	--	0.011 U	0.0048 J	0.01 U	0.0094 U	0.011 U	0.0094 U
Explosives (UG/L)								
No Detections								
Total Metals (UG/L)								
Aluminum	3,600	1,886	700	156 J	216	200 U	200 U	200 U
Arsenic	0.045	5.77	1 U	1 U	0.69 J	1 U	1 U	0.71 J
Barium	260	86.2	**94.1 J**	30.9	17.7	25.7	30.8	10 U
Beryllium	7.3	0.308	0.16 J	5 U	5 U	5 U	5 U	5 U
Cadmium	1.8	0.358	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	--	69,078	4,020 J	5,000 U	40,100	5,000 U	5,000 U	36,100
Chromium	11	3.13	2 U	2 U	1.7 J	2 U	2 U	2 U
Cobalt	73	3.4	1.5	1 U	1 U	1 U	0.32 J	1 U
Copper	150	2.76	5 U	5 U	5 U	5 U	5 U	5 U
Iron	1,100	5,999	516	100 U	225	125	69.4 J	47.2 J
Lead	15	2.8	1.5	1 U	1 U	1 U	1 U	1 U
Magnesium	--	6,363	**9,250**	1,080 J	830 J	919 J	702 J	605 J
Manganese	88	214	7.2	2.5	7	1.6	2.3	7.1
Mercury	1.1	0.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	73	7.97	0.58 J	0.76 J	1	1 U	1 U	1 U
Potassium	--	3,277	5,000 U	1,800 J	**9,680**	1,130 J	578 J	3,030 J
Selenium	18	3.14	1.8 J	0.34 J	5 U	5 UJ	5 UJ	5 UJ
Sodium	--	22,508	10,500 U	9,660	11,500	10,600	5,800	7,530
Vanadium	3.6	4.72	5 U	5 U	1.8 J	5 U	5 U	5 U
Zinc	1,100	42.1	10 U	6.6 J	10 U	10 R	10 R	10 R

Notes:
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyed for, but not detected
UG/L - Micrograms per liter
UJ - Analyte not detected, quantitation limit may be inaccurate
* - Indicates that a duplicate sample was collected at this location. Most conservative value is reportec
Shading indicates exceedance of Region IX PRG criteria

Appendix H-2
Table 2.3c
Site UXO-04, Knox Trailer Park
MCL Camp Lejeune, North Carolina

Station ID	**Region IX PRGs - Tap Water Adjusted**	**Camp Lejeune Background GW 2X Mean**	MR04-MW10	MR04-MW11	MR04-MW12	MR04-MW13	MR04-MW14	MR04-MW15
Sample ID			MR04-GW10-07C	MR04-GW11-07C	MR04-GW12-07C	MR04-GW13-07C	MR04-GW14-07C	MR04-GW15-07C
Sample Date			09/06/07	09/09/07	09/12/07	09/08/07	09/08/07	09/08/07
Chemical Name								

Bold text indicates exceedance of Camp Lejeune Background Criteria

APPENDIX H-2
TABLE 2.4
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Combined Surface and 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
UXO-04	67-64-1	Acetone	1.2E-02	1.2E-02 J	MG/KG	MR04-SS04-0-2 MR04-SS08-0-2	1/34	0.0095 - 0.015	1.2E-02	NA	1.4E+03 N	NA	NA	NO	BSL
Subsurface	79-20-9	Methyl acetate	6.9E-02	6.9E-02	MG/KG	MR04-IS31-2-4-07C	1/34	0.009 - 0.02	6.9E-02	NA	2.2E+03 N	NA	NA	NO	BSL
Soil	84-74-2	Di-n-butylphthalate	4.3E-02 J	1.0E-01 J	MG/KG	MR04-SS02-0-2	3/34	0.36 - 0.70	1.0E-01	NA	6.1E+02 N	NA	NA	NO	BSL
	206-44-0	Fluoranthene	7.0E-02	7.0E-02	MG/KG	MR04-SS05-0-4D	1/34	0.36 - 0.70	7.0E-02	NA	2.3E+02 N	NA	NA	NO	BSL
	129-00-0	Pyrene	7.9E-02 J	7.9E-02 J	MG/KG	MR04-SS05-0-4D	1/34	0.36 - 0.70	7.9E-02	NA	2.3E+02 N	NA	NA	NO	BSL
	117-81-7	bis(2-Ethylhexyl)phthalate	3.8E-02 J	3.6E-01 J	MG/KG	MR04-SS10-0-2	13/34	0.36 - 0.70	3.6E-01	NA	3.5E+01 C	NA	NA	NO	BSL
	72-54-8	4,4'-DDD	2.4E-03 J	9.8E-03	MG/KG	MR04-SS03-8-12	3/34	0.0036 - 0.0069	9.8E-03	NA	2.4E+00 C	NA	NA	NO	BSL
	72-55-9	4,4'-DDE	5.2E-04 J	2.4E-01	MG/KG	MR04-SS02-0-2	8/34	0.0036 - 0.02	2.4E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	50-29-3	4,4'-DDT	4.0E-04 J	1.1E-01 J	MG/KG	MR04-SS02-0-2	8/34	0.0036 - 0.02	1.1E-01	NA	1.7E+00 C	NA	NA	NO	BSL
	60-57-1	Dieldrin	4.6E-04 J	7.4E-03	MG/KG	MR04-SS02-0-2	5/34	0.0036 - 0.0069	7.4E-03	NA	3.1E-02 C	NA	NA	NO	BSL
	72-20-8	Endrin	6.5E-04 J	6.5E-04 J	MG/KG	MR04-SS07-4-6	1/34	0.0036 - 0.0069	6.5E-04	NA	1.8E+01 N	NA	NA	NO	BSL
	7421-93-4	Endrin aldehyde	2.9E-04 J	2.9E-04 J	MG/KG	MR04-SS04-0-2	1/34	0.0036 - 0.0069	2.9E-04	NA	1.8E+01 N	NA	NA	NO	BSL
	53494-70-5	Endrin ketone	6.0E-04 J	6.0E-04 J	MG/KG	MR04-SS10-0-2	1/34	0.0036 - 0.0069	6.0E-04	NA	1.8E+01 N	NA	NA	NO	BSL
	76-44-8	Heptachlor	2.2E-04 J	4.9E-04 J	MG/KG	MR04-SS07-4-6	4/34	0.0018 - 0.0036	4.9E-04	NA	1.1E-01 C	NA	NA	NO	BSL
	98-95-3	Nitrobenzene	2.0E-02 J	1.1E-01 J	MG/KG	MR04-SS01-0-4	8/34	0.099 - 0.12	1.1E-01	NA	2.0E+00 N	NA	NA	NO	BSL
	7429-90-5	Aluminum	2.6E+03	2.6E+04	MG/KG	MR04-SS09-2-4	34/34	33.5 - 40.9	2.6E+04	5.5E+03	7.6E+03 N	NA	NA	YES	ASL
	7440-36-0	Antimony	4.8E-01 J	9.6E-01 J	MG/KG	MR04-IS11D-2-4-07C	5/34	4.9 - 12.3	9.6E-01	3.6E-01	3.1E+00 N	NA	NA	NO	BSL
	7440-38-2	Arsenic	5.0E-01 J	9.6E+00 J	MG/KG	MR04-IS14-8-10-07C	30/34	1.7 - 2	9.6E+00	6.3E-01	3.9E-01 C	NA	NA	YES	ASL
	7440-39-3	Barium	5.3E+00	3.9E+01	MG/KG	MR04-SS01-0-4	25/34	33.5 - 40.9	3.9E+01	1.4E+01	5.4E+02 N	NA	NA	NO	BSL
	7440-41-7	Beryllium	2.9E-02 J	3.5E-01 J	MG/KG	MR04-SS05-0-4D	27/34	0.47 - 1	3.5E-01	1.0E-01	1.5E+01 N	NA	NA	NO	BSL
	7440-43-9	Cadmium	3.5E-02 J	7.9E-02 J	MG/KG	MR04-IS20-7-9-07C	9/34	0.41 - 0.8	7.9E-02	2.3E-02	3.9E+00 N	NA	NA	NO	BSL
	7440-70-2	Calcium	6.6E+01 J	5.1E+03	MG/KG	MR04-SS02-0-2	23/34	406 - 1020	5.1E+03	4.4E+02	N/A	NA	NA	NO	NUT
	7440-47-3	Chromium	3.1E+00	3.7E+01 J	MG/KG	MR04-SS09-2-4	34/34	1.7 - 2	3.7E+01	6.1E+00	2.2E+01 N	NA	NA	YES	ASL
	7440-48-4	Cobalt	9.6E-02 J	8.5E-01 J	MG/KG	MR04-SS09-2-4	28/34	8.4 - 10.2	8.5E-01	2.9E-01	1.4E+02 N	NA	NA	NO	BSL
	7440-50-8	Copper	3.1E-01 J	4.2E+00	MG/KG	MR04-IS29-10-12-07C	34/34	4.2 - 5.1	4.2E+00	2.6E+00	3.1E+02 N	NA	NA	NO	BSL
	7439-89-6	Iron	7.0E+02 J	2.4E+04	MG/KG	MR04-IS33-12-14-07C	34/34	16.7 - 20.5	2.4E+04	3.2E+03	2.3E+03 N	NA	NA	YES	ASL
	7439-92-1	Lead	3.6E+00	2.0E+01 J	MG/KG	MR04-IS31-2-4-07C	34/34	0.5 - 0.61	2.0E+01	8.5E+00	4.0E+02	NA	NA	NO	BSL
	7439-95-4	Magnesium	1.1E+02 J	1.1E+03	MG/KG	MR04-SS09-2-4	25/34	837 - 1020	1.1E+03	2.4E+02	N/A	NA	NA	NO	NUT

APPENDIX H-2
TABLE 2.4
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Combined Surface and 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
	7439-96-5	Manganese	3.5E+00		1.4E+01		MG/KG	MR04-SS09-2-4	27/34	2.5 - 5	1.4E+01	9.2E+00	1.8E+02	N	NA	NA	NO	BSL
	7439-97-6	Mercury	2.3E-02	J	7.3E-02	J	MG/KG	MR04-IS32D-12-14-07C	9/34	0.028 - 0.16	7.3E-02	7.1E-02	2.3E+00	N	NA	NA	NO	BSL
	7440-02-0	Nickel	3.7E-01	J	3.2E+00	J	MG/KG	MR04-SS09-2-4	32/34	3.2 - 8.2	3.2E+00	1.2E+00	1.6E+02	N	NA	NA	NO	BSL
	7440-09-7	Potassium	1.2E+02	J	1.2E+03	J	MG/KG	MR04-SS09-2-4	29/34	837 - 1020	1.2E+03	1.2E+02	N/A		NA	NA	NO	NUT
	7782-49-2	Selenium	2.6E-01	J	8.1E-01	J	MG/KG	MR04-SS08-0-2	10/34	0.84 - 5.6	8.1E-01	5.0E-01	3.9E+01	N	NA	NA	NO	BSL
	7440-23-5	Sodium	1.1E+01	J	1.1E+02	J	MG/KG	MR04-SS08-0-2	28/34	470 - 1020	1.1E+02	6.8E+01	N/A		NA	NA	NO	NUT
	7440-62-2	Vanadium	4.3E+00	J	4.0E+01	J	MG/KG	MR04-SS09-2-4	34/34	8.4 - 10.2	4.0E+01	8.9E+00	7.8E+00	N	NA	NA	YES	ASL
	7440-66-6	Zinc	1.5E+00	J	1.8E+01	J	MG/KG	MR04-SS05-0-4D	31/34	3.3 - 4.1	1.8E+01	6.6E+00	2.3E+03	N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening.
[3] Background values are from *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina*, Baker Environmental, April 25, 2001.
EPA Region 9 PRGs Table, Residential Soil, October 2004, U.S. EPA Region 9 (based on 10 -6 for carcinogens and HQ of 0.1 for noncarcinogens).
[4] Screening value for hexavalent chromium used for total chromium.
Screening value for endrin used as surrogate for endrin aldehyde and endrin ketone.
Rationale Codes
[5] Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/
To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic

APPENDIX H-2

TABLE 2.4a

Risk Ratio Screening for Combined Surface and Subsurface Soil, Maximum Detected Concentration

Site UXO-04, Knox Trailer Park

MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	Detected Concentration (Qualifier)	Sample	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Aluminum	34 / 34	2.6E+04	MR04-IS14-8-10-07C	7.6E+04	1	0.3		Neurological
Arsenic	30 / 34	9.6E+00	MR04-IS14-8-10-07C	3.9E-01	1E-06		2E-05	
Chromium	34 / 34	3.7E+01 J	MR04-SS09-2-4	2.2E+02	1	0.2		NOAEL
Iron	**34 / 34**	**2.4E+04**	**MR04-IS33-12-14-07C**	**2.3E+04**	**1**	**1.0**		**Blood, Gastrointestinal, Liver**
Vanadium	34 / 34	4.0E+01	MR04-SS09-2-4	7.8E+01	1	0.5		Kidney
Cumulative Corresponding Hazard Index[c]						**2.1**		
Cumulative Corresponding Cancer Risk[d]							**2E-05**	

Total Blood HI =	1.0
Total Gastrointestinal HI =	1.0
Total Liver HI =	1.0
Total Kidney HI =	0.5
Total Neurological HI =	0.3

[a] Corresponding Hazard Index equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the RBC divided by the acceptable risk level.

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

[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks 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

HI = Hazard Index

J = Estimated Value

mg/kg = Milligrams per kilogram

APPENDIX H-2

TABLE 2.4b

Risk Ratio Screening for Combined Surface and Subsurface Soil, 95% UCL Concentration

Site UXO-04, Knox Trailer Park

MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	95% UCL	95% UCL Rationale	EPA Region 9 Residential Soil PRG	Acceptable Risk Level	Corresponding Hazard Index[a]	Target Organ
Metals (mg/kg)							
Iron	34 / 34	9.8E+03 App. Gamma	3, 4	2.3E+04	1	0.4	Blood, Gastrointestinal, Liver
Cumulative Corresponding Hazard Index[c]						**0.4**	
Cumulative Corresponding Cancer Risk[d]							
						Total Blood HI =	0.4
						Total Gastrointestinal HI =	0.4
						Total Liver HI =	0.4

[a] Corresponding Hazard Index equals 95% UCL divided by the RBC divided by the acceptable risk level.

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

Constituent selected as COPC if it contributes to a Total Hazard Index by target organ greater than 0.5, otherwise, constituent not selected as COPC

Constituents selected as COPCs are indicated by shading.

mg/kg = Milligrams per kilogram

HI = Hazard Index

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration; for duplicate sample results, the maximum value was used in the calculation.

ProUCL, Version 4.0 used to determine distribution of data and calculate 95% UCL, following recommendations

in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).

Statstics: 95% Approximate Gamma (App. Gamma)

UCL Rationale:

(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.

(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.

(3) Anderson-Darling Test indicates data are gamma distributed.

(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.

(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).

Table 3.1.RME
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

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

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic	Rationale
Surface Water											
	bis(2-Ethylhexyl)phthalate	UG/L	3.8E+00	5.9E+00	NP	1.6E+01		5.9E+00	UG/L	95% KM-t	5
	4,4'-DDD	UG/L	6.7E-02	1.3E-01	NP	1.0E-02	J	1.0E-02	UG/L	Max	5, 6
	Dieldrin	UG/L	1.8E-02	2.5E-02	NP	4.0E-02	J	2.5E-02	UG/L	95% KM-t	1, 2
	Heptachlor	UG/L	7.1E-03	9.7E-03	NP	1.4E-02	J	9.7E-03	UG/L	95% KM-t	5
	alpha-BHC	UG/L	3.7E-02	6.6E-02	NP	6.4E-03	J	6.4E-03	UG/L	Max	5, 6
	beta-BHC	UG/L	7.0E-03	8.5E-03	NP	1.1E-02	J	8.5E-03	UG/L	95% KM-t	5
	Aluminum	UG/L	1.5E+03	3.6E+03	NP	7.2E+03	J	3.6E+03	UG/L	95% KM	1, 3, 4
	Arsenic	UG/L	8.2E+00	1.1E+01	NP	1.8E+01	J	1.1E+01	UG/L	95% KM-t	2
	Iron	UG/L	1.4E+03	2.2E+03	G	5.0E+03		2.2E+03	UG/L	App. Gamma	1, 3, 4
	Manganese	UG/L	4.2E+01	5.2E+01	NP	1.1E+02	J+	5.2E+01	UG/L	95% Stud-t	5
	Thallium	UG/L	1.2E+00	1.6E+00	NP	3.8E+00	J-	1.6E+00	UG/L	95% KM-t	1
	Vanadium	UG/L	6.3E+00	1.0E+01	NP	2.6E+01	J	1.0E+01	UG/L	95% KM-t	1, 3, 4

ProUCL, Version 4.0 used to determine distribution of data, and to calculate RME EPC and arithmetic mean, following recommendations in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).

Statstics: 95% Kaplan-Meier (BCA) UCL (95% KM-BCA); 95% Student-t UCL (95% Stud-t); 95% Chebyshev (mean, std) UCL (95% Cheb-m); 95% Kaplan-Meier (t) UCL (95% KM-t); 95% Kaplan-Meier Chebyshev (95% KM); 95% Approximate Gamma (App. Gamma)

UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Anderson-Darling Test indicates data are gamma distributed.
(4) Kolmogorov-Smirnov Test indicates data are gamma distributed.
(5) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).
(6) Max value used because 95% UCL greater than max.

Qualifier Definitions
J+ = Estimated Biased High
J- = Estimated Biased Low
J = Estimated

Table 3.2.RME
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)		Exposure Point Concentration			
							Value	Units	Statistic	Rationale
Groundwater										
	Chloroform	UG/L	2.7E+00	NA	5.1E+00	J	2.7E+00	UG/L	Mean-N	1
	bis(2-Ethylhexyl)phthalate	UG/L	5.0E+00	NA	8.1E+00	J	5.0E+00	UG/L	Mean-N	1
	Heptachlor epoxide	UG/L	3.8E-02	NA	2.1E-01		3.8E-02	UG/L	Mean-N	1
	4-Nitrotoluene	UG/L	2.4E-01	NA	1.6E+00		2.4E-01	UG/L	Mean-N	1
	Barium	UG/L	8.9E+01	NA	2.7E+02		8.9E+01	UG/L	Mean-N	1
	Chromium	UG/L	1.8E+01	NA	4.5E+02		1.8E+01	UG/L	Mean-N	1
	Thallium	UG/L	9.4E-01	NA	5.2E+00	J	9.4E-01	UG/L	Mean-N	1
	Vanadium	UG/L	2.6E+00	NA	1.5E+01	J	2.6E+00	UG/L	Mean-N	1

ProUCL, Version 4.0 used to determine distribution of data, and to calculate RME EPC and arithmetic mean, following recommendations in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: Mean based on normal distribution (Mean-N); Maximum detected concentration (Max)

UCL Rationale:
(1) Following EPA Region 4 risk assessment guidance, arithemetic average of wells in center of plume used as EPC.
(2) Average concentration higher than maximum detected concentration.

Definitions
J = Estimated
NA = Not applicable

Table 3.3.RME
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)		Exposure Point Concentration			
							Value	Units	Statistic	Rationale
Groundwater	Chloroform	UG/L	2.7E+00	NA	5.1E+00	J	2.7E+00	UG/L	Mean-N	1

ProUCL, Version 4.0 used to determine distribution of data, and to calculate RME EPC and arithmetic mean, following recommendations in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: Mean based on normal distribution (Mean-N); Maximum detected concentration (Max)

UCL Rationale:
(1) Following EPA Region 4 risk assessment guidance, arithemetic average of wells in center of plume used as EPC.
(2) Average concentration higher than maximum detected concentration.

Definitions
J = Estimated
NA = Not applicable

Table 3.1.CTE
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)		Exposure Point Concentration			
							Value	Units	Statistic	Rationale
Groundwater										
	Chloroform	UG/L	2.7E+00	NA	5.1E+00	J	2.7E+00	UG/L	Mean-N	1
	bis(2-Ethylhexyl)phthalate	UG/L	5.0E+00	NA	8.1E+00	J	5.0E+00	UG/L	Mean-N	1
	Heptachlor epoxide	UG/L	3.8E-02	NA	2.1E-01		3.8E-02	UG/L	Mean-N	1
	4-Nitrotoluene	UG/L	2.4E-01	NA	1.6E+00		2.4E-01	UG/L	Mean-N	1
	Barium	UG/L	8.9E+01	NA	2.7E+02		8.9E+01	UG/L	Mean-N	1
	Chromium	UG/L	1.8E+01	NA	4.5E+02		1.8E+01	UG/L	Mean-N	1
	Thallium	UG/L	9.4E-01	NA	5.2E+00	J	9.4E-01	UG/L	Mean-N	1
	Vanadium	UG/L	2.6E+00	NA	1.5E+01	J	2.6E+00	UG/L	Mean-N	1

ProUCL, Version 4.0 used to determine distribution of data, and to calculate RME EPC and arithmetic mean, following recommendations in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: Mean based on normal distribution (Mean-N); Maximum detected concentration (Max)

UCL Rationale:
(1) Following EPA Region 4 risk assessment guidance, arithemetic average of wells in center of plume used as EPC.
(2) Average concentration higher than maximum detected concentration.

Definitions
J = Estimated
NA = Not applicable

Table 3.2.CTE
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic	Rationale
Groundwater	Chloroform	UG/L	2.7E+00	NA	NP	5.1E+00	J	2.7E+00	UG/L	Mean-N	1

ProUCL, Version 4.0 used to determine distribution of data, and to calculate RME EPC and arithmetic mean, following recommendations in users guide (USEPA. April 2007. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Statstics: Mean based on normal distribution (Mean-N); Maximum detected concentration (Max)

UCL Rationale:
(1) Following EPA Region 4 risk assessment guidance, arithemetic average of wells in center of plume used as EPC.
(2) Average concentration higher than maximum detected concentration.

Definitions
J = Estimated
NA = Not applicable

TABLE 4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

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

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational	Adult	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	liters/hr	EPA, 2000	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	2.6	hr/day	EPA, 1989	1/BW x 1/AT
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
		Youth	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	CDI (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	liters/hr	EPA, 2000	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	2.6	hr/day	EPA, 1989	1/BW x 1/AT
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	10	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	45	kg	EPA, 2004	
				AT-N	Averaging Time (Non-Cancer)	3,650	EPA, 1989	EPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	EPA, 1989	EPA, 1989	
		Child	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	CDI (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	liters/hr	EPA, 2000	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	2.6	hr/day	EPA, 1989	1/BW x 1/AT
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	EPA, 1989	EPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	EPA, 1989	EPA, 1989	

TABLE 4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

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

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Adult	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	Chemical Specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	Chemical Specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical Specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	Chemical Specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical Specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	2.6	hr/event	EPA, 1989	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	24	years	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
Dermal	Recreational	Youth	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	Chemical Specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	Chemical Specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical Specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	Chemical Specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical Specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	2.6	hr/event	EPA, 1989	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	13,200	cm^2	EPA, 1997, (1)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	10	years	EPA, 2000	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	45	kg	EPA, 2000	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	3,650	EPA, 1989	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				AT-C	Averaging Time (Cancer)	25,550	EPA, 1989	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

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

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Child	UXO-04 Surface Water	CSW	Chemical Concentration in Surface Water	See Table 3.1.RME	µg/l	See Table 3.1.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	Chemical Specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	Chemical Specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical Specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	Chemical Specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical Specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	2.6	hr/event	EPA, 1989	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	45	days/year	EPA, 2000	
				ED	Exposure Duration	6	years	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	15	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	2,190	EPA, 1989	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				AT-C	Averaging Time (Cancer)	25,550	EPA, 1989	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:

(1) Total body skin surface area of males and females aged 7 to 17 yrs old (data taken Tables 6-6 and 6-7 of EFH).

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa.

' EPA. 2000. Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000: http://www.epa.gov/region4/waste/ots/healtbul.htm.

EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. July 2004.

TABLE 4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-W	Ingestion Rate of Water	2	liters/day	EPA, 1997	CW x IR-W x EF x ED x CF1 x 1/BW x 1/AT
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	24	years	EPA, 2000	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) =
				IR-W	Ingestion Rate of Water	1	liters/day	EPA, 1997	CW x IR-W x EF x ED x CF1 x 1/BW x 1/AT
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) =
				IR-W-A	Ingestion Rate of Water, Adult	2	liters/day	EPA, 1997	CW x IR-W-Adj x EF x CF1 x 1/AT
				IR-W-C	Ingestion Rate of Water, Child	1	liters/day	EPA, 1997	
				IR-W-Adj	Ingestion Rate of Water, Age-adjusted	1.09	liter-year/kg-day	calculated	IR-W-Adj (liter-year/kd-day) =
				EF	Exposure Frequency	350	days/year	EPA, 1991	(ED-C x IR-W-C / BW-C) +
				ED-A	Exposure Duration, Adult	24	years	EPA, 2000	(ED-A x IR-W-A / BW-A)
				ED-C	Exposure Duration, Child	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW-A	Body Weight , Adult	70	kg	EPA, 1991	
				BW-C	Body Weight, Child	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Resident	Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	0.58	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF2 x CF3
				EF	Exposure Frequency	350	days/year	EPA, 2004	
				ED	Exposure Duration	24	years	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF2 x CF3
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	
		Child	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.0	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF2 x CF3
				EF	Exposure Frequency	350	days/year	EPA, 2004	
				ED	Exposure Duration	6	years	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	15	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF2 x CF3
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Resident	Child/Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) = DA-Adj x EF x 1/AT
				DAevent-A	Dermally Absorbed Dose per Event, Adult	calculated	mg/cm^2-event	calculated	
				DAevent-C	Dermally Absorbed Dose per Event, Child	calculated	mg/cm^2-event	calculated	DA-Adj = (Daevent-A x SA-A x ED-A x 1/BW-A)
				DA-Adj	Dermally Absorbed Dose, Age-adjusted	calculated	mg-year/event-kg	calculated	+ (Daevent-C x SA-C x ED-C x 1/BW-C)
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}-A	Event Time, Adult	0.58	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				t_{event}-C	Event Time, Child	1.0	hr/event	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				SA-A	Skin Surface Area, Adult	18,000	cm^2	EPA, 2004	x CF2 x CF3
				SA-C	Skin Surface Area, Child	6,600	cm^2	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				EF	Exposure Frequency	350	days/year	EPA, 2004	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				ED-A	Exposure Duration, Adult	24	years	EPA, 2004	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF2 x CF3
				ED-C	Exposure Duration, Child	6	years	EPA, 2004	
				BW-A	Body Weight, Adult	70	kg	EPA, 1991	
				BW-C	Body Weight, Child	15	ke	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Construction Worker	Adult	Excavation Pit	CW	Chemical Concentration in Water	See Table 3.2.RME	µg/l	See Table 3.2.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	4	hr/day	(1)	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	2,500	cm^2	EPA, 1997 (2)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	30	days/year	(3)	
				ED	Exposure Duration	1	years	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				AT-N	Averaging Time (Non-Cancer)	365	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:

(1) Professional Judgement based on construction activities that would result in contact with groundwater would occur 4 hrs per day for the RME.

(2) Assumes face, forearms and hands in contact with groundwater (using same assumptions used in Tetra Tech RI, November 2002).

(3) Assumes contact with groundwater during construction could occur 30 days per year (using same assumptions used in Tetra Tech RI, November 2002).

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa.

EPA, 2000: Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000

EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Shower	CW	Chemical Concentration in Water	See Table 3.3.RME	µg/l	See Table 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				InhExp	Inhalation Exposure per Shower	Calculated	mg/kg-shower	Calculated	InhExp x EF x ED x 1/AT
				EF	Exposure Frequency	350	days/year	EPA, 1991	Foster & Chrostowski Shower Inhalation Model
				ED	Exposure Duration	24	years	EPA, 1991	for InhExp
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Shower	CW	Chemical Concentration in Water	See Table 3.3.RME	µg/l	See Table 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				InhExp	Inhalation Exposure per Shower	Calculated	mg/kg-shower	Calculated	InhExp x EF x ED x 1/AT
				EF	Exposure Frequency	350	days/year	EPA, 1991	Foster & Chrostowski Shower Inhalation Model
				ED	Exposure Duration	6	years	EPA, 1991	for InhExp
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CW	Chemical Concentration in Water	See Table 3.3.RME	µg/l	See Table 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
		Child/Adult	Shower	InhExpa	Inhalation Exposure per Shower, Adult	Calculated	mg/kg-shower	Calculated	((InhExpa x EDa) + (InhExpc x ECc)) EF x 1/AT
				InhExpc	Inhalation Exposure per Shower, Child	Calculated	mg/kg-shower	Calculated	
				EF	Exposure Frequency	350	days/year	EPA, 1991	Foster & Chrostowski Shower Inhalation Model
				EDa	Exposure Duration, Adult	24	years	EPA, 1991	for InhExpa and InhExpc
				EDc	Exposure Duration, Child	6	years	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	z
				AT-N	Averaging Time (Non-Cancer)	9,125	days	EPA, 1989	
	Construction Worker	Adult	Excavation Pit	CW	Chemical Concentration in Water	See Table 3.3.RME	µg/l	See Table 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				CA	Chemical Concentration in Air	calculated	mg/m^3		CA x IN x ET x EF x ED x 1/BW x 1/AT
				IN	Inhalation Rate	2.5	m^3/hour	EPA, 2000	
				ET	Exposure Time	4	hr/day	(1)	$CA = VF_{gw,amb} \times Cgw \times 1\ mg / 1000\ ug$
				EF	Exposure Frequency	30	days/year	(2)	
				ED	Exposure Duration	1	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	EPA, 1989	
				$VF_{gw,amb}$	Volatilization Factor	calculalated	L/m^3	(see Table 7s)	

TABLE 4.3.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name

Notes:

(1) Professional Judgement based on construction activities that would result in contact with groundwater would occur 4 hrs per day for the RME.

(2) Assumes contact with groundwater during construction could occur 30 days per year (using same assumptions used in Tetra Tech RI, November 2002).

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 2000: Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000

TABLE 4.1.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDANCY
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-W	Ingestion Rate of Water	1.4	liters/day	EPA, 1997	CW x IR-W x EF x ED x CF1 x 1/BW x 1/AT
				EF	Exposure Frequency	234	days/year	EPA, 2003	
				ED	Exposure Duration	9	years	EPA, 2004	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3,285	days	EPA, 1989	
		Child	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	CDI (mg/kg-day) =
				IR-W	Ingestion Rate of Water	1	liters/day	EPA, 1997	CW x IR-W x EF x ED x CF1 x 1/BW x 1/AT
				EF	Exposure Frequency	234	days/year	EPA, 2003	
				ED	Exposure Duration	2	years	EPA, 2003	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	EPA, 1989	
		Child/Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	CDI (mg/kg-day) =
				IR-W-A	Ingestion Rate of Water, Adult	1.4	liters/day	EPA, 1997	CW x IR-W-Adj x EF x CF1 x 1/AT
				IR-W-C	Ingestion Rate of Water, Child	1	liters/day	EPA, 1997	
				IR-W-Adj	Ingestion Rate of Water, Age-adjusted	0.31	liter-year/kg-day	calculated	IR-W-Adj (liter-year/kd-day) =
				EF	Exposure Frequency	234	days/year	EPA, 2003	(ED-C x IR-W-C / BW-C) +
				ED-A	Exposure Duration, Adult	9	years	EPA, 2004	(ED-A x IR-W-A / BW-A)
				ED-C	Exposure Duration, Child	2	years	EPA, 2003	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW-A	Body Weight , Adult	70	kg	EPA, 1991	
				BW-C	Body Weight, Child	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.1.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDANCY

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Resident	Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	Calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	Chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	Chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	Chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	0.25	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 xτ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF2 x CF3
				EF	Exposure Frequency	234	days/year	EPA, 1993	
				ED	Exposure Duration	9	years	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + 3B^2)/(1+B)^2)) x CF2 x CF3
				AT-N	Averaging Time (Non-Cancer)	3,285	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	
		Child	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	Calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	Chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	Chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	Chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	0.33	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 xτ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF2 x CF3
				EF	Exposure Frequency	234	days/year	EPA, 1993	
				ED	Exposure Duration	2	years	EPA, 1993	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	15	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + 3B^2)/(1+B)^2)) x CF2 x CF3
				AT-N	Averaging Time (Non-Cancer)	730	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	

TABLE 4.1.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDANCY

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Resident	Child/Adult	Tap Water	CW	Chemical Concentration in Water	See Table 3.1.CTE	µg/l	See Table 3.1.CTE	CDI (mg/kg-day) = DA-Adj x EF x 1/AT
				DAevent-A	Dermally Absorbed Dose per Event, Adult	Calculated	mg/cm^2-event	calculated	
				DAevent-C	Dermally Absorbed Dose per Event, Child	Calculated	mg/cm^2-event	calculated	DA-Adj = (Daevent-A x SA-A x ED-A x 1/BW-A)
				DA-Adj	Dermally Absorbed Dose, Age-adjusted	Calculated	mg-year/event-kg	calculated	+ (Daevent-C x SA-C x ED-C x 1/BW-C)
				FA	Fraction absorbed water	Chemical specific	dimensionless	EPA, 2004	
				K_p	Permeability Coefficient	Chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	Chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF2 x CF3
				t*	Time to Reach Steady-state	Chemical specific	hours	EPA, 2004	
				B	Ratio of Permeability of Stratum Corneum to Epidermis	Chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}-A	Event Time, Adult	0.25	hr/event	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) =
				t_{event}-C	Event Time, Child	0.33	hr/event	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 xτ x t_{event})/π))
				SA-A	Skin Surface Area, Adult	18,000	cm^2	EPA, 2004	x CF2 x CF3
				SA-C	Skin Surface Area, Child	6,600	cm^2	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	t_{event}>t*: DAevent (mg/cm^2-event) =
				EF	Exposure Frequency	234	days/year	EPA, 1993	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				ED-A	Exposure Duration, Adult	9	years	EPA, 2004	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF2 x CF3
				ED-C	Exposure Duration, Child	2	years	EPA, 1993	
				BW-A	Body Weight, Adult	70	kg	EPA, 1991	
				BW-C	Body Weight, Child	15	ke	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				CF2	Conversion Factor 2	0.001	mg/µg	- -	
				CF3	Conversion Factor 3	0.001	l/cm^3	- -	

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 2003: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure, Draft.

EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.2.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDANCY

UXO-04 Knox Trailer Park

Camp Lejeune, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Water Vapors at Showerhead	CW	Chemical Concentration in Water	See Table 3.2.CTE	µg/l	See Table 3.2.CTE	Chronic Daily Intake (CDI) (mg/kg-day) =
				InhExp	Inhalation Exposure per Shower	Calculated	mg/kg-shower	Calculated	InhExp x EF x ED x 1/AT
				EF	Exposure Frequency	234	days/year	EPA, 1993	Foster & Chrostowski Shower Inhalation Model
				ED	Exposure Duration	9	years	EPA, 1993	for InhExp
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3,285	days	EPA, 1989	
		Child	Water Vapors at Showerhead	CW	Chemical Concentration in Water	See Table 3.2.CTE	µg/l	See Table 3.2.CTE	Chronic Daily Intake (CDI) (mg/kg-day) =
				InhExp	Inhalation Exposure per Shower	Calculated	mg/kg-shower	Calculated	InhExp x EF x ED x 1/AT
				EF	Exposure Frequency	234	days/year	EPA, 1993	Foster & Chrostowski Shower Inhalation Model
				ED	Exposure Duration	2	years	EPA, 2003	for InhExp
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	EPA, 1989	
		Child/Adult	Water Vapors at Showerhead	CW	Chemical Concentration in Water	See Table 3.2.CTE	µg/l	See Table 3.2.CTE	Chronic Daily Intake (CDI) (mg/kg-day) =
				InhExp	Inhalation Exposure per Shower	Calculated	mg/kg-shower	Calculated	InhExp x EF x ED x 1/AT
				EF	Exposure Frequency	234	days/year	EPA, 1993	Foster & Chrostowski Shower Inhalation Model
				ED-A	Exposure Duration , Adult	9	years	EPA, 1993	for InhExp
				ED-C	Exposure Duration, Child	2	years	EPA, 2003	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa.

EPA, 2000: Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000

EPA, 2003: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure, Draft.

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)
Chloroform	Chronic	1.0E-02	mg/kg-day	generally > 50%	1.0E-02	mg/kg-day	Liver	1000/1	IRIS	4/1/08
	Subchronic	1.0E-02	mg/kg-day	generally > 50%	1.0E-02	mg/kg-day	Liver	1000	HEAST	7/1/1997
bis(2-Ethylhexyl)phthalate	Chronic	2.0E-02	mg/kg-day	N/A	2.0E-02	mg/kg-day	Liver	1000/1	IRIS	3/27/08
	Subchronic	2.0E-02	mg/kg-day	N/A	2.0E-02	mg/kg-day	Reproductive	3000	NCEA	3/28/1996
4,4'-DDD	Chronic	NA			NA					
	Subchronic	NA			NA					
Dieldrin	Chronic	5.0E-05	mg/kg-day	generally > 50%	5.0E-05	mg/kg-day	Liver	100/1	IRIS	3/27/2008
	Subchronic	5.0E-05	mg/kg-day	generally > 50%	5.0E-05	mg/kg-day	Liver	100	HEAST	7/1/1997
Heptachlor	Chronic	5.0E-04	mg/kg-day	generally > 50%	5.0E-04	mg/kg-day	Liver	300/1	IRIS	3/27/2008
	Subchronic	NA			NA					
Heptachlor epoxide	Chronic	1.3E-05	mg/kg-day	generally > 50%	1.3E-05	mg/kg-day	Liver	1000/1	IRIS	4/1/2008
	Subchronic	1.3E-05	mg/kg-day	generally > 50%	1.3E-05	mg/kg-day	Liver	1000	HEAST	7/1/1997
alpha-BHC	Chronic	NA			NA					
	Subchronic	NA			NA					
beta-BHC	Chronic	NA			NA					
	Subchronic	NA			NA					
4-Nitrotoluene	Chronic	1.0E-02	mg/kg-day	generally > 50%	1.0E-02	mg/kg-day	Spleen	10000	HEAST	7/1/1997
	Subchronic	1.0E-01	mg/kg-day	generally > 50%	1.0E-01	mg/kg-day	Spleen	1000	HEAST	7/1/1997
Aluminum	Chronic	1.0E+00	mg/kg-day	N/A	1.0E+00	mg/kg-day	Developmental, Neurological	100	PPRTV	10/23/2006
	Subchronic	NA			NA					
Arsenic	Chronic	3.0E-04	mg/kg-day	95%	3.0E-04	mg/kg-day	Skin, Vascular	3/1	IRIS	3/27/08
	Subchronic	3.0E-04	mg/kg-day	95%	3.0E-04	mg/kg-day	Skin, Vascular	3	HEAST	7/1/1997
Barium	Chronic	2.0E-01	mg/kg-day	7%	1.4E-02	mg/kg-day	Kidney	300/1	IRIS	4/1/2008
	Subchronic	NA			NA					
Chromium (VI)	Chronic	3.0E-03	mg/kg-day	2.5%	7.5E-05	mg/kg-day	Not identified	300/3	IRIS	4/1/2008
	Subchronic	2.0E-02	mg/kg-day	2.5%	5.0E-04	mg/kg-day	Not identified	100	HEAST	7/1/1997
Iron	Chronic	7.0E-01	mg/kg-day	N/A	7.0E-01	mg/kg-day	Gastrointestinal	1.5	PPRTV	9/11/2006
	Subchronic	7.0E-01	mg/kg-day	N/A	7.0E-01	mg/kg-day	Gastrointestinal	1.5	PPRTV	9/11/2006
Manganese (nonfood)	Chronic	2.0E-02	mg/kg-day	4%	8.0E-04	mg/kg-day	Central Nervous System	1	IRIS	3/27/2008
	Subchronic	NA			NA					
Thallium	Chronic	7.0E-05	mg/kg-day	100%	7.0E-05	mg/kg-day	Nervous System, Reproductive System, Skin, Hair	3/1	RBC	10/11/2007
	Subchronic	NA			NA					
Vanadium	Chronic	1.0E-03	mg/kg-day	2.6%	2.6E-05	mg/kg-day	Kidney	300	NCEA	5/1/2000
	Subchronic	7.0E-03	mg/kg-day	2.6%	1.8E-04	mg/kg-day	Lifetime	100	HEAST	7/1/1997

(1) Source: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual, Part E, Supplemental Guidance for Dermal Risk Assessment (FiN/AI).
Section 4.2 and Exhibit 4-1. USEPA recommends that the oral RfD should not be adjusted to estimate the absorbed dose for compounds when the absorption efficiency is greater than 50%.
Constituents that do not have oral absorption efficiencies reported on this table were assumed to have an oral absorption efficiency of 100%.

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)

(2) Adjusted Dermal RfD = RfD (oral) x Absorption Efficiency or ABS_{GI}

(3) For IRIS values, the date IRIS was searched.

For HEAST values, the date of HEAST.

For NCEA values, the date of the NCEA article.

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

N/A = Not Applicable

NCEA = N/AtioN/Al Center for Environmental Assessment

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
SWMU 475, Camp Lejeune, North Carolina

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD (1)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ	Dates (2) (MM/DD/YY)
Chloroform	Chronic	4.9E-02	mg/m^3	1.4E-02	mg/kg-day	Liver	NA	NCEA	1/22/2003
	Subchronic	4.9E-02	mg/m^3	1.4E-02	mg/kg-day	Liver	NA	NCEA	1/22/2003
bis(2-Ethylhexyl)phthalate	Chronic	NA							
	Subchronic	NA							
4,4'-DDD	Chronic	NA							
	Subchronic	NA							
Dieldrin	Chronic	NA							
	Subchronic	NA							
Heptachlor	Chronic	NA							
	Subchronic	NA							
Heptachlor epoxide	Chronic	NA							
	Subchronic	NA							
alpha-BHC	Chronic	NA							
	Subchronic	NA							
beta-BHC	Chronic	NA							
	Subchronic	NA							
4-Nitrotoluene	Chronic	NA							
	Subchronic	NA							
Aluminum	Chronic	3.5E-03	mg/m^3	1.0E-03	mg/kg-day	Neurological	300	PPRTV	10/23/2006
	Subchronic	N/A							
Arsenic	Chronic	NA							
	Subchronic	NA							
Barium	Chronic	4.9E-04	mg/m^3	1.4E-04	mg/kg-day	Fetotoxicity	1000	HEAST- Alt	7/1/1997
	Subchronic	5.0E-03	mg/m^3	1.4E-03	mg/kg-day	Fetotoxicity	100	HEAST	7/1/1997
Chromium (VI)	Chronic	1.0E-04	mg/m^3	3.0E-05	mg/kg-day	Respiratory System	300/1	IRIS	4/1/2008
	Subchronic	NA	NA	NA	NA	NA	NA	NA	NA
Iron	Chronic	NA							
	Subchronic	NA							
Manganese	Chronic	5.0E-05	mg/m^3	1.4E-05	mg/kg-day	Central Nervous System	1000/1	IRIS	3/27/2008
	Subchronic	N/A							
Thallium	Chronic	NA							
	Subchronic	NA							
Vanadium	Chronic	NA							
	Subchronic	NA							

N/A = Not Applicable

(1) Provide equation used for derivation in text.

(2) For IRIS values, the date IRIS was searched.
For HEAST values, the date of HEAST.
For NCEA values, the date of the article provided by NCEA.

IRIS = Integrated Risk Information System
HEAST= Health Effects Assessment Summary Tables
NCEA = National Center for Environmental Assessment

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	EPA Carcinogen Group	Source	Date (2) (MM/DD/YY)
Chloroform	NA		NA				
bis(2-Ethylhexyl)phthalate	1.4E-02	Generally > 50%	1.4E-02	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	3/27/2008
4,4'-DDD	2.4E-01	Generally > 50%	2.4E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	3/27/2008
Dieldrin	1.6E+01	Generally > 50%	1.6E+01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	3/27/2008
Heptachlor	4.5E+00	Generally > 50%	4.5E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	3/27/2008
Heptachlor epoxide	9.1E+00	Generally > 50%	9.1E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	4/1/2008
alpha-BHC	6.3E+00	Generally > 50%	6.3E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	3/27/2008
beta-BHC	1.8E+00	Generally > 50%	1.8E+00	$(mg/kg\text{-}day)^{-1}$	C	IRIS	3/27/2008
4-Nitrotoluene	NA		NA				
Aluminum	NA		NA				
Arsenic	1.5E+00	95%	1.5E+00	$(mg/kg\text{-}day)^{-1}$	A	IRIS	3/27/2008
Barium	NA		NA				
Chromium (VI)	NA		NA		D	IRIS	3/27/2008
Iron	NA		NA				
Manganese (nonfood)	NA		NA				
Thallium	NA		NA				
Vanadium	NA		NA				

NA-Not available

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

PPRTV = Provisional Peer-Reviewed Toxicity Value

EPA Carcinogen Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

(1) Refer to RAGS, Part E. July 2004.

(2) For IRIS values, provide the date IRIS was searched.
For HEAST values, provide the date of HEAST.
For NCEA values, provide article date provided by NCEA.
For RBC values, provide the date of last change in the Tables.

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Unit Risk	Units	Adjustment (1)	Inhalation Cancer Slope Factor	Units	Weight of Evidence/ Cancer Guidance Description	Source	Date (2) (MM/DD/YY)
Chloroform	2.3E-05	(ug/m3) -1	3500	8.1E-02	(mg/kg-day) $^{-1}$	B2	IRIS	04/01/08
bis(2-Ethylhexyl)phthalate)	NA							
4,4'-DDD	NA							
Dieldrin	4.6E-03	(ug/m3) -1	3500	1.6E+01	(mg/kg-day) $^{-1}$	B2	IRIS	3/27/2008
Heptachlor	1.3E-03	(ug/m3) -1	3500	4.5E+00	(mg/kg-day) $^{-1}$	B2	IRIS	3/27/2008
Heptachlor epoxide	2.6E-03	(ug/m3) -1	3500	9.1E+00	(mg/kg-day) $^{-1}$	B2	IRIS	4/1/2008
alpha-BHC	1.8E-03	(ug/m3) -1	3500	6.3E+00	(mg/kg-day) $^{-1}$	B2	IRIS	3/27/2008
beta-BHC	5.3E-04	(ug/m3) -1	3500	1.8E+00	(mg/kg-day) $^{-1}$	C	IRIS	3/27/2008
4-Nitrotoluene	NA							
Aluminum	NA							
Antimony	NA							
Arsenic	4.0E-03	(ug/m3) -1	3500	1.5E+01	(mg/kg-day) $^{-1}$	A	IRIS	3/27/2008
Barium	NA							
Chromium (VI)	1.2E-02	(ug/m3) -1	3500	4.1E+01	(mg/kg-day) $^{-1}$	A	IRIS	4/1/2008
Iron	NA							
Manganese	NA							
Thallium	NA							
Vanadium	NA							

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

PPRTV = Provisional Peer-Reviewed Toxicity Value

NA = Not Available

(1) Adjustment Factor applied to Unit Risk to calculate Inhalation Slope Factor = 70kg x 1/20m3/day x 1000ug/mg

(2) For IRIS values, provide the date IRIS was searched.
For HEAST values, provide the date of HEAST.
For NCEA values, provide the date of the article provided by NCEA.
For RBC values, provide the date of last change in the Tables.

EPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	UXO-04 Surface Water	Ingestion	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	4.7E-07	mg/kg/day	1.4E-02	1/mg/kg-day	6.5E-09	1.4E-06	mg/kg/day	2.0E-02	mg/kg/day	6.8E-05
				4,4'-DDD	1.0E-02	mg/kg	7.9E-10	mg/kg/day	2.4E-01	1/mg/kg-day	1.9E-10	2.3E-09	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	1.9E-09	mg/kg/day	1.6E+01	1/mg/kg-day	3.1E-08	5.7E-09	mg/kg/day	5.0E-05	mg/kg/day	1.1E-04
				Heptachlor	9.7E-03	mg/kg	7.6E-10	mg/kg/day	4.5E+00	1/mg/kg-day	3.4E-09	2.2E-09	mg/kg/day	5.0E-04	mg/kg/day	4.5E-06
				alpha-BHC	6.4E-03	mg/kg	5.0E-10	mg/kg/day	6.3E+00	1/mg/kg-day	3.2E-09	1.5E-09	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	6.7E-10	mg/kg/day	1.8E+00	1/mg/kg-day	1.2E-09	2.0E-09	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	2.8E-04	mg/kg/day	NA		NA	8.2E-04	mg/kg/day	1.0E+00	mg/kg/day	8.2E-04
				Arsenic	1.1E+01	mg/kg	8.6E-07	mg/kg/day	1.5E+00	1/mg/kg-day	1.3E-06	2.5E-06	mg/kg/day	3.0E-04	mg/kg/day	8.4E-03
				Iron	2.2E+03	mg/kg	1.8E-04	mg/kg/day	NA		NA	5.1E-04	mg/kg/day	7.0E-01	mg/kg/day	7.3E-04
				Manganese	5.2E+01	mg/kg	4.1E-06	mg/kg/day	NA		NA	1.2E-05	mg/kg/day	2.0E-02	mg/kg/day	6.0E-04
				Thallium	1.6E+00	mg/kg	1.3E-07	mg/kg/day	NA		NA	3.7E-07	mg/kg/day	7.0E-05	mg/kg/day	5.3E-03
				Vanadium	1.0E+01	mg/kg	8.0E-07	mg/kg/day	NA		NA	2.3E-06	mg/kg/day	1.0E-03	mg/kg/day	2.3E-03
			Exp. Route Total								1.3E-06					1.8E-02
			Dermal	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	2.5E-06	mg/kg/day	1.4E-02	1/mg/kg-day	3.5E-08	7.3E-06	mg/kg/day	2.0E-02	mg/kg/day	3.6E-04
				4,4'-DDD	1.0E-02	mg/kg	1.8E-07	mg/kg/day	2.4E-01	1/mg/kg-day	4.3E-08	5.2E-07	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	4.4E-08	mg/kg/day	1.6E+01	1/mg/kg-day	7.0E-07	1.3E-07	mg/kg/day	5.0E-05	mg/kg/day	2.6E-03
				Heptachlor	9.7E-03	mg/kg	1.2E-08	mg/kg/day	4.5E+00	1/mg/kg-day	5.3E-08	3.4E-08	mg/kg/day	5.0E-04	mg/kg/day	6.9E-05
				alpha-BHC	6.4E-03	mg/kg	6.6E-09	mg/kg/day	6.3E+00	1/mg/kg-day	4.1E-08	1.9E-08	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	8.7E-09	mg/kg/day	1.8E+00	1/mg/kg-day	1.6E-08	2.5E-08	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	1.0E-04	mg/kg/day	NA		NA	2.9E-04	mg/kg/day	1.0E+00	mg/kg/day	2.9E-04
				Arsenic	1.1E+01	mg/kg	3.1E-07	mg/kg/day	1.5E+00	1/mg/kg-day	4.7E-07	9.1E-07	mg/kg/day	3.0E-04	mg/kg/day	3.0E-03
				Iron	2.2E+03	mg/kg	6.3E-05	mg/kg/day	NA		NA	1.8E-04	mg/kg/day	7.0E-01	mg/kg/day	2.6E-04
				Manganese	5.2E+01	mg/kg	1.5E-06	mg/kg/day	NA		NA	4.3E-06	mg/kg/day	8.0E-04	mg/kg/day	5.4E-03
				Thallium	1.6E+00	mg/kg	4.6E-08	mg/kg/day	NA		NA	1.3E-07	mg/kg/day	7.0E-05	mg/kg/day	1.9E-03
				Vanadium	1.0E+01	mg/kg	2.9E-07	mg/kg/day	NA		NA	8.4E-07	mg/kg/day	2.6E-05	mg/kg/day	3.2E-02
			Exp. Route Total								1.4E-06					4.6E-02
		Exposure Point Total									2.7E-06					6.5E-02
	Exposure Medium Total										2.7E-06					6.5E-02
Surface Water Total											2.7E-06					6.5E-02
										Total of Receptor Risks Across All Media	2.7E-06				Total of Receptor Hazards Across All Media	6.5E-02

Calculation of DAevent
Recreational Adult and Youth - Surface Water
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient[1] (Kp) (cm/hr)	B[1] (dimensionless)	Lag Time[1] (τ_{event}) (hr)	t*[1] (hr)	Fraction Absorbed Water[1] (FA) (dimensionless)	Duration of Event (tevent) (hr)	DAevent (mg/cm^2-event)	Eq
bis(2-Ethylhexyl)phthalate	5.9E+00	2.5E-02	8.6E+00	1.9E-01	4.0E+01	8.0E-01	2.6	2.3E-07	2
4,4'-DDD	1.0E-02	1.8E-01	1.2E+00	6.7E+00	2.6E+01	8.0E-01	2.6	1.7E-08	2
Dieldrin	2.5E-02	1.2E-02	9.2E-02	1.5E+01	3.5E+01	8.0E-01	2.6	4.0E-09	2
Heptachlor	9.7E-03	8.6E-03	6.4E-03	1.3E+01	3.2E+01	8.0E-01	2.6	1.1E-09	2
alpha-BHC[2]	6.4E-03	1.1E-02	7.1E-02	4.6E+00	1.1E+01	9.0E-01	2.6	6.0E-10	2
beta-BHC[2]	8.5E-03	1.1E-02	7.1E-02	4.6E+00	1.1E+01	9.0E-01	2.6	8.0E-10	2
Aluminum	3.6E+03	1.0E-03	NA	NA	NA	NA	2.6	9.3E-06	1
Arsenic	1.1E+01	1.0E-03	NA	NA	NA	NA	2.6	2.9E-08	1
Iron	2.2E+03	1.0E-03	NA	NA	NA	NA	2.6	5.8E-06	1
Manganese	5.2E+01	1.0E-03	NA	NA	NA	NA	2.6	1.4E-07	1
Thallium	1.6E+00	1.0E-03	NA	NA	NA	NA	2.6	4.2E-09	1
Vanadium	1.0E+01	1.0E-03	NA	NA	NA	NA	2.6	2.6E-08	1

Inorganics: DAevent (mg/cm2-event) =
Kp x CW x tevent x 0.001 mg/ug x 0.001 l/cm^3 (eq 1)

Organics: DAevent (mg/cm2-event) =
If t_{event} < t* then

$$DA_{event} = 2 \times FA \times K_p \times C_w \times 0.001 \quad mg/ug \times 0.001 \quad l/cm^3 \sqrt{\frac{6 \times \tau_{event} \times t_{event}}{\pi}} \qquad \text{(eq 2)}$$

If t_{event} > t* then

$$DA_{event} = FA \times K_p \times C_w \times 0.001 \quad mg/ug \times 0.001 \quad l/cm^3 \left[\frac{t_{event}}{1+B} + 2 \times \tau_{event} \left(\frac{1+3B+3B^2}{(1+B)^2} \right) \right] \qquad \text{(eq 3)}$$

Notes:
[1] Values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.
[2] Used physical chemical parameters for Lindane (gamma-BHC) as a surrogate.
NA - not applicable.

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Youth

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	UXO-04 Surface Water	Ingestion	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	3.0E-07	mg/kg/day	1.4E-02	1/mg/kg-day	4.2E-09	2.1E-06	mg/kg/day	2.0E-02	mg/kg/day	1.1E-04
				4,4'-DDD	1.0E-02	mg/kg	5.1E-10	mg/kg/day	2.4E-01	1/mg/kg-day	1.2E-10	3.6E-09	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	1.3E-09	mg/kg/day	1.6E+01	1/mg/kg-day	2.0E-08	8.8E-09	mg/kg/day	5.0E-05	mg/kg/day	1.8E-04
				Heptachlor	9.7E-03	mg/kg	5.0E-10	mg/kg/day	4.5E+00	1/mg/kg-day	2.2E-09	3.5E-09	mg/kg/day	5.0E-04	mg/kg/day	6.9E-06
				alpha-BHC	6.4E-03	mg/kg	3.3E-10	mg/kg/day	6.3E+00	1/mg/kg-day	2.1E-09	2.3E-09	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	4.3E-10	mg/kg/day	1.8E+00	1/mg/kg-day	7.8E-10	3.0E-09	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	1.8E-04	mg/kg/day	NA		NA	1.3E-03	mg/kg/day	1.0E+00	mg/kg/day	1.3E-03
				Arsenic	1.1E+01	mg/kg	5.6E-07	mg/kg/day	1.5E+00	1/mg/kg-day	8.4E-07	3.9E-06	mg/kg/day	3.0E-04	mg/kg/day	1.3E-02
				Iron	2.2E+03	mg/kg	1.1E-04	mg/kg/day	NA		NA	7.9E-04	mg/kg/day	7.0E-01	mg/kg/day	1.1E-03
				Manganese	5.2E+01	mg/kg	2.6E-06	mg/kg/day	NA		NA	1.9E-05	mg/kg/day	2.0E-02	mg/kg/day	9.3E-04
				Thallium	1.6E+00	mg/kg	8.3E-08	mg/kg/day	NA		NA	5.8E-07	mg/kg/day	7.0E-05	mg/kg/day	8.3E-03
				Vanadium	1.0E+01	mg/kg	5.2E-07	mg/kg/day	NA		NA	3.6E-06	mg/kg/day	1.0E-03	mg/kg/day	3.6E-03
			Exp. Route Total								8.7E-07					2.9E-02
			Dermal	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	1.2E-06	mg/kg/day	1.4E-02	1/mg/kg-day	1.7E-08	8.3E-06	mg/kg/day	2.0E-02	mg/kg/day	4.2E-04
				4,4'-DDD	1.0E-02	mg/kg	8.6E-08	mg/kg/day	2.4E-01	1/mg/kg-day	2.1E-08	6.0E-07	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	2.1E-08	mg/kg/day	1.6E+01	1/mg/kg-day	3.3E-07	1.5E-07	mg/kg/day	5.0E-05	mg/kg/day	2.9E-03
				Heptachlor	9.7E-03	mg/kg	5.6E-09	mg/kg/day	4.5E+00	1/mg/kg-day	2.5E-08	3.9E-08	mg/kg/day	5.0E-04	mg/kg/day	7.9E-05
				alpha-BHC	6.4E-03	mg/kg	3.1E-09	mg/kg/day	6.3E+00	1/mg/kg-day	2.0E-08	2.2E-08	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	4.2E-09	mg/kg/day	1.8E+00	1/mg/kg-day	7.5E-09	2.9E-08	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	4.8E-05	mg/kg/day	NA		NA	3.4E-04	mg/kg/day	1.0E+00	mg/kg/day	3.4E-04
				Arsenic	1.1E+01	mg/kg	1.5E-07	mg/kg/day	1.5E+00	1/mg/kg-day	2.2E-07	1.0E-06	mg/kg/day	3.0E-04	mg/kg/day	3.4E-03
				Iron	2.2E+03	mg/kg	3.0E-05	mg/kg/day	NA		NA	2.1E-04	mg/kg/day	7.0E-01	mg/kg/day	3.0E-04
				Manganese	5.2E+01	mg/kg	7.0E-07	mg/kg/day	NA		NA	4.9E-06	mg/kg/day	8.0E-04	mg/kg/day	6.1E-03
				Thallium	1.6E+00	mg/kg	2.2E-08	mg/kg/day	NA		NA	1.5E-07	mg/kg/day	7.0E-05	mg/kg/day	2.2E-03
				Vanadium	1.0E+01	mg/kg	1.4E-07	mg/kg/day	NA		NA	9.6E-07	mg/kg/day	2.6E-05	mg/kg/day	3.7E-02
			Exp. Route Total								6.5E-07					5.3E-02
		Exposure Point Total									1.5E-06					8.1E-02
	Exposure Medium Total										1.5E-06					8.1E-02
Surface Water Total											1.5E-06					8.1E-02
										Total of Receptor Risks Across All Media	1.5E-06			Total of Receptor Hazards Across All Media		8.1E-02

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	UXO-04 Surface Water	Ingestion	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	5.4E-07	mg/kg/day	1.4E-02	1/mg/kg-day	7.6E-09	6.3E-06	mg/kg/day	2.0E-02	mg/kg/day	3.2E-04
				4,4'-DDD	1.0E-02	mg/kg	9.2E-10	mg/kg/day	2.4E-01	1/mg/kg-day	2.2E-10	1.1E-08	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	2.3E-09	mg/kg/day	1.6E+01	1/mg/kg-day	3.6E-08	2.6E-08	mg/kg/day	5.0E-05	mg/kg/day	5.3E-04
				Heptachlor	9.7E-03	mg/kg	8.9E-10	mg/kg/day	4.5E+00	1/mg/kg-day	4.0E-09	1.0E-08	mg/kg/day	5.0E-04	mg/kg/day	2.1E-05
				alpha-BHC	6.4E-03	mg/kg	5.9E-10	mg/kg/day	6.3E+00	1/mg/kg-day	3.7E-09	6.8E-09	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	7.8E-10	mg/kg/day	1.8E+00	1/mg/kg-day	1.4E-09	9.1E-09	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	3.3E-04	mg/kg/day	NA		NA	3.8E-03	mg/kg/day	1.0E+00	mg/kg/day	3.8E-03
				Arsenic	1.1E+01	mg/kg	1.0E-06	mg/kg/day	1.5E+00	1/mg/kg-day	1.5E-06	1.2E-05	mg/kg/day	3.0E-04	mg/kg/day	3.9E-02
				Iron	2.2E+03	mg/kg	2.0E-04	mg/kg/day	NA		NA	2.4E-03	mg/kg/day	7.0E-01	mg/kg/day	3.4E-03
				Manganese	5.2E+01	mg/kg	4.8E-06	mg/kg/day	NA		NA	5.6E-05	mg/kg/day	2.0E-02	mg/kg/day	2.8E-03
				Thallium	1.6E+00	mg/kg	1.5E-07	mg/kg/day	NA		NA	1.7E-06	mg/kg/day	7.0E-05	mg/kg/day	2.5E-02
				Vanadium	1.0E+01	mg/kg	9.3E-07	mg/kg/day	NA		NA	1.1E-05	mg/kg/day	1.0E-03	mg/kg/day	1.1E-02
			Exp. Route Total								1.6E-06					8.6E-02
			Dermal	bis(2-Ethylhexyl)phthalate	5.9E+00	mg/kg	1.1E-06	mg/kg/day	1.4E-02	1/mg/kg-day	1.5E-08	1.2E-05	mg/kg/day	2.0E-02	mg/kg/day	6.2E-04
				4,4'-DDD	1.0E-02	mg/kg	7.7E-08	mg/kg/day	2.4E-01	1/mg/kg-day	1.8E-08	9.0E-07	mg/kg/day	NA		NA
				Dieldrin	2.5E-02	mg/kg	1.9E-08	mg/kg/day	1.6E+01	1/mg/kg-day	3.0E-07	2.2E-07	mg/kg/day	5.0E-05	mg/kg/day	4.4E-03
				Heptachlor	9.7E-03	mg/kg	5.1E-09	mg/kg/day	4.5E+00	1/mg/kg-day	2.3E-08	5.9E-08	mg/kg/day	5.0E-04	mg/kg/day	1.2E-04
				alpha-BHC	6.4E-03	mg/kg	2.8E-09	mg/kg/day	6.3E+00	1/mg/kg-day	1.8E-08	3.3E-08	mg/kg/day	NA		NA
				beta-BHC	8.5E-03	mg/kg	3.7E-09	mg/kg/day	1.8E+00	1/mg/kg-day	6.7E-09	4.4E-08	mg/kg/day	NA		NA
				Aluminum	3.6E+03	mg/kg	4.3E-05	mg/kg/day	NA		NA	5.0E-04	mg/kg/day	1.0E+00	mg/kg/day	5.0E-04
				Arsenic	1.1E+01	mg/kg	1.3E-07	mg/kg/day	1.5E+00	1/mg/kg-day	2.0E-07	1.6E-06	mg/kg/day	3.0E-04	mg/kg/day	5.2E-03
				Iron	2.2E+03	mg/kg	2.7E-05	mg/kg/day	NA		NA	3.1E-04	mg/kg/day	7.0E-01	mg/kg/day	4.5E-04
				Manganese	5.2E+01	mg/kg	6.3E-07	mg/kg/day	NA		NA	7.3E-06	mg/kg/day	8.0E-04	mg/kg/day	9.2E-03
				Thallium	1.6E+00	mg/kg	2.0E-08	mg/kg/day	NA		NA	2.3E-07	mg/kg/day	7.0E-05	mg/kg/day	3.3E-03
				Vanadium	1.0E+01	mg/kg	1.2E-07	mg/kg/day	NA		NA	1.4E-06	mg/kg/day	2.6E-05	mg/kg/day	5.5E-02
			Exp. Route Total								5.8E-07					7.9E-02
		Exposure Point Total									2.1E-06					1.6E-01
	Exposure Medium Total										2.1E-06					1.6E-01
Surface Water Total											2.1E-06					1.6E-01
										Total of Receptor Risks Across All Media	2.1E-06				Total of Receptor Hazards Across All Media	1.6E-01

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	Tap Water	Ingestion	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	7.3E-05	mg/kg/day	1.0E-02	mg/kg/day	7.3E-03
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	1.4E-04	mg/kg/day	2.0E-02	mg/kg/day	6.8E-03
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	1.0E-06	mg/kg/day	1.3E-05	mg/kg/day	8.0E-02
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	6.6E-06	mg/kg/day	1.0E-02	mg/kg/day	6.6E-04
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	2.4E-03	mg/kg/day	2.0E-01	mg/kg/day	1.2E-02
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	4.9E-04	mg/kg/day	3.0E-03	mg/kg/day	1.6E-01
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	2.6E-05	mg/kg/day	7.0E-05	mg/kg/day	3.7E-01
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	7.0E-05	mg/kg/day	1.0E-03	mg/kg/day	7.0E-02
			Exp. Route Total								0.0E+00					7.1E-01
Groundwater	Groundwater	Tap Water	Dermal	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	6.6E-06	mg/kg/day	1.0E-02	mg/kg/day	6.6E-04
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	2.1E-04	mg/kg/day	2.0E-02	mg/kg/day	1.1E-02
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	4.9E-07	mg/kg/day	1.3E-05	mg/kg/day	3.8E-02
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	1.3E-06	mg/kg/day	1.0E-02	mg/kg/day	1.3E-04
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	1.3E-05	mg/kg/day	1.4E-02	mg/kg/day	9.1E-04
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	5.1E-06	mg/kg/day	7.5E-05	mg/kg/day	6.8E-02
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	1.3E-07	mg/kg/day	7.0E-05	mg/kg/day	1.9E-03
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	3.7E-07	mg/kg/day	2.6E-05	mg/kg/day	1.4E-02
			Exp. Route Total								0.0E+00					1.3E-01
		Exposure Point Total									0.0E+00					8.4E-01
	Exposure Medium Total										0.0E+00					8.4E-01
Groundwater	Air	Shower	Inhalation	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	4.3E-05	mg/kg/day	1.4E-02	mg/kg/day	3.0E-03
			Exp. Route Total								0.0E+00					3.0E-03
	Exposure Medium Total										0.0E+00					3.0E-03
Groundwater Total											0.0E+00					8.4E-01
										Total of Receptor Risks Across All Media	0.0E+00				Total of Receptor Hazards Across All Media	8.4E-01

Notes-

NA = Not applicable.

DAevent for dermal exposure to groundwater calculated on Table 7.4.RME Supplement A.

Inhalation exposure calculated on Table 7.4.RME Supplement C.

Table 7.4.RME Supplement A
Calculation of DAevent
Resident Adult Ground Water
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (Kp) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (tevent) (hr)	DAevent (mg/cm²-event)	Eq
Chloroform	2.7E+00	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	0.58	2.7E-08	2
bis(2-Ethylhexyl)phthalate	5.0E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	0.58	8.6E-07	2
Heptachlor epoxide	3.8E-02	8.6E-03	6.4E-02	1.3E+01	3.2E+01	8.0E-01	0.58	2.0E-09	2
4-Nitrotoluene	2.4E-01	1.3E-02	6.0E-02	6.2E-01	1.5E+00	1.0E+00	0.58	5.3E-09	2
Barium	8.9E+01	1.0E-03	NA	NA	NA	NA	0.58	5.2E-08	1
Chromium	1.8E+01	2.0E-03	NA	NA	NA	NA	0.58	2.1E-08	1
Thallium	9.4E-01	1.0E-03	NA	NA	NA	NA	0.58	5.4E-10	1
Vanadium	2.6E+00	1.0E-03	NA	NA	NA	NA	0.58	1.5E-09	1

Inorganics: DAevent (mg/cm2-event) =
Kp x CW x tevent x 0.001 mg/ug x 0.001 l/cm³ (eq 1)

Organics: DAevent (mg/cm2-event) =
If tevent<t*, then DAevent =
2 x FA x Kp x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/ug x 0.001 l/cm^3 (eq 2)

If tevent>t*, then DAevent =
FA x Kp x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/ug x 0.001 l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

Table 7.4.RME Supplement B
Calculation of DAevent
Groundwater
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical	**MW[2]**	**Kp[2] (cm/hr)**	**B[1]**	**lsc (cm)**	**Dsc[1] (cm^2/hr)**	**τ_{event}[1] (hr)**	**c[1]**	**b[1]**	**t*[1] (hr)**
4-Nitrotoluene	137.1	1.3E-02	6.0E-02	1.0E-03	2.7E-07	6.2E-01	3.7E-01	3.4E-01	1.5E+00

1. Equations from *Dermal Exposure Assessment: Principles and Applications* . EPA/600/8-91/011B. January 1992.
2. Values from The Risk Assessment Information System Website, http://rais.ornl.gov/cgi-bin/tox/TOX_select?select=cst

Table 7.4.RME Supplement C
Inhalation Exposure Concentrations from Foster and Chrostowski Shower Model
Adult Resident
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical	Exposure Point Concentration Cwo (µg/l)	Molecular weight (HH) (g/mole)	Henry's Law Constant (H) (atm-m^3/mole)	Kg (VOC) (cm/hr)	Kl(VOC) (cm/hr)	KL (cm/hr)	Kal (cm/hr)	Cwd (µg/l)	S (µg/m^3 -min)	Calculated Inhalation Exposure (Einh) (mg/kg/shower)
Chloroform	2.7E+00	1.2E+02	3.7E-03	1.2E+03	1.2E+01	1.1E+01	1.5E+01	3.2E-01	2.7E-01	4.5E-05

Variables	Units	Exposure Assumptions
Kg(VOC) = gas-film mass transfer coefficient	cm/hr	Solved by Eq 1
Kl(VOC) = liquid-film mass transfer coefficient	cm/hr	Solved by Eq 2
KL = overall mass transfer coefficient	cm/hr	Solved by Eq 3
Kal = adjusted overall mass transfer coeff.	cm/hr	Solved by Eq 4
Tl = Calibration temp. of water	K (20C +273)	293
Ts = Shower water temperature	k (45C)	318
Us = water viscosity at Ts	centipoise	0.596
Ul = water viscosity at Tl	cp	1.002
Cwd = conc. leaving droplets after time sdt	µg/l	Solved by Eq 5
sdt = shower droplet drop time	sec	0.5
d = shower droplet diameter	mm	1
FR = shower water flow rate	l/min	10
SV = shower room air volume	m^3	12
S = indoor VOC generation rate	µg/m^3-min	Solved by Eq 6
VR = ventilation rate	l/min	13.8

Table 7.4.RME Supplement C

Inhalation Exposure Concentrations from Foster and Chrostowski Shower Model

Adult Resident

UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Variables	Units	Exposure Assumptions
BW = body weight	kg	70
Ds = duration of shower	min	34.8
Dt = total duration in shower room	min	45
R = air exchange rate	min^{-1}	0.0083
Ca = indoor air concentration of VOCs	$\mu g/m^3$	Solved by Eq 7
Einh = inhalation exposure per shower	mg/kg/shower	Solved by Eq 8

Equation 1:	Kg(VOC) =	$3000 * (18 / HH)^{0.5}$
Equation 2:	Kl(VOC) =	$20 * (44 / HH)^{0.5}$
Equation 3:	KL =	$((1 / Kl(VOC)) + (0.024 / (Kg (VOC) * H)))^{-1}$
Equation 4:	Kal =	$(KL * (((Tl * Us) / (Ts * Ul))^{-0.5}))$
Equation 5:	Cwd =	(Cwo * (1-EXP((-1 * Kal * sdt)/(60 * d))))
Equation 6:	S =	(Cwd * FR / SV)
Equation 7:	see time series example on Table I-GW-5	
Equation 8:	Einh =	If t>Ds (((VR * S) / (BW * R * 1000000)) * ((Ds + (EXP(-R * Dt) / R)-(EXP(R * (Ds - Dt))) / R)))

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	Tap Water	Ingestion	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	3.4E-04	mg/kg/day	1.0E-02	mg/kg/day	3.4E-02
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	6.4E-04	mg/kg/day	2.0E-02	mg/kg/day	3.2E-02
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	4.8E-06	mg/kg/day	1.3E-05	mg/kg/day	3.7E-01
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	3.1E-05	mg/kg/day	1.0E-02	mg/kg/day	3.1E-03
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	1.1E-02	mg/kg/day	2.0E-01	mg/kg/day	5.7E-02
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	2.3E-03	mg/kg/day	3.0E-03	mg/kg/day	7.6E-01
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	1.2E-04	mg/kg/day	7.0E-05	mg/kg/day	1.7E+00
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	3.3E-04	mg/kg/day	1.0E-03	mg/kg/day	3.3E-01
			Exp. Route Total								0.0E+00					3.3E+00
Groundwater	Groundwater	Tap Water	Dermal	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	1.5E-05	mg/kg/day	1.0E-02	mg/kg/day	1.5E-03
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	4.8E-04	mg/kg/day	2.0E-02	mg/kg/day	2.4E-02
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	1.1E-06	mg/kg/day	1.3E-05	mg/kg/day	8.5E-02
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	2.9E-06	mg/kg/day	1.0E-02	mg/kg/day	2.9E-04
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	3.8E-05	mg/kg/day	1.4E-02	mg/kg/day	2.7E-03
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	1.5E-05	mg/kg/day	7.5E-05	mg/kg/day	2.0E-01
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	4.0E-07	mg/kg/day	7.0E-05	mg/kg/day	5.6E-03
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	1.1E-06	mg/kg/day	2.6E-05	mg/kg/day	4.1E-02
			Exp. Route Total								0.0E+00					3.6E-01
		Exposure Point Total									0.0E+00					3.7E+00
	Exposure Medium Total										0.0E+00					3.7E+00
Groundwater	Air	Shower	Inhalation	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	2.2E-04	mg/kg/day	1.4E-02	mg/kg/day	1.6E-02
			Exp. Route Total								0.0E+00					1.6E-02
	Exposure Medium Total										0.0E+00					1.6E-02
Groundwater Total											0.0E+00					3.7E+00
										Total of Receptor Risks Across All Media	0.0E+00				Total of Receptor Hazards Across All Media	3.7E+00

Notes-

NA = Not applicable.

DAevent for dermal exposure to groundwater calculated on Table 7.5.RME Supplement A.

Inhalation exposure calculated on Table 7.5.RME Supplement B.

Table 7.5.RME Supplement A
Calculation of DAevent
Resident Child Ground Water
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Water Concentration (CW) (μg/L)	Permeability Coefficient (Kp) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (tevent) (hr)	DAevent (mg/cm^2-event)	Eq
Chloroform	2.7E+00	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	1	3.5E-08	2
bis(2-Ethylhexyl)phthalate	5.0E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	1	1.1E-06	2
Heptachlor epoxide	3.8E-02	8.6E-03	6.4E-02	1.3E+01	3.2E+01	8.0E-01	1	2.6E-09	2
4-Nitrotoluene	2.4E-01	1.3E-02	6.0E-02	6.2E-01	1.5E+00	1.0E+00	1	7.0E-09	2
Barium	8.9E+01	1.0E-03	NA	NA	NA	NA	1	8.9E-08	1
Chromium	1.8E+01	2.0E-03	NA	NA	NA	NA	1	3.6E-08	1
Thallium	9.4E-01	1.0E-03	NA	NA	NA	NA	1	9.4E-10	1
Vanadium	2.6E+00	1.0E-03	NA	NA	NA	NA	1	2.6E-09	1

Inorganics: DAevent (mg/cm2-event) =
Kp x CW x tevent x 0.001 mg/ug x 0.001 l/cm^3 (eq 1)

Organics: DAevent (mg/cm2-event) =
If tevent<t*, then DAevent =
2 x FA x Kp x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/ug x 0.001 l/cm^3 (eq 2)

If tevent>t*, then DAevent =
FA x Kp x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/ug x 0.001 l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

Table 7.5.RME Supplement B
Inhalation Exposure Concentrations from Foster and Chrostowski Shower Model
Child Resident
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical	Exposure Point Concentration Cwo (µg/l)	Molecular weight (HH) (g/mole)	Henry's Law Constant (H) (atm-m^3/mole)	Kg (VOC) (cm/hr)	Kl(VOC) (cm/hr)	KL (cm/hr)	Kal (cm/hr)	Cwd (µg/l)	S (µg/m^3 -min)	Calculated Inhalation Exposure (Einh) (mg/kg/shower)
Chloroform	2.7E+00	1.2E+02	3.7E-03	1.2E+03	1.2E+01	1.1E+01	1.5E+01	3.2E-01	2.7E-01	2.3E-04

Variables	Units	Exposure Assumptions
Kg(VOC) = gas-film mass transfer coefficient	cm/hr	Solved by Eq 1
Kl(VOC) = liquid-film mass transfer coefficient	cm/hr	Solved by Eq 2
KL = overall mass transfer coefficient	cm/hr	Solved by Eq 3
Kal = adjusted overall mass transfer coeff.	cm/hr	Solved by Eq 4
Tl = Calibration temp. of water	K (20C +273)	293
Ts = Shower water temperature	k (45C)	318
Us = water viscosity at Ts	centipoise	0.596
Ul = water viscosity at Tl	cp	1.002
Cwd = conc. leaving droplets after time sdt	µg/l	Solved by Eq 5
sdt = shower droplet drop time	sec	0.5
d = shower droplet diameter	mm	1
FR = shower water flow rate	l/min	10
SV = shower room air volume	m^3	12
S = indoor VOC generation rate	µg/m^3-min	Solved by Eq 6
VR = ventilation rate	l/min	6.5

Variables	Units	Exposure Assumptions
BW = body weight	kg	15
Ds = duration of shower	min	60
Dt = total duration in shower room	min	70
R = air exchange rate	min^{-1}	0.0083
Ca = indoor air concentration of VOCs	µg/m^3	Solved by Eq 7
Einh = inhalation exposure per shower	mg/kg/shower	Solved by Eq 8

Equation 1:	Kg(VOC) =	$3000 * (18 / HH)^{0.5}$	
Equation 2:	Kl(VOC) =	$20 * (44 / HH)^{0.5}$	
Equation 3:	KL =	$((1 / Kl(VOC)) + (0.024 / (Kg (VOC) * H)))^{-1}$	
Equation 4:	Kal =	$(KL * (((Tl * Us) / (Ts * Ul))^{-0.5}))$	
Equation 5:	Cwd =	(Cwo * (1-EXP((-1 * Kal * sdt)/(60 * d))))	
Equation 6:	S =	(Cwd * FR / SV)	
Equation 7:	see time series example on Table I-GW-5		
Equation 8:	Einh =	If t>Ds	(((VR * S) / (BW * R * 1000000)) * ((Ds + (EXP(-R * Dt) / R)-(EXP(R * (Ds - Dt))) / R)))

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	Tap Water	Ingestion	Chloroform	2.7E+00	µg/L	4.0E-05	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	7.5E-05	mg/kg/day	1.4E-02	mg/kg/day	1.0E-06	NA	NA	NA	NA	NA
				Heptachlor epoxide	3.8E-02	µg/L	5.6E-07	mg/kg/day	9.1E+00	mg/kg/day	5.1E-06	NA	NA	NA	NA	NA
				4-Nitrotoluene	2.4E-01	µg/L	3.6E-06	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Barium	8.9E+01	µg/L	1.3E-03	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Chromium	1.8E+01	µg/L	2.7E-04	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Thallium	9.4E-01	µg/L	1.4E-05	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Vanadium	2.6E+00	µg/L	3.8E-05	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
			Exp. Route Total								6.2E-06					0.0E+00
Groundwater	Groundwater	Tap Water	Dermal	Chloroform	2.7E+00	µg/L	3.6E-06	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	1.1E-04	mg/kg/day	1.4E-02	mg/kg/day	1.6E-06	NA	NA	NA	NA	NA
				Heptachlor epoxide	3.8E-02	µg/L	2.6E-07	mg/kg/day	9.1E+00	mg/kg/day	2.4E-06	NA	NA	NA	NA	NA
				4-Nitrotoluene	2.4E-01	µg/L	7.0E-07	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Barium	8.9E+01	µg/L	7.6E-06	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Chromium	1.8E+01	µg/L	3.1E-06	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Thallium	9.4E-01	µg/L	8.0E-08	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
				Vanadium	2.6E+00	µg/L	2.2E-07	mg/kg/day	NA		NA	NA	NA	NA	NA	NA
			Exp. Route Total								4.0E-06					0.0E+00
		Exposure Point Total									1.0E-05					0.0E+00
	Exposure Medium Total										1.0E-05					0.0E+00
Groundwater	Air	Shower	Inhalation	Chloroform	2.7E+00	µg/L	3.4E-05	mg/kg/day	8.1E-02	mg/kg/day	2.7E-06	NA	NA	NA	NA	NA
			Exp. Route Total								2.7E-06					0.0E+00
	Exposure Medium Total										2.7E-06					0.0E+00
Groundwater Total											1.3E-05					0.0E+00
										Total of Receptor Risks Across All Media	1.3E-05				Total of Receptor Hazards Across All Media	0.0E+00

Notes-

NA = Not applicable.

DAevent for dermal exposure to groundwater calculated on Tables 7.4.RME Supplement A and 7.5.RME Supplement A.

Inhalation exposures calculated on Tables 7.4.RME Supplement C and 7.5.RME Supplement B.

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	Excavation Pit	Dermal	Chloroform	2.7E+00	µg/L	3.7E-09	mg/kg/day	NA		NA	2.6E-07	mg/kg/day	1.0E-02	mg/kg/day	2.6E-05
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	9.4E-08	mg/kg/day	1.4E-02	mg/kg/day	1.3E-09	6.6E-06	mg/kg/day	2.0E-02		3.3E-04
				Heptachlor epoxide	3.8E-02	µg/L	2.2E-10	mg/kg/day	9.1E+00	mg/kg/day	2.0E-09	1.5E-08	mg/kg/day	1.3E-05	mg/kg/day	1.2E-03
				4-Nitrotoluene	2.4E-01	µg/L	6.8E-10	mg/kg/day	NA		NA	4.8E-08	mg/kg/day	1.0E-01	mg/kg/day	4.8E-07
				Barium	8.9E+01	µg/L	1.5E-08	mg/kg/day	NA		NA	1.0E-06	mg/kg/day	1.4E-02	mg/kg/day	7.5E-05
				Chromium	1.8E+01	µg/L	6.0E-09	mg/kg/day	NA		NA	4.2E-07	mg/kg/day	5.0E-04	mg/kg/day	8.4E-04
				Thallium	9.4E-01	µg/L	1.6E-10	mg/kg/day	NA		NA	1.1E-08	mg/kg/day	7.0E-05	mg/kg/day	1.6E-04
				Vanadium	2.6E+00	µg/L	4.3E-10	mg/kg/day	NA		NA	3.0E-08	mg/kg/day	1.8E-04	mg/kg/day	1.6E-04
			Exp. Route Total								3.3E-09					2.8E-03
		Exposure Point Total									3.3E-09					2.8E-03
	Exposure Medium Total										3.3E-09					2.8E-03
Groundwater	Air	Excavation Pit	Inhalation	Chloroform	7.0E-03	mg/m^3	1.2E-06	mg/kg/day	8.1E-02	mg/kg/day	9.4E-08	8.2E-05	mg/kg/day	1.4E-02	mg/kg/day	5.8E-03
			Exp. Route Total								9.4E-08					5.8E-03
	Exposure Medium Total										9.4E-08					5.8E-03
Surficial Groundwater Total											9.7E-08					8.6E-03
									Total of Receptor Risks Across All Media		9.7E-08			Total of Receptor Hazards Across All Media		8.6E-03

Notes-

NA = Not applicable.

DAevent for dermal exposure to groundwater calculated on Tables 7.7.RME Supplements A and B

Inhalation exposure calculated on Table 7.7.RME Supplement C.

Table 7.7.RME Supplement A
Calculation of DAevent
Construction Worker Ground Water
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (Kp) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (tevent) (hr)	DAevent (mg/cm²-event)	Eq
Chloroform	2.7E+00	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	4	8.9E-08	3
bis(2-Ethylhexyl)phthalate	5.0E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	4	2.3E-06	2
Heptachlor epoxide	3.8E-02	8.6E-03	6.4E-02	1.3E+01	3.2E+01	8.0E-01	4	5.2E-09	2
4-Nitrotoluene	2.4E-01	1.3E-02	6.0E-02	6.2E-01	1.5E+00	1.0E+00	4	1.6E-08	3
Barium	8.9E+01	1.0E-03	NA	NA	NA	NA	4	3.6E-07	1
Chromium	1.8E+01	2.0E-03	NA	NA	NA	NA	4	1.4E-07	1
Thallium	9.4E-01	1.0E-03	NA	NA	NA	NA	4	3.7E-09	1
Vanadium	2.6E+00	1.0E-03	NA	NA	NA	NA	4	1.0E-08	1

Inorganics: DAevent (mg/cm2-event) =
Kp x CW x tevent x 0.001 mg/ug x 0.001 l/cm^3 (eq 1)

Organics: DAevent (mg/cm2-event) =
If tevent<t*, then DAevent =
2 x FA x Kp x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/ug x 0.001 l/cm^3 (eq 2)

If tevent>t*, then DAevent =
FA x Kp x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/ug x 0.001 l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this documen
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

Table 7.7.RME Supplement B
Inhalation of Volatiles from Groundwater During Construction
Calculation of Air Concentration following ASTM Standard for Risk-Based Corrective Action
Construction Worker Senario, Groundwater
OU1, MCAS Cherry Point

Chemical	Cw (mg/L)	Diffusivity in Air (cm^2/s)	Diffusivity in Water (cm^2/s)	K_H (unitless)	D^{eff}_{cap} (cm^2/s)	D^{eff} (cm^2/s)	DF_{amb} (cm/s)	$VF_{gw,amb}$ (L/m^3)	Ca (mg/m^3)
Chloroform	2.7E+00	1.0E-01	1.0E-05	1.5E-01	2.6E-05	2.6E-05	1.5E+01	2.6E-03	7.0E-03

Equations

Equation 1 $VF_{gw,amb} = 1/((DF_{amb} * L_{GW} / D_{eff}) * (1/K_H)) * 10^3\ L/m^3$

Equation 2 $DF_{amb} = (U_{air} * W * d_{air})/A$

Equation 3 $D^{eff} = L_{gw}/((h_v/D^{eff}_s) + (h_{cap}/D^{eff}_{cap}))$

Equation 4 $D^{eff}_{cap} = (D^{air} * \Theta^{3.33}_{acap}/\Theta^2_T) + (D^{wat} * 1/K_H * \Theta^{3.33}_{wcap}/\Theta^2_T)$

Variables	Units	Exposure Assumptions	Source
$VF_{gw,amb}$ = volatilzation factor for groundwater	(L/m^3)	Solved by Eq 1	
K_H - Henry's Law Constant	(unitless)	chem-specific	
L_{GW} = depth to groundwater, $h_v + h_{cap}$	(cm)	0.1	
h_v = thickness of vadose zone	(cm)	0	
h_{cap} = thickness of capillary fringe	(cm)	0.1	
D^{eff} = effective diffusion coefficient between groundwater and surface soil	(cm^2/s)	Solved by Eq 3	
DF_{amb} = dispersion factor for outdoor air	(cm/s)	Solved by Eq 2	
U_{air} = wind speed above ground surface in mixing zone	(cm/s)	340	site-specific
d_{air} = ambiend air mixing zone	(cm)	200	default
W = width of source parallel to groundwater flow direction	(cm)	4,500	default
A = source-zone area	(cm^2)	20,250,000	default
D^{eff}_{cap} = effecitve diffusion through capillary fringe	(cm^2/s)	Solved by Eq 4	
D^{eff}_s = effecitve diffusion in soil based on vapor-phase concentration	(cm^2/s)	chem-specific	
D^{air} = diffusion coefficent in air	(cm^2/s)	chem-specific	
D^{wat} = diffusion coefficent in water	(cm^2/s)	chem-specific	
Θ_{acap} = volumetric air content in capillary fringe soils	(cm^3-air/cm^3-soil)	0.038	default
Θ_{wcap} = volumetric water content in capillary fringe soils	(cm^3-H_2O/cm^3-soil)	0.342	default
Θ_T = total soil porosity	(cm^3-H_2O/cm^3-soil)	0.38	default
Cw = groundwater concentration	(mg/L)	chem-specific	

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	Tap Water	Ingestion	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	1.1E-04	mg/kg/day	1.0E-02	mg/kg/day	1.1E-02
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	2.1E-04	mg/kg/day	2.0E-02	mg/kg/day	1.1E-02
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	1.6E-06	mg/kg/day	1.3E-05	mg/kg/day	1.2E-01
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	1.0E-05	mg/kg/day	1.0E-02	mg/kg/day	1.0E-03
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	3.8E-03	mg/kg/day	2.0E-01	mg/kg/day	1.9E-02
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	7.7E-04	mg/kg/day	3.0E-03	mg/kg/day	2.6E-01
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	4.0E-05	mg/kg/day	7.0E-05	mg/kg/day	5.7E-01
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	1.1E-04	mg/kg/day	1.0E-03	mg/kg/day	1.1E-01
			Exp. Route Total								0.0E+00					1.1E+00
Groundwater	Groundwater	Tap Water	Dermal	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	5.7E-06	mg/kg/day	1.0E-02	mg/kg/day	5.7E-04
				bis(2-Ethylhexyl)phthalate	5.0E+00	µg/L	NA	NA	NA	NA	NA	1.8E-04	mg/kg/day	2.0E-02	mg/kg/day	9.1E-03
				Heptachlor epoxide	3.8E-02	µg/L	NA	NA	NA	NA	NA	4.2E-07	mg/kg/day	1.3E-05	mg/kg/day	3.3E-02
				4-Nitrotoluene	2.4E-01	µg/L	NA	NA	NA	NA	NA	1.1E-06	mg/kg/day	1.0E-02	mg/kg/day	1.1E-04
				Barium	8.9E+01	µg/L	NA	NA	NA	NA	NA	8.3E-06	mg/kg/day	1.4E-02	mg/kg/day	5.9E-04
				Chromium	1.8E+01	µg/L	NA	NA	NA	NA	NA	3.3E-06	mg/kg/day	7.5E-05	mg/kg/day	4.4E-02
				Thallium	9.4E-01	µg/L	NA	NA	NA	NA	NA	8.7E-08	mg/kg/day	7.0E-05	mg/kg/day	1.2E-03
				Vanadium	2.6E+00	µg/L	NA	NA	NA	NA	NA	2.4E-07	mg/kg/day	2.6E-05	mg/kg/day	9.1E-03
			Exp. Route Total								0.0E+00					9.8E-02
		Exposure Point Total									0.0E+00					1.2E+00
	Exposure Medium Total										0.0E+00					1.2E+00
Groundwater	Air	Shower	Inhalation	Chloroform	2.7E+00	µg/L	NA	NA	NA	NA	NA	4.0E-05	mg/kg/day	1.4E-02	mg/kg/day	2.9E-03
			Exp. Route Total								0.0E+00					2.9E-03
	Exposure Medium Total										0.0E+00					2.9E-03
Groundwater Total											0.0E+00					1.2E+00
										Total of Receptor Risks Across All Media	0.0E+00				Total of Receptor Hazards Across All Media	1.2E+00

Notes-

NA = Not applicable.

DAevent for dermal exposure to groundwater calculated on Table 7.5.RME Supplement A.

Inhalation exposure calculated on Table 7.5.RME Supplement B.

Table 7.2.CTE Supplement A
Calculation of DAevent
Resident Child Ground Water
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical of Potential Concern	Water Concentration (CW) (μg/L)	Permeability Coefficient (Kp) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (tevent) (hr)	DAevent (mg/cm^2-event)	Eq
Chloroform	2.7E+00	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	0.33	2.0E-08	2
bis(2-Ethylhexyl)phthalate	5.0E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	0.33	6.5E-07	2
Heptachlor epoxide	3.8E-02	8.6E-03	6.4E-02	1.3E+01	3.2E+01	8.0E-01	0.33	1.5E-09	2
4-Nitrotoluene	2.4E-01	1.3E-02	6.0E-02	6.2E-01	1.5E+00	1.0E+00	0.33	4.0E-09	2
Barium	8.9E+01	1.0E-03	NA	NA	NA	NA	0.33	2.9E-08	1
Chromium	1.8E+01	2.0E-03	NA	NA	NA	NA	0.33	1.2E-08	1
Thallium	9.4E-01	1.0E-03	NA	NA	NA	NA	0.33	3.1E-10	1
Vanadium	2.6E+00	1.0E-03	NA	NA	NA	NA	0.33	8.4E-10	1

Inorganics: DAevent (mg/cm2-event) =
Kp x CW x tevent x 0.001 mg/ug x 0.001 l/cm^3 (eq 1)

Organics: DAevent (mg/cm2-event) =
If tevent<t*, then DAevent =
2 x FA x Kp x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/ug x 0.001 l/cm^3 (eq 2)

If tevent>t*, then DAevent =
FA x Kp x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/ug x 0.001 l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

Table 7.2.CTE Supplement B
Inhalation Exposure Concentrations from Foster and Chrostowski Shower Model
Child Resident
UXO-04 Knox Trailer Park, MCB Camp Lejeune, North Carolina

Chemical	Exposure Point Concentration Cwo (µg/l)	Molecular weight (HH) (g/mole)	Henry's Law Constant (H) (atm-m^3/mole)	Kg (VOC) (cm/hr)	Kl(VOC) (cm/hr)	KL (cm/hr)	Kal (cm/hr)	Cwd (µg/l)	S (µg/m^3 -min)	Calculated Inhalation Exposure (Einh) (mg/kg/shower)
Chloroform	2.7E+00	1.2E+02	3.7E-03	1.2E+03	1.2E+01	1.1E+01	1.5E+01	3.2E-01	2.7E-01	4.2E-05

Variables	Units	Exposure Assumptions
Kg(VOC) = gas-film mass transfer coefficient	cm/hr	Solved by Eq 1
Kl(VOC) = liquid-film mass transfer coefficient	cm/hr	Solved by Eq 2
KL = overall mass transfer coefficient	cm/hr	Solved by Eq 3
Kal = adjusted overall mass transfer coeff.	cm/hr	Solved by Eq 4
Tl = Calibration temp. of water	K (20C +273)	293
Ts = Shower water temperature	k (45C)	318
Us = water viscosity at Ts	centipoise	0.596
Ul = water viscosity at Tl	cp	1.002
Cwd = conc. leaving droplets after time sdt	µg/l	Solved by Eq 5
sdt = shower droplet drop time	sec	0.5
d = shower droplet diameter	mm	1
FR = shower water flow rate	l/min	10
SV = shower room air volume	m^3	12
S = indoor VOC generation rate	µg/m^3-min	Solved by Eq 6
VR = ventilation rate	l/min	6.5

Variables	Units	Exposure Assumptions
BW = body weight	kg	15
Ds = duration of shower	min	19.8
Dt = total duration in shower room	min	30
R = air exchange rate	min^{-1}	0.0083
Ca = indoor air concentration of VOCs	µg/m^3	Solved by Eq 7
Einh = inhalation exposure per shower	mg/kg/shower	Solved by Eq 8

Equation 1:	Kg(VOC) =	$3000 * (18 / HH)^{0.5}$	
Equation 2:	Kl(VOC) =	$20 * (44 / HH)^{0.5}$	
Equation 3:	KL =	$((1 / Kl(VOC)) + (0.024 / (Kg (VOC) * H)))^{-1}$	
Equation 4:	Kal =	$(KL * (((Tl * Us) / (Ts * Ul))^{-0.5}))$	
Equation 5:	Cwd =	(Cwo * (1-EXP((-1 * Kal * sdt)/(60 * d))))	
Equation 6:	S =	(Cwd * FR / SV)	
Equation 7:	see time series example on Table I-GW-5		
Equation 8:	Einh =	If t>Ds	(((VR * S) / (BW * R * 1000000)) * ((Ds + (EXP(-R * Dt) / R)-(EXP(R * (Ds - Dt))) / R)))

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	UXO-04 Surface Water										
			bis(2-Ethylhexyl)phthalate	6.5E-09	N/A	3.5E-08	4.2E-08	Liver	6.8E-05	N/A	3.6E-04	4.3E-04
			4,4'-DDD	1.9E-10	N/A	4.3E-08	4.3E-08		NA	N/A	NA	0.0E+00
			Dieldrin	3.1E-08	N/A	7.0E-07	7.3E-07	Liver	1.1E-04	N/A	2.6E-03	2.7E-03
			Heptachlor	3.4E-09	N/A	5.3E-08	5.7E-08	Liver	4.5E-06	N/A	6.9E-05	7.3E-05
			alpha-BHC	3.2E-09	N/A	4.1E-08	4.5E-08		NA	N/A	NA	0.0E+00
			beta-BHC	1.2E-09	N/A	1.6E-08	1.7E-08		NA	N/A	NA	0.0E+00
			Aluminum	NA	N/A	NA	0.0E+00	Developmental, Neurological	8.2E-04	N/A	2.9E-04	1.1E-03
			Arsenic	1.3E-06	N/A	4.7E-07	1.8E-06	Skin, Vascular	8.4E-03	N/A	3.0E-03	1.1E-02
			Iron	NA	N/A	NA	0.0E+00	Gastrointestinal	7.3E-04	N/A	2.6E-04	9.9E-04
			Manganese	NA	N/A	NA	0.0E+00	Central Nervous System	6.0E-04	N/A	5.4E-03	6.0E-03
			Thallium	NA	N/A	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	5.3E-03	N/A	1.9E-03	7.3E-03
			Vanadium	NA	N/A	NA	0.0E+00	Kidney	2.3E-03	N/A	3.2E-02	3.5E-02
			Chemical Total	1.3E-06	N/A	1.4E-06	2.7E-06		1.8E-02	N/A	4.6E-02	6.5E-02
		Exposure Point Total					2.7E-06					6.5E-02
	Exposure Medium Total						2.7E-06					6.5E-02
Medium Total							2.7E-06					6.5E-02
Receptor Total							2.7E-06				Receptor HI Total	6.5E-02

Total Liver HI Across All Media =	3.2E-03
Total Developmental HI Across All Media =	1.1E-03
Total Neurological HI Across All Media =	1.4E-02
Total Skin HI Across All Media =	1.9E-02
Total Vascular HI Across All Media =	1.1E-02
Total Gastrointestinal HI Across All Media =	9.9E-04
Total Reproductive HI Across All Media =	7.3E-03
Total Hair HI Across All Media =	7.3E-03
Total Kidney HI Across All Media =	3.5E-02

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Youth

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	UXO-04 Surface Water										
			bis(2-Ethylhexyl)phthalate	4.2E-09	N/A	1.7E-08	2.1E-08	Liver	1.1E-04	N/A	4.2E-04	5.2E-04
			4,4'-DDD	1.2E-10	N/A	2.1E-08	2.1E-08		NA	N/A	NA	0.0E+00
			Dieldrin	2.0E-08	N/A	3.3E-07	3.5E-07	Liver	1.8E-04	N/A	2.9E-03	3.1E-03
			Heptachlor	2.2E-09	N/A	2.5E-08	2.7E-08	Liver	6.9E-06	N/A	7.9E-05	8.6E-05
			alpha-BHC	2.1E-09	N/A	2.0E-08	2.2E-08		NA	N/A	NA	0.0E+00
			beta-BHC	7.8E-10	N/A	7.5E-09	8.3E-09		NA	N/A	NA	0.0E+00
			Aluminum	NA	N/A	NA	0.0E+00	Developmental, Neurological	1.3E-03	N/A	3.4E-04	1.6E-03
			Arsenic	8.4E-07	N/A	2.2E-07	1.1E-06	Skin, Vascular	1.3E-02	N/A	3.4E-03	1.7E-02
			Iron	NA	N/A	NA	0.0E+00	Gastrointestinal	1.1E-03	N/A	3.0E-04	1.4E-03
			Manganese	NA	N/A	NA	0.0E+00	Central Nervous System	9.3E-04	N/A	6.1E-03	7.0E-03
			Thallium	NA	N/A	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	8.3E-03	N/A	2.2E-03	1.1E-02
			Vanadium	NA	N/A	NA	0.0E+00	Kidney	3.6E-03	N/A	3.7E-02	4.0E-02
			Chemical Total	8.7E-07	N/A	6.5E-07	1.5E-06		2.9E-02	N/A	5.3E-02	8.1E-02
		Exposure Point Total					1.5E-06					8.1E-02
	Exposure Medium Total						1.5E-06					8.1E-02
Medium Total							1.5E-06					8.1E-02
Receptor Total							1.5E-06				Receptor HI Total	8.1E-02

Total Liver HI Across All Media =	3.7E-03
Total Developmental HI Across All Media =	1.6E-03
Total Neurological HI Across All Media =	1.9E-02
Total Skin HI Across All Media =	2.7E-02
Total Vascular HI Across All Media =	1.7E-02
Total Gastrointestinal HI Across All Media =	1.4E-03
Total Reproductive HI Across All Media =	1.1E-02
Total Hair HI Across All Media =	1.1E-02
Total Kidney HI Across All Media =	4.0E-02

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	UXO-04 Surface Water										
			bis(2-Ethylhexyl)phthalate	7.6E-09	N/A	1.5E-08	2.3E-08	Liver	3.2E-04	N/A	6.2E-04	9.4E-04
			4,4'-DDD	2.2E-10	N/A	1.8E-08	1.9E-08		NA	N/A	NA	0.0E+00
			Dieldrin	3.6E-08	N/A	3.0E-07	3.4E-07	Liver	5.3E-04	N/A	4.4E-03	4.9E-03
			Heptachlor	4.0E-09	N/A	2.3E-08	2.7E-08	Liver	2.1E-05	N/A	1.2E-04	1.4E-04
			alpha-BHC	3.7E-09	N/A	1.8E-08	2.1E-08		NA	N/A	NA	0.0E+00
			beta-BHC	1.4E-09	N/A	6.7E-09	8.1E-09		NA	N/A	NA	0.0E+00
			Aluminum	NA	N/A	NA	0.0E+00	Developmental, Neurological	3.8E-03	N/A	5.0E-04	4.3E-03
			Arsenic	1.5E-06	N/A	2.0E-07	1.7E-06	Skin, Vascular	3.9E-02	N/A	5.2E-03	4.4E-02
			Iron	NA	N/A	NA	0.0E+00	Gastrointestinal	3.4E-03	N/A	4.5E-04	3.9E-03
			Manganese	NA	N/A	NA	0.0E+00	Central Nervous System	2.8E-03	N/A	9.2E-03	1.2E-02
			Thallium	NA	N/A	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	2.5E-02	N/A	3.3E-03	2.8E-02
			Vanadium	NA	N/A	NA	0.0E+00	Kidney	1.1E-02	N/A	5.5E-02	6.6E-02
			Chemical Total	1.6E-06	N/A	5.8E-07	2.1E-06		8.6E-02	N/A	7.9E-02	1.6E-01
		Exposure Point Total					2.1E-06					1.6E-01
	Exposure Medium Total						2.1E-06					1.6E-01
Medium Total							2.1E-06					1.6E-01
Receptor Total							2.1E-06	Receptor HI Total				1.6E-01

Total Liver HI Across All Media =	6.0E-03
Total Developmental HI Across All Media =	4.3E-03
Total Neurological HI Across All Media =	4.4E-02
Total Skin HI Across All Media =	7.3E-02
Total Vascular HI Across All Media =	4.4E-02
Total Gastrointestinal HI Across All Media =	3.9E-03
Total Reproductive HI Across All Media =	2.8E-02
Total Hair HI Across All Media =	2.8E-02
Total Kidney HI Across All Media =	6.6E-02

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	Tap Water	Chloroform	NA	NA	NA	0.0E+00	Liver	7.3E-03	NA	6.6E-04	8.0E-03
			bis(2-Ethylhexyl)phthalate	NA	NA	NA	0.0E+00	Liver	6.8E-03	NA	1.1E-02	1.7E-02
			Heptachlor epoxide	NA	NA	NA	0.0E+00	Liver	8.0E-02	NA	3.8E-02	1.2E-01
			4-Nitrotoluene	NA	NA	NA	0.0E+00	Spleen	6.6E-04	NA	1.3E-04	7.9E-04
			Barium	NA	NA	NA	0.0E+00	Kidney	1.2E-02	NA	9.1E-04	1.3E-02
			Chromium	NA	NA	NA	0.0E+00	Not identified	1.6E-01	NA	6.8E-02	2.3E-01
			Thallium	NA	NA	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	3.7E-01	NA	1.9E-03	3.7E-01
			Vanadium	NA	NA	NA	0.0E+00	Kidney	7.0E-02	NA	1.4E-02	8.4E-02
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		7.1E-01	0.0E+00	1.3E-01	8.4E-01
		Exposure Point Total					0.0E+00					8.4E-01
	Exposure Medium Total						0.0E+00					8.4E-01
	Air	Shower	Chloroform	NA	NA	NA	0.0E+00	Liver	NA	3.0E-03	NA	3.0E-03
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	3.0E-03	0.0E+00	3.0E-03
		Exposure Point Total					0.0E+00					3.0E-03
	Exposure Medium Total						0.0E+00					3.0E-03
Medium Total							0.0E+00					8.4E-01
Receptor Total							0.0E+00				Receptor HI Total	8.4E-01

Total Central Nervous System HI Across All Media =	3.7E-01
Total Hair HI Across All Media =	3.7E-01
Total Kidney HI Across All Media =	9.7E-02
Total Liver HI Across All Media =	1.5E-01
Total Reproduction HI Across All Media =	3.7E-01
Total Skin HI Across All Media =	3.7E-01
Total Spleen HI Across All Media =	7.9E-04

HI - Hazard Index

TABLE 9.4.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future

Receptor Population: Resident

Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
UXO-04 Knox Trailer Park
MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	Tap Water	Chloroform	NA	NA	NA	0.0E+00	Liver	3.4E-02	NA	1.5E-03	3.6E-02
			bis(2-Ethylhexyl)phthalate	NA	NA	NA	0.0E+00	Liver	3.2E-02	NA	2.4E-02	5.6E-02
			Heptachlor epoxide	NA	NA	NA	0.0E+00	Liver	3.7E-01	NA	8.5E-02	4.6E-01
			4-Nitrotoluene	NA	NA	NA	0.0E+00	Spleen	3.1E-03	NA	2.9E-04	3.4E-03
			Barium	NA	NA	NA	0.0E+00	Kidney	5.7E-02	NA	2.7E-03	6.0E-02
			Chromium	NA	NA	NA	0.0E+00	Not identified	7.6E-01	NA	2.0E-01	9.6E-01
			Thallium	NA	NA	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	1.7E+00	NA	5.6E-03	1.7E+00
			Vanadium	NA	NA	NA	0.0E+00	Kidney	3.3E-01	NA	4.1E-02	3.7E-01
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		3.3E+00	0.0E+00	3.6E-01	3.7E+00
		Exposure Point Total					0.0E+00					3.7E+00
	Exposure Medium Total						0.0E+00					3.7E+00
	Air	Shower	Chloroform	NA	NA	NA	0.0E+00	Liver	NA	1.6E-02	NA	1.6E-02
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	1.6E-02	0.0E+00	1.6E-02
		Exposure Point Total					0.0E+00					1.6E-02
	Exposure Medium Total						0.0E+00					1.6E-02
Medium Total							0.0E+00					3.7E+00
Receptor Total							0.0E+00				Receptor HI Total	3.7E+00

Total Central Nervous System HI Across All Media =	1.7E+00
Total Hair HI Across All Media =	1.7E+00
Total Kidney HI Across All Media =	4.3E-01
Total Liver HI Across All Media =	5.6E-01
Total Reproduction HI Across All Media =	1.7E+00
Total Skin HI Across All Media =	1.7E+00
Total Spleen HI Across All Media =	3.4E-03

HI - Hazard Index

TABLE 9.5.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future

Receptor Population: Resident

Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

TABLE 9.6.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	Tap Water	Chloroform	NA	NA	NA	0.0E+00	Liver	NA	NA	NA	0.0E+00
			bis(2-Ethylhexyl)phthalate	1.0E-06	NA	1.6E-06	2.6E-06	Liver	NA	NA	NA	0.0E+00
			Heptachlor epoxide	5.1E-06	NA	2.4E-06	7.5E-06	Liver	NA	NA	NA	0.0E+00
			4-Nitrotoluene	NA	NA	NA	0.0E+00	Spleen	NA	NA	NA	0.0E+00
			Barium	NA	NA	NA	0.0E+00	Kidney	NA	NA	NA	0.0E+00
			Chromium	NA	NA	NA	0.0E+00	Not identified	NA	NA	NA	0.0E+00
			Thallium	NA	NA	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	NA	NA	NA	0.0E+00
			Vanadium	NA	NA	NA	0.0E+00	Kidney	NA	NA	NA	0.0E+00
			Chemical Total	6.2E-06	0.0E+00	4.0E-06	1.0E-05		0.0E+00	0.0E+00	0.0E+00	0.0E+00
		Exposure Point Total					1.0E-05					0.0E+00
	Exposure Medium Total						1.0E-05					0.0E+00
	Air	Shower	Chloroform	NA	2.7E-06	NA	2.7E-06	Liver	NA	NA	NA	0.0E+00
			Chemical Total	0.0E+00	2.7E-06	0.0E+00	2.7E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00
		Exposure Point Total					2.7E-06					0.0E+00
	Exposure Medium Total						2.7E-06					0.0E+00
Medium Total							1.3E-05					0.0E+00
Receptor Total							1.3E-05				Receptor HI Total	0.0E+00

HI - Hazard Index

TABLE 9.7.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	Excavation Pit	Chloroform	NA	NA	NA	0.0E+00	Liver	NA	NA	2.6E-05	2.6E-05
			bis(2-Ethylhexyl)phthalate	NA	NA	1.3E-09	1.3E-09	Reproductive	NA	NA	3.3E-04	3.3E-04
			Heptachlor epoxide	NA	NA	2.0E-09	2.0E-09	Liver	NA	NA	1.2E-03	1.2E-03
			4-Nitrotoluene	NA	NA	NA	0.0E+00	Spleen	NA	NA	4.8E-07	4.8E-07
			Barium	NA	NA	NA	0.0E+00	Kidney	NA	NA	7.5E-05	7.5E-05
			Chromium	NA	NA	NA	0.0E+00	Not identified	NA	NA	8.4E-04	8.4E-04
			Thallium	NA	NA	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	NA	NA	1.6E-04	1.6E-04
			Vanadium	NA	NA	NA	0.0E+00	Lifetime	NA	NA	1.6E-04	1.6E-04
			Chemical Total	0.0E+00	0.0E+00	3.3E-09	3.3E-09		0.0E+00	0.0E+00	2.8E-03	2.8E-03
		Exposure Point Total					3.3E-09					2.8E-03
	Exposure Medium Total						3.3E-09					2.8E-03
	Air	Excavation Pit	Chloroform	NA	9.4E-08	NA	9.4E-08	Liver	NA	5.8E-03	NA	5.8E-03
			Chemical Total	0.0E+00	9.4E-08	0.0E+00	9.4E-08		0.0E+00	5.8E-03	0.0E+00	5.8E-03
		Exposure Point Total					9.4E-08					5.8E-03
	Exposure Medium Total						9.4E-08					5.8E-03
Medium Total							9.7E-08					8.6E-03
Receptor Total							9.7E-08				Receptor HI Total	8.6E-03

Total Central Nervous System HI Across All Media =	1.6E-04
Total Hair HI Across All Media =	1.6E-04
Total Kidney HI Across All Media =	7.5E-05
Total Lifetime HI Across All Media =	1.6E-04
Total Liver HI Across All Media =	7.1E-03
Total Reproductive HI Across All Media =	4.9E-04
Total Skin HI Across All Media =	1.6E-04
Total Spleen HI Across All Media =	4.8E-07

HI - Hazard Index

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	Tap Water	Chloroform	NA	NA	NA	0.0E+00	Liver	1.1E-02	NA	5.7E-04	1.2E-02
			bis(2-Ethylhexyl)phthalate	NA	NA	NA	0.0E+00	Liver	1.1E-02	NA	9.1E-03	2.0E-02
			Heptachlor epoxide	NA	NA	NA	0.0E+00	Liver	1.2E-01	NA	3.3E-02	1.6E-01
			4-Nitrotoluene	NA	NA	NA	0.0E+00	Spleen	1.0E-03	NA	1.1E-04	1.1E-03
			Barium	NA	NA	NA	0.0E+00	Kidney	1.9E-02	NA	5.9E-04	2.0E-02
			Chromium	NA	NA	NA	0.0E+00	Not identified	2.6E-01	NA	4.4E-02	3.0E-01
			Thallium	NA	NA	NA	0.0E+00	Nervous System, Reproductive System, Skin, Hair	5.7E-01	NA	1.2E-03	5.7E-01
			Vanadium	NA	NA	NA	0.0E+00	Kidney	1.1E-01	NA	9.1E-03	1.2E-01
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		1.1E+00	0.0E+00	9.8E-02	1.2E+00
		Exposure Point Total					0.0E+00					1.2E+00
	Exposure Medium Total						0.0E+00					1.2E+00
	Air	Shower	Chloroform	NA	NA	NA	0.0E+00	Liver	NA	2.9E-03	NA	2.9E-03
			Chemical Total	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	2.9E-03	0.0E+00	2.9E-03
		Exposure Point Total					0.0E+00					2.9E-03
	Exposure Medium Total						0.0E+00					2.9E-03
Medium Total							0.0E+00					1.2E+00
Receptor Total							0.0E+00				Receptor HI Total	1.2E+00

Total Central Nervous System HI Across All Media =	5.7E-01
Total Hair HI Across All Media =	5.7E-01
Total Kidney HI Across All Media =	1.4E-01
Total Liver HI Across All Media =	1.9E-01
Total Reproduction HI Across All Media =	5.7E-01
Total Skin HI Across All Media =	5.7E-01
Total Spleen HI Across All Media =	1.1E-03

HI - Hazard Index

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

UXO-04 Knox Trailer Park

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Future

Receptor Population: Resident

Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Appendix I
Supporting Information for the Screening Level Ecological Risk Assessment

APPENDIX I-1
CHECKLIST FOR ECOLOGICAL ASSESSMENTS/SAMPLING

I. SITE LOCATION

1. Site Name: United States Marine Corps Base, Camp Lejeune, North Carolina
   US EPA ID Number _____
   Location: Navy Munitions Response Program (MRP) Site UXO-04Site UXO-04, Knox Trailer Park
   County: Onslow City: Camp Lejeune State: North Carolina

2. Latitude_____ Longitude_____

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.

II. SITE CHARACTERIZATION

1. Indicate the approximate area of the site (i.e., acres or sq. ft.) 38 acres

2. Is this the first site visit? ☐ Yes X No
   If no, attach trip report of previous site visit(s), if available.
   This is the first trip to the site by a CH2M HILL ecologist. Site reconnaissance and investigations have been conducted in April of 2006.

   Dates(s) of previous site visit(s)

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.

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

_____% Heavy Industrial	_____% Light Industrial	_____% Urban
_50_% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_____% Undisturbed	__50___% 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.
_The drainage streams and wooded areas leading to and around the southern and eastern creeks are partially disturbed. The understory of the pine woods has been removed surrounding former trailer park area.

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	_____% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	100__% 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? ☐ Yes X 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.

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.* No.

Please provide the source(s) of information used to identify these sensitive areas, and indicate their general location on the site map.

8. What type of facility is located at the site?

☐ Chemical ☐ Manufacturing ☐ Mixing

☐ Waste Disposal X Other (specify) The Knox Trailer Park area began as a Civilian Conservation Corps Camp in 1941. A dog-training school was located in the southernmost area of Knox Trailer Park and operated from 1942 to 1946. During WWII, there was increased research into the use of body armor to protect the troops from serious injury. Testing and development continued at the NMFRL throughout the Korean conflict until the cease fire was called in July 1953 (Montrose, 1955). From the early 1950s until the present time, the area has been used for residential housing.

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).

Direct Push Soil Samples
TCL VOCs by CLP (OLM04) (with Encore samplers provided by lab)
TCL SVOCs by CLP (OLM04)
TCL Pesticides and PCBs by CLP (OLM04)
TAL Metals and Cyanide by CLP (ILM04)
TPH (8015 and 9071)
Total Organic Carbon (415.2/ 9060)
Total Organic Halogens (9020B)
Monitoring Well Groundwater Samples
TCL VOCs by CLP (OLM04) without Encore
TCL SVOCs by CLP (OLM04)
TCL Pesticides and PCBs by CLP (OLM04)
Total TAL Metals and Cyanide by CLP (ILM04)
Filtered TAL Metals by CLP (ILM04)
TPH (8015 and 9071)
Total Dissolved Solids (160.1)
Filtered Total Organic Carbon (415.2/ 9060)
Total Organic Halogens (9020B)

Surface Water
TCL VOCs by CLP (OLM04) without Encore
TCL SVOCs by CLP (OLM04)
TCL Pesticides and PCBs by CLP (OLM04)
Total TAL Metals and Cyanide by CLP (ILM04)
Filtered TAL Metals by CLP (ILM04)
TPH (8015 and 9071)
Total Dissolved Solids (160.1)
Filtered Total Organic Carbon (415.2/ 9060)
Total Organic Halogens (9020B)
Sediment
TCL VOCs by CLP (OLM04) without Encore
TCL SVOCs by CLP (OLM04)
TCL Pesticides and PCBs by CLP (OLM04)
TAL Metals and Cyanide by CLP (ILM04)
TPH (8015 and 9071)
Grain size - sieve and hydrometer (ASTM D422)
Total Dissolved Solids (160.1)
Total Organic Carbon (415.2/ 9060)
Total Organic Halogens (9020B)
IDW Sampling
Full TCLP
RCI

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

☐ Swales ☐ Depressions X Drainage Ditches

X Runoff ☐ Windblown Particulates ☐ Vehicular Traffic

X Other (specify): Northeast Creek and its tributary east of the site and Scales creek west of the site.

11. Indicate the approximate depth to groundwater (in feet below ground surface [(bgs)]. Monitoring well data, from March 2006 and April 2005, indicates that groundwater elevations are between 3.10 feet msl and 11.95 feet msl.

12. Indicate the direction of groundwater flow (e.g., north, southeast, etc.) East to Southeast toward the Northeast Creek and its tributary.

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

☐ Surface water ☐ Groundwater ☐ Sewer

☐ Collection Impoundment

14. Is there a navigable water body or tributary to a navigable water body?
X Yes ☐ No Tributary of Northeast creek, Northeast creek, and Scales creek eventually lead to New River.

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
(approx. distance) Northeast creek borders the site to the south, a tributary to Northeast creek is within 700 feet east, and Scales creek is approximately 1,400 feet west of the site.)

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.) No field guides were used for identifying fauna-the active facility is mostly pavement with buildings. In the wooded areas, fauna identification only took several minutes in most cases because species were common, and easy to identify.

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 April 26, 2006

90° F Temperature (°C/°F)

Wind (direction/speed): No wind

Cloud Cover: Clear 0%

Normal daily high temperature (°C/°F): low 90s

Precipitation (rain, snow): none

20. Describe reasonable and likely future land and/or water use(s) at the site.
Future land use will continue as residential property for multi-family housing.

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.).

The Knox Trailer Park area began as a Civilian Conservation Corps Camp in 1941. Camp personnel assisted with road work, forestry, and other phases of developing the land into a modern military post (Carraway, 1946). Another function of the Civilian Conservation Corps Camp at Camp Lejeune (in conjunction with the Malaria Control Detachment of the Marines) was to eliminate the source of endemic malaria by draining all surrounding wetlands. This was accomplished by ditching, using dynamite, and spraying diesel oil on water surfaces as a larvicide (Kimball, 2005).

A dog-training school was located in the southernmost area of Knox Trailer Park and operated from 1942 to 1946. The dogs were subjected to overhead rifle and machine gun fire and explosions of charges of dynamite and TNT to simulate battlefield conditions (Marine Devil Dogs!, 2005). The dogs and handlers were exposed to explosives typically found in a combat environment on a weekly basis. Explosives used during training included Dago bombs and quarter cans of TNT (Putney, 2001).

During WWII, there was increased research into the use of body armor to protect the troops from serious injury. Most of the testing occurred at the Naval Medical Field Research Laboratory (NMFRL), though some research facilities were located at Camp Knox (now the Knox Trailer Park area). While the specific testing at the Camp Knox research facilities has not been determined, it is known that the body armor was able to resist impact from .22 and .45 caliber automatic pistol bullets and Reising and Thompson sub–machine gun bullets at a distance of 15 ft. In addition, tests showed that the armor stopped all fragments from a detonated hand grenade (TNT-loaded) at a distance of 3 feet (Montrose, 1955). The research facilities at Camp Knox most likely fired ball-type ammunition at the vests. The firing was most likely performed inside buildings (based on historical photographs), and it is not thought that a significant amount of ammunition was expended for testing purposes (Lt. Col. L. Kimball (Ret.), personal communication, August 10, 2005). Testing and development continued at the NMFRL throughout the Korean conflict until the cease fire was called in July 1953 (Montrose, 1955). From the early 1950s until the present time, the area has been used for residential housing.

In the 1974–1976 timeframe, an EOD technician, Mr. Don Cifelli, responded to the discovery of unexploded ordnance (UXO) in the Knox Trailer Park area. A bulldozer operator uncovered a live WWII MK-II high-explosive hand grenade while conducting excavation activities (D. Cifelli, personal communication, March 2005). The safety pin had been removed, the grenade had been thrown, and the striker had impinged the primer without causing the primer to function, thereby rendering the grenade a dud. The exact location of the grenade is not documented, but Mr. Cifelli recalls it being located off the

main road leading to the trailer park (personal communications, August 15 and 18, 2005). Mr. Cifelli also recalls responding to up to three additional discoveries of practice grenades during intrusive activities in the area.

The CH2M HILL 2005 archival records search indicated that Area A essentially surrounded, but did not include, the Knox Trailer Park (U.S. Army Corps of Engineers, 2001). According to base personnel, this area was never a live fire range for grenades or any other munitions (Lowder, 2005). In addition, the consulting historian for the base reported that he has not encountered any documentation that supports the Knox Trailer Park area having been an established range (Lt. Col. L. Kimball, personal communication, August 10, 2005). No previous Navy Installation Restoration Program (IRP) investigations have been conducted at the Knox Trailer Park or the surrounding area (i.e., Site UXO-04).

The discovery of previous grenades, along with interviews from EOD personnel, may contribute to the Knox Trailer Park area's inclusion as a suspected historic hand grenade range [called the Knox Trailer Park Grenade Range (Area A)] in the Draft 2002 Range Inventory Report.

The grenades used in this area were reportedly MK-II and MK-IIA1. According to the specifications, each type had a serrated cast-iron body; the MK-II grenades were equipped with an M204A1 fuze, whereas the MK-IIA1 grenades were equipped with a M10A3 fuze. Specifications state that each unit was filled with 2 oz. of flaked or granular 2,4,6-trinitrotoluene (TNT), though some older units contained E.C. Blank Smokeless Powder (U.S. Army Corp of Engineers, 2001).

A visual inspection of the Knox Trailer Park was conducted in November 2002 by the base's explosive ordnance disposal (EOD) team, and no UXO was discovered (Gunnery Sgt. G. McGurty, personal communication, July 22, 2005).

A former maneuver training area (AD Training Area) is located just north of the Knox Trailer Park. The area was in operation during the 1940s and was administratively closed by the Environmental Management Division of the Marine Corps in January 2004. No further action was determined for the AD Training Area (D. Richardson, personal communication, August 3, 2005; Department of the Navy, 2005). The area was a nonfiring area used for land navigation, patrolling, and field training, and is currently in use by the Marine Corps Combat Service Support School at Camp Johnson (D. Richardson, personal communication, August 3, 2005).

22. Identify the media (e.g., soil [surface or subsurface], surface water, air, groundwater) which are known or suspected to contain COCs.
Soil, groundwater, and surface waters and sediment of the Northeast Creek and the associated adjacent tributaries and ditches have been potentially impacted from COCs at the site.

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.

The maintained grass area around the trailer park plots are likely to constitute complete exposure pathways to terrestrial species frequenting these upland grass areas. The creeks and tributary are surrounded by riparian vegetation and wildlife species that frequent those areas. Therefore, surface waters at the creeks and tributary are likely to constitute complete exposure pathways to aquatic species and terrestrial species frequenting these riparian areas.

Checklist Completed by: Demitria Dickman

Affiliation: CH2M HILL

Author Assisted by: Christopher McCarthy

Date: May 2, 2006

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: Area east, west and south of the former Knox Park trailer park.

1. Estimate the approximate size of the wooded area (_____% _11.5_acres)
   Please identify what information was used to determine the wooded area of the site (e.g., direct observation, photos, etc).

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

   X Evergreen
   ☐ Deciduous
   ☐ Mixed

   Dominant plant species, if known: Loblolly Pine (*Pinus taeda*), Sweetgum (*Liquidambar styraciflua*)

3. Estimate the vegetation density of the wooded area.

   ☐ Dense (i.e., greater than 75% vegetation)
   ☐ Moderate (i.e., 25% to 75% vegetation)
   X 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
   X 6-12 inches
   ☐ >12 inches

- ❑ No single size range is predominant

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

Wooded Area Questions

☐ On-site X Off-site

Name or Designation: Riparian area surrounding Scales Creek and the tributary of Northeast Creek and north and west of the pine woods.

6. Estimate the approximate size of the wooded area (_____% __greater than 50.7__acres) Please identify what information was used to determine the wooded area of the site (e.g., direct observation, photos, etc).

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

   - ☐ Evergreen
   - ❑ Deciduous
   - X Mixed

   Dominant plant species, if known: Loblolly Pine (*Pinus taeda*), Sweetgum (*Liquidambar styraciflua*), Water oak (*quercus nigra*), Easter Red Cedar (*Juniperus virginiana*)

8. 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)

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

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

5. Specify type of understory present, if known. Provide a photograph, if available.
   Herbaceous and woody understory - Poison ivy (*Toxicodendron radicans)*, arrowhead (*Sagittaria spp*.), and Virginia creeper (*Parthenocissus cinquefolia*) are the most prevalent understory species at the site.

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

Shrub/Scrub Area Questions

☐ On-site ☐ Off-site

Name or Designation:_____

1. Estimate the approximate size of the shrub/scrub area (_____% _____acres). Please identify what information was used to determine the shrub/scrub area of the site (e.g., direct observation, photos, etc).

2. Indicate the dominant type of shrub/scrub vegetation present, if known.

3. Estimate the vegetation density of the shrub/scrub area.

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

4. Indicate the approximate average height of the scrub/shrub vegetation.

   - ❑ 0-2 feet
   - ☐ 2-5 feet
   - ❑ >5 feet

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

III.A.3 Open Field

Are any open field areas on or adjacent to the site? X Yes ☐ 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

Open Field Area Questions

X On-site ☐ Off-site

Name or Designation: Central maintained grass area where trailers were once parked.____

1. Estimate the approximate size of the open field area (__3.61 acres (including parking spots and drives). Please identify what information was used to determine the open field area of the site. Aerial photo

2. Indicate the dominant type of vegetation present, if known.
Unidentified maintained grasses and forbs_____
_____
_____

3. Estimate the vegetation density of the shrub/scrub 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 approximate average height of the dominant plant: Less than 12 inches

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.

Miscellaneous Area Questions

☐ On-site ☐ Off-site

Name or Designation:_____

1. Provide a description of the terrestrial miscellaneous habitat and identify the area on the site map.

2. Estimate the approximate size of the area (_____% _____acres)

3. What observations, if any, were made at the site regarding the presence and/or absence of insects, birds, mammals, etc.?

_____
_____
_____
_____

4. Review the questions in Section I to determine if any additional habitat checklists should be completed for this site.

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 × 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

Non-Flowing Aquatic Feature Questions

☐ On-site ☐ Off-site

Name or Designation:_____

1. Indicate the type of aquatic feature present:

   - ❑ Natural (e.g., pond or lake)
   - ❑ Man-made (e.g., impoundment, lagoon, canal, etc.)

2. Estimate the approximate size of the water body (in acres or sq. ft.)_____

3. If known, indicate the depth of the water body (in ft. or in.)._____

4. If a water body is present, what are its known uses (e.g.: recreation, navigation, etc.)?

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

   ☐ Emergent ☐ Submergent ☐ Floating

6. Indicate the general composition of the bottom substrate. Mark all sources that apply from the following list.

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

   ☐ Other (please specify):_____

7. Indicate the source(s) of the water in the aquatic feature. Mark all sources that apply from the following list.

   - ❑ River/Stream/Creek
   - ❑ Groundwater
   - ❑ Industrial Discharge
   - ❑ Surface Runoff
   - ❑ Other (please specify):_____

Non-Flowing Aquatic Feature Questions (Continued)

8. Is there a discharge from the facility to the aquatic feature? ☐ Yes ☐ No
   If yes, describe the origin of each discharge and its migration path.
   _____
   _____
   _____
   _____

9. Does the aquatic feature discharge to the surrounding environment? ☐ Yes ☐ No
   If yes, indicate the features from the following list into which the aquatic feature discharges, and indicate whether the discharge occurs onsite or offsite:

   - ❑ River/Stream/Creek ☐ on-site ☐ off-site
   - ❑ Groundwater ☐ on-site ☐ off-site
   - ❑ Wetland ☐ on-site ☐ off-site
   - ❑ Impoundment ☐ on-site ☐ off-site
   - ❑ Other (please describe)_____

10. 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:

    _____ Area

    _____ Depth (average)

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

    _____ pH

    _____ Dissolved oxygen

    _____ Salinity

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

    _____ Other (specify)

11. Describe observed color and area of coloration.

Non-Flowing Aquatic Feature Questions (Continued)

12. Mark the open-water, non-flowing system on the site map attached to this checklist.

13. What observations, if any, were made at the water body regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, etc?

Flowing Aquatic Systems Questions

X On-site ☐ Off-site

Name or Designation: Surface water drainage in the project vicinity is carried by a dendritic system of small, permanent, and intermittent unnamed streams, with associated floodplains of various widths. These streams flow into Northeast Creek and New River. New River flows into the Atlantic Ocean via New River inlet (MCB Camp Lejeune, July 2002).

1. Indicate the type of flowing aquatic feature present.

   - ☐ River
   - ☐ Stream/Creek/Brook
   - X Intermittent stream
   - ☐ Artificially created (ditch, etc.)
   - ☐ 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	X Sand (course)	☐ Concrete
☐ Boulder (>10 in.)	☐ Silt (fine)	☐ Debris
☐ Cobble (2.5 - 10 in.)	☐ Clay (slick)	☐ Detritus
☐ Gravel (0.1 - 2.5 in.)	☐ Muck (fine/black)	☐ Marl (Shells)

   X Other (please specify): grass

4. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover).
   On the east side of the facility are two intermittent unnamed streams that, when flowing, discharges into the eastern unnamed tributary, which then discharges into the Northeast Creek. A third intermittent unnamed stream that, when flowing, discharges into the Northeast Creek at the south end of the Site. The three onsite intermittent unnamed streams are approximately 3 – 4 feet in depth with a 30 – 45 degree slope. Grasses cover the swale beds and the surrounding areas.

5. Is the system influenced by tides? X Yes ☐ No
   What information was used to make this determination? Topographic map and historical reports

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. Local runoff in the area of each of the three drainage streams flows into the unnamed streams and then to the tributary of Northeast Creek or directly into Northeast Creek.

8. Indicate the discharge point of the water body. Specify name of the discharge, if known. The tributary discharges into Northeast Creek south of the site, which then flows to New River.

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:

1-3	Width (ft.)
0.6foot	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. No water was seen in the unnamed streams at the time of the April 2006 ecologist site visit.

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

    X Emergent Grasses ☐ 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? The ecologist was not permitted to leave the vehicle during the April 2006 site visit due to the site not being cleared by a UXO technician. But a windshield tour was permitted and the photos were taken. For this reason the only unnamed intermittent stream observed was the southern stream flowing east. This

stream did not have water. The banks and bottom were covered with Bermuda grass. Benthic macroinvertebrates, birds and mammals may use the streams for foraging. Fish are not likely to be present.

Flowing Aquatic Systems Questions

X On-site ☐ Off-site

Name or Designation: Northeast Creek and tributary, immediately adjacent to the south end of the Site and east of the site.

14. Indicate the type of flowing aquatic feature present.

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

15. 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.

16. Indicate the general composition of the bottom substrate.

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

☐ Other (please specify):_____

17. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover).
The eastern unnamed tributary discharges into the Northeast Creek. The banks are less that 3 feet deep. The bottom is void of vegetation. The banks are densely vegetated by mixed forest.

18. Is the system influenced by tides? X Yes ☐ No
What information was used to make this determination? Topographic map

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

20. 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. Stormwater flows from the east end of the site toward the unnamed tributary via two intermittent streams. Stormwater from the rest of the site will flow south to southwest into Northeast Creek.

21. Indicate the discharge point of the water body. Specify name of the discharge, if known. Northeast Creek and its tributary discharge into New River approximately 8,000 feet downstream.

22. 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:

>50 ft	Width (ft.)
_____	Depth (average)
_____	Velocity (specify units):_____
__	Temperature (depth of water where the reading was taken)SG03, April 2004
__	pH
_	Dissolved oxygen
_____	Salinity
_____	Turbidity (clear, slightly turbid, turbid, opaque) (Secchi disk depth_____)
___	Other (specify)

23. Describe observed color and area of coloration. Brown.

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

☐ Emergent ☐ Submergent ☐ Floating

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

26. What observations were made at the water body regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, etc? The tributary and Northeast Creek were not walked during the 2006 site visit. The ecologist was not permitted to leave the car.

III.C Wetland Habitats

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

☐ Yes X 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. Field observations.

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

Wetland Area Questions

☐ On-site ☐ Off-site

Name or Designation: _____

Indicate the approximate area of the wetland (acres or ft.^{2}) _____

1. Identify the type(s) of vegetation present in the wetland.

- ❑ Submergent (i.e., underwater) vegetation
- ☐ Emergent (i.e., rooted in the water, but rising above it) vegetation
- ❑ Floating vegetation
- ❑ Scrub/shrub
- ☐ Wooded
- ❑ Other (Please describe):_____

3. Provide a general description of the vegetation present in and around the wetland (height, color, etc). Provide a photograph of the known or suspected wetlands, if available.

4. Estimate the vegetation density of the wetland area.

- ☐ Dense (i.e., greater than 75% vegetation)

[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.

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

5. Is standing water present? ☐ Yes ☐ No
   If yes, is the water primarily: ☐ Fresh ☐ Brackish
   Indicate the approximate area of the standing water (ft.^{2}) _____
   Indicate the approximate depth of the standing water, if known (ft. or in.)

5. 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:

   _____ Area

   _____ Depth (average)

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

   _____ pH

   _____ Dissolved oxygen

   _____ Salinity

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

   _____ Other (specify)

6. Describe observed color and area of coloration.

If known, indicate the source of the water in the wetland.

- ❑ Stream/River/Creek/Lake/Pond
- ❑ Flooding
- ☐ Groundwater
- ☐ Surface runoff

9. Is there a discharge from the site to the wetland? ☐ Yes ☐ No
   If yes, please describe:

10. Is there a discharge from the wetland? ☐ Yes ☐ No
    If yes, to what water body is discharge released?

- ❑ Marine (Name:_____)
- ❑ X Surface stream/River(Name:_____)
- ❑ Lake/Pond (Name:_____)
- ❑ Groundwater
- ☐ Not sure

11. Does the area show evidence of flooding? ☐ Yes ☐ No
If yes, indicate which of the following are present (mark all that apply).

- ☐ Standing water
- ☐ Water-saturated soils
- ☐ Water marks
- ☐ Buttressing
- ☐ Debris lines
- ☐ Mud cracks
- ☐ Other (Please describe):_____

11. If a soil sample was collected, describe the appearance of the soil in the wetland area. Circle or write in the best response.

Color (blue/gray, brown, black, mottled) _____

Water content (dry, wet, saturated/unsaturated)_____

12. Mark the observed wetland area(s) on the attached site map.

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.* No.

National Park Service website confirms the Edwards Creek and New River are not designated as state or federal Wild & Scenic Rivers.
Edwards Creek is not listed as a state-designated area for protection or maintenance of aquatic life on the 305b and 303d Draft 2004 list from the NC Division of Water Quality.
NC Wildlife Resources Commission confirms the Camp Lejeune is not considered part of a state or wildlife refuge.
Bob Barwick the Onslow County biologist of the of NC Wildlife Resources Commission ------.

2. 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.*

[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.

2. Is the site potentially used as a breeding, roosting or feeding area by migratory bird species? If yes, identify which species. No. Bob Barwick, the Onslow County biologist of the NC Wildlife Resources Commission.

5. Is the site used by any ecologically[3], recreationally or commercially important species? If yes, explain. **No**.

IV. EXPOSURE PATHWAY EVALUATION

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

   □ Yes
   ❑ No
   X Uncertain

   Please provide an explanation for your answer. Soil, groundwater, sediment, and surface water samples were collected in 2005-2006 and in 2007. Data has not been collected from the western Scales Creek.

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.

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

   X Yes
   □ No
   ❑ Uncertain

   Please provide an explanation for your answer. Data has been collected from the four runoff migration pathways, soil, sediment and groundwater.

[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).

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. Offsite migration to the Northeast Creek and its tributary, may be occurring. Sediment, surface water, and groundwater data have been collected in the creek to evaluate these pathways. Topography leads the runoff and groundwater to the Northeast Creek and tributary. Offsite migration is not expected cross-gradient.

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 visible indications of stressed habitats or receptors were located on or near the site.

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. Yes, surface sediment and surface water contamination may be in contact with benthic invertebrate and fish and amphibian receptors. Soil contamination may come in contact with soil invertebrates.

7. Are receptors located in or using habitats where chemicals exist in air, soil, sediment or surface water? If yes, explain. Yes, soil, sediment and surface water in the tributary have detectable concentrations of metals, pesticides and SVOCs.

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. Yes, detectable compounds have been found in groundwater discharge at the surface water and sediment interface. Aqueous samples of groundwater discharge were collected at an outfall to the bay.

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

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

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

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

X 0-10%
❑ 10-30%
❑ > 30%

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

❑ < 25%
X 25-75%
□ > 75%

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

❑ Yes
X No
❑ Do not know

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

10. Could chemicals reach receptors through the dispersion of contaminants in air (e.g., volatilization, vapors, fugitive dust)? If yes, explain.
Volatilization of volatile organic compounds from soil and groundwater pose a minimal threat of occurrence to receptors.___ _

11. 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 I-2-1. Derivation of Alternate Surface Water Screening Values Using LC50 Data
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Analyte	Log K_{ow}	Source	Estimated BCF	Source for BCF	1/2 Life in Water (days)	Source	Acute LC_{50} (mg/L)	Test Organism	Source	Criteria Multiplier***	Derived Benchmark (mg/L)
Barium	--	--	100	HSDB, 2006	NA	NA	500	*Cyprinodon variegatus**	Heitmuller et al., 1981 in EPA AQUIRE, 2002	5.00E-02	2.50E+01
Cobalt	--	--	NA	NA	NA	NA	0.81	*Carassius auratus***	Birge, W.J., J.A. Black, and A.G. Westerman, 1979	1.00E-02	8.10E-03
Iron	--	--	NA	NA	NA	NA	66.5	*Crangon crangon**	Portmann, J.E, 1972	1.00E-02	6.65E-01
Vanadium	--	--	631			NA	0.62	*Coius microlepis**	Krishnakumari et al., 1983 in EPA AQUIRE, 2002	1.00E-01	6.20E-02
2,4-Dichlorophenol	2.80	TCEQ, 2005	69.0	HSDB, 2006	70.0	HSDB, 2006	5.13	*Solea solea**	Smith, S., V.J. Furay, P.J. Layiwola, and J.A. Menezes-Filho, 1994	5.00E-02	2.57E-01
2,4-Dimethylphenol	--	--	150	HSDB, 2006	3.00	HSDB, 2006	1,320	*Menidia beryllina**	Thursby and Berry, 1987	1.00E-01	1.32E+02
2,4-Dinitrotoluene	2.18	TCEQ, 2005	3.50	HSDB, 2006	0.15	HSDB, 2006	24.3	*Pimephales promelas***	Broderius, S.J., M.D. Kahl, and M.D. Hoglund, 1995	1.00E-01	2.43E+00
2,6-Dinitrotoluene	2.18	TCEQ, 2005	11.0	HSDB, 2006	0.01	HSDB, 2006	18.5	*Pimephales promelas***	Bailey, H.C., and R.J. Spanggord , 1983	1.00E-01	1.85E+00
2-Chloronaphthalene	3.81	TCEQ, 2005	4,300	HSDB, 2006	0.30	HSDB, 2006	2.33	*Artemia salina**	Abernethy, S., A.M. Bobra, W.Y. Shiu, P.G. Wells, and D. Mackay , 1986	1.00E-01	2.33E-01
2-Nitroaniline	2.02	TCEQ, 2005	15.0	HSDB, 2006	NA	NA	19.5	*Danio rerio***	Das et al., 1994	5.00E-02	9.73E-01
3-Nitroaniline	1.62	TCEQ, 2005	0.81	HSDB, 2006	1.00	HSDB, 2002	81.2	*Poecilia reticulata***	Ramos, et al., 1998	1.00E-01	8.12E+00
4,6-Dinitro-2-methylphenol	2.07	TCEQ, 2005	64	HSDB, 2006	7.00	HSDB, 2006	1.54	*Pimephales promelas***	Geiger, D.L., C.E. Northcott, D.J. Call, and L.T. Brooke , 1985	5.00E-02	7.70E-02
4-Bromophenyl phenyl ether	5.25	TCEQ, 2005	1,300	HSDB, 2006	0.67	HSDB, 2006	5.90	*Lepomis macrochirus***	Buccafusco, R.J., S.J. Ells, and G.A. LeBlanc, 1981	1.00E-01	5.90E-01

Appendix I-2-1. Derivation of Alternate Surface Water Screening Values Using LC50 Data
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Analyte	Log K_{ow}	Source	Estimated BCF	Source for BCF	1/2 Life in Water (days)	Source	Acute LC_{50} (mg/L)	Test Organism	Source	Criteria Multiplier***	Derived Benchmark (mg/L)
4-Chloro-3-methylphenol	2.99	TCEQ, 2005	13.0	HSDB, 2006	16.0	HSDB, 2006	4.05	*Pimephales promelas***	Geiger, D.L., C.E. Northcott, D.J. Call, and L.T. Brooke , 1985	5.00E-02	2.03E-01
4-Chloroaniline	--	--	8.10	HSDB, 2006	35.7	HSDB, 2006	12.5	*Crangon septemspinosa**	McLeese et al., 1979	5.00E-02	6.25E-01
4-Nitroaniline	1.07	TCEQ, 2005	0.83	HSDB, 2006	3.80	HSDB, 2002	35.0	*Leuciscus idus***	Juhnke and Luedemann, 1978	1.00E-01	3.50E+00
bis(2-Chloroethoxy)methane	2.53	TCEQ, 2005	0.8-2.2	HSDB, 2006	4,015	HSDB 2002	184	*Pimephales promelas***	Gersich and Mayes, 1996	1.00E-02	1.84E+00
bis(2-Chloroethyl) ether		--	0.40	HSDB, 2006	16.0	HSDB, 2006	600	*Lepomis macrochirus***	Buccafusco, R.J., S.J. Ellis, and G.A. LeBlanc, 1981	5.00E-02	3.00E+01
1,2-Dibromo-3-chloropropane	2.68	TCEQ, 2005	19.0	HSDB, 2006	0.58	HSDB, 2006	0.78	*Mercenaria mercenaria**	Davis, J.T., and W.S. Hardcastle	1.0E-01	7.80E-02
2-Butanone	NA	NA	1.00	HSDB, 2006	0.79	HSDB, 2006	400	*Cyprinodon variegatus**	Hetmuller et al., 1981	1.00E-01	4.00E+01
2-Hexanone	1.48	TCEQ, 2005	7.00	HSDB, 2006	0.50	HSDB, 2006	428	*Pimephales promelas***	Geiger, D.L., S.H. Poirier, L.T. Brooke, and D.J. Call , 1986	1.00E-01	4.28E+01
Carbon disulfide	1.94	HSDB, 2002	50.6	HSDB, 2006	3.50	HSDB, 2006	65.0	*Alburnus alburnus**	Bengtsson and Tarkpea, 1983 in EPA AQUIRE,	1.00E-01	6.50E+00
Dibromochloromethane	1.70	TCEQ, 2005	9.00	HSDB, 2006	0.11	HSDB, 2006	34.0	*Cyprinus carpio***	Mattice, J.S., S.C. Tsai, M.B. Burch, and J.J. Beauchamp, 1981	1.00E-01	3.40E+00
Methyl acetate	0.25	TCEQ, 2005	0.80	HSDB, 2006	0.38	HSDB, 2006	320	*Pimephales promelas***	Brooke et al, 1984	1.00E-01	3.20E+01
Methyl tert-butyl ether	1.43	TCEQ, 2005	1.50	HSDB, 2006	0.17	HSDB, 2006	672	*Pimephales promelas***	Geiger, D.L., D.J. Call, and L.T. Brooke, 1988	1.00E-01	6.72E+01

Note:
Criteria mulliplier is applied in accordance with Section 3.5.2 of TNRCC Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas (August 2001):
Criteria multiplier = 0.01 if both persistant (1.2 life > 4 days) and bioaccumulative (BCF > 1000); 0.05 if persistant but not bioaccumulative; 0.1 if not persistant
* Marine Water Study
** Freshwater Study
NA - Not available

Thursby, B.G., and W.J. Berry, 1987. Acute Toxicity of 2,4-Dimethylphenol to Saltwater Animals. Memo to D.J.Hansen, U.S.EPA, Narragansett, RI/Univ.of Rhode Island :12 p.

Appendix I-2-2. Derivation of Alternate Sediment Screening Values Using Equilibrium Partitioning
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Chemical	EqP Marine Benchmark* (µg/kg)	Marine Water Benchmark (µg/L)	K_{OC} Value	F_{OC}
4,4'-DDD	1.17E+02	0.025	8.51E+04	0.055
4,4'-DDE	8.44E+02	0.14	1.10E+05	0.055
4,4'-DDT	7.55E+00	0.001	1.37E+05	0.055
alpha-BHC	1.02E+05	1,400	1.32E+03	0.055
beta-BHC	1.90E+03	25.0	1.38E+03	0.055
Chlordane (technical)	2.64E+01	0.004	1.20E+05	0.055
delta-BHC	1.17E+04	25.0	8.51E+03	0.055
Endosulfan I	7.52E+00	0.0087	1.57E+04	0.055
Endosulfan II	7.52E+00	0.0087	1.57E+04	0.055
Endosulfan sulfate	3.93E+02	0.009	7.94E+05	0.055
Endrin aldehyde	1.18E+03	0.01	2.14E+06	0.055
gamma-BHC (Lindane)	2.41E-01	0.004	1.10E+03	0.055
Heptachlor	2.33E+00	0.0036	1.17E+04	0.055
Heptachlor epoxide	1.43E+00	0.0036	7.24E+03	0.055
Methoxychlor	1.28E+02	0.03	7.76E+04	0.055
Toxaphene	1.11E+03	0.21	9.58E+04	0.055
2,4,5-Trichlorophenol	1.97E+02	12.0	2.98E+02	0.055
2,4,6-Trichlorophenol	4.40E+02	61.0	1.31E+02	0.055
2,4-Dichlorophenol	1.02E+03	257	7.20E+01	0.055
2,4-Dimethylphenol	8.53E+05	132,000	1.17E+02	0.055
2,4-Dinitrotoluene	6.85E+03	2,430	5.13E+01	0.055
2,6-Dinitrotoluene	4.24E+03	1,850	4.17E+01	0.055
2-Chloronaphthalene	1.09E+05	233	8.51E+03	0.055
2-Chlorophenol	4.17E+03	265	2.86E+02	0.055
2-Methylnaphthalene	7.12E+03	30.0	4.32E+03	0.055
2-Methylphenol	2.74E+03	510	9.77E+01	0.055
2-Nitroaniline	1.44E+03	973	2.69E+01	0.055
2-Nitrophenol	1.69E+03	1,470	2.09E+01	0.055
3,3'-Dichlorobenzidine	1.47E+03	37.0	7.24E+02	0.055
3-Nitroaniline	1.76E+04	8,120	3.94E+01	0.055
4-Bromophenyl phenyl ether	4.71E+06	590	1.45E+05	0.055
4-Chloro-3-methylphenol	9.78E+03	203	8.78E+02	0.055
4-Chloroaniline	2.27E+03	625	6.61E+01	0.055
4-Chlorophenyl phenyl ether	2.63E+04	36.5	1.31E+04	0.055
4-Methylphenol	2.28E+03	510	8.13E+01	0.055
4-Nitroaniline	2.16E+03	3,500	1.12E+01	0.055
4-Nitrophenol	1.25E+01	71.7	3.16E+00	0.055
Acenaphthylene	1.17E+05	307	6.92E+03	0.055
Anthracene	2.32E+02	0.18	2.34E+04	0.055
bis(2-Chloroethoxy)methane	3.10E+04	1,840	3.07E+02	0.055
bis(2-Chloroethyl) ether	2.56E+04	30,000	1.55E+01	0.055
Butyl benzyl phthalate	2.22E+04	29.4	1.37E+04	0.055
Carbazole	1.26E+04	93.0	2.45E+03	0.055

Appendix I-2-2. Derivation of Alternate Sediment Screening Values Using Equilibrium Partitioning
UXO-04 Knox Trailer Park
Camp Lejeune, North Carolina

Chemical	EqP Marine Benchmark* (µg/kg)	Marine Water Benchmark (µg/L)	K_{OC} Value	F_{OC}
Dibenz(a,h)anthracene	1.01E+05	0.96	1.91E+06	0.055
Dibenzofuran	3.92E+03	65.0	1.10E+03	0.055
Diethyl phthalate	6.32E+02	75.9	1.51E+02	0.055
Dimethyl phthalate	1.01E+03	580	3.16E+01	0.055
Di-n-butyl phthalate	6.34E+03	3.40	3.39E+04	0.055
Fluorene	2.09E+04	50.0	7.59E+03	0.055
Hexachlorobutadiene	1.22E+02	0.32	6.92E+03	0.055
Isophorone	2.14E+02	129	3.02E+01	0.055
Naphthalene	2.00E+03	23.5	1.55E+03	0.055
Nitrobenzene	4.84E+02	66.8	1.32E+02	0.055
N-Nitrosodi-n-propylamine	1.30E+02	120	1.97E+01	0.055
Phenol	5.54E+01	58.0	1.74E+01	0.055
1,1-Dichloroethane	9.83E+03	5,650	3.16E+01	0.055
1,2-Dibromo-3-chloropropane	7.29E+02	78.0	1.70E+02	0.055
1,2-Dibromoethane	1.71E+04	5,800	5.37E+01	0.055
1,2-Dichloroethane	1.08E+03	1,130	1.74E+01	0.055
1,2-Dichloropropane	7.77E+03	2,400	5.89E+01	0.055
2-Butanone	4.18E+03	40,000	1.90E+00	0.055
2-Hexanone	4.21E+04	42,800	1.79E+01	0.055
4-Methyl-2-pentanone	5.07E+04	61,500	1.50E+01	0.055
Acetone	8.84E+03	282,000	5.70E-01	0.055
Bromomethane	6.91E+01	120	1.05E+01	0.055
Carbon disulfide	1.88E+04	6,500	5.25E+01	0.055
Chloroform	2.10E+03	815	4.68E+01	0.055
Chloromethane	8.91E+02	2,700	6.00E+00	0.055
Methyl acetate	2.64E+03	32,000	1.50E+00	0.055
cis-1,2-Dichloroethene	1.08E+03	680	2.90E+01	0.055
cis-1,3-Dichloropropene	1.94E+01	7.90	4.47E+01	0.055
Methyl tert-butyl ether	5.22E+04	67,200	1.41E+01	0.055
Methylene chloride	1.65E+03	2,560	1.17E+01	0.055
trans-1,2-Dichloroethene	1.87E+03	680	5.01E+01	0.055
trans-1,3-Dichloropropene	1.94E+01	7.90	4.47E+01	0.055
Xylenes (total)	1.12E+04	850	2.40E+02	0.055

Notes:

* Derived sediment benchmarks from water benchmarks based on principles of equilibrium partitioning

Appendix J
Raw Analytical Data

Phase I Surface Soil Raw Analytical Data
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Volatile Organic Compounds (UG/KG)											
1,1,1-Trichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2,2-Tetrachloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2-Trichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1-Dichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2,4-Trichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dibromo-3-chloropropane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dibromoethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichloropropane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,3-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,4-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
2-Butanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
2-Hexanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
4-Methyl-2-pentanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Acetone	13 U	9.8 U	10 U	12	10 U	11 U	11 U	9.5 U	12 J	13 U	11 U
Benzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromodichloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromoform	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromomethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Carbon disulfide	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Carbon tetrachloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloroform	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Cumene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Cyclohexane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Dibromochloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Dichlorodifluoromethane (Freon-12)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Ethylbenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methyl acetate	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methyl-tert-butyl ether (MTBE)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methylcyclohexane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methylene chloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Styrene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Tetrachloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Toluene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Trichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Trichlorofluoromethane(Freon-11)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Vinyl chloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Xylene, total	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
cis-1,2-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
cis-1,3-Dichloropropene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
trans-1,2-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
trans-1,3-Dichloropropene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U

Phase I Surface Soil Raw Analytical Data
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Semi-volatile Organic Compounds (UG/KG)											
1,1-Biphenyl	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4,5-Trichlorophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
2,4,6-Trichlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dichlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dimethylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dinitrophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
2-Chloronaphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Chlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Methylnaphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Nitroaniline	1,000 UJ	980 UJ	910 UJ	1,000 UJ	980 UJ	960 UJ	1,100 UJ	970 U	980 UJ	1,100 UJ	940 UJ
2-Nitrophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
3,3'-Dichlorobenzidine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
3-Nitroaniline	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4,6-Dinitro-2-methylphenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4-Bromophenyl-phenylether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chloro-3-methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chloroaniline	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chlorophenyl-phenylether	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 UJ	380 UJ
4-Methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Nitroaniline	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4-Nitrophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
Acenaphthene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Acenaphthylene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Acetophenone	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Anthracene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Atrazine	410 R	390 R	370 R	400 R	390 R	390 R	25,000 R	390 U	390 R	440 R	380 R
Benzaldehyde	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(a)anthracene	410 U	390 U	370 U	400 U	390 U	41 U	420 U	390 U	390 U	440 U	380 U
Benzo(a)pyrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(b)fluoranthene	410 U	390 U	370 U	400 U	390 U	46 U	420 U	390 U	390 U	440 U	380 U
Benzo(g,h,i)perylene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(k)fluoranthene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Butylbenzylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Caprolactam	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 UJ	380 UJ
Carbazole	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Chrysene	410 U	390 U	370 U	400 U	390 U	40 U	420 U	390 U	390 U	440 U	380 U
Di-n-butylphthalate	410 U	100 J	62 J	400 U	390 U	390 U	420 U	390 U	390 U	440 U	43 J
Di-n-octylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dibenz(a,h)anthracene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dibenzofuran	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Diethylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dimethyl phthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Fluoranthene	410 U	390 U	370 U	400 U	390 U	70	420 U	390 U	390 U	440 U	380 U
Fluorene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Hexachlorobenzene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 UJ	380 U
Hexachlorobutadiene	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 U	380 UJ
Hexachlorocyclopentadiene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Hexachloroethane	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Indeno(1,2,3-cd)pyrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Isophorone	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Naphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Pentachlorophenol	1,000 UJ	980 UJ	910 UJ	1,000 UJ	980 UJ	960 U	1,100 UJ	970 U	980 UJ	1,100 UJ	940 UJ
Phenanthrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Phenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Pyrene	410 U	390 U	370 U	400 U	390 U	79 J	420 U	390 U	390 U	440 U	380 U
bis(2-Chloro-1-methylethyl) ether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Chloroethoxy)methane	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Chloroethyl)ether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Ethylhexyl)phthalate	410 U	91 J	260 J	230 J	72 J	390 U	200 J	240 J	93 J	90 J	360 J
n-Nitroso-di-n-propylamine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
n-Nitrosodiphenylamine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U

Phase I Surface Soil Raw Analytical Data
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Pesticide/Polychlorinated Biphenyls (UG/KG)											
4,4'-DDD	4.1 U	7.3	9.8	2.4 J	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
4,4'-DDE	0.78 J	240	63	120	3.9 U	0.52 J	4.2 U	0.72 J	3.5 J	4.4 U	3.8 U
4,4'-DDT	0.78 J	110 J	34	53	3.9 U	0.4 J	4.2 U	0.49 J	1.1 J	4.4 U	1.1 J
Aldrin	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Aroclor-1016	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1221	83 U	78 U	73 U	80 U	78 U	77 U	85 U	77 U	78 U	88 U	75 U
Aroclor-1232	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1242	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1248	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1254	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1260	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Dieldrin	4.1 U	7.4	1.7 J	1.2 J	3.9 U	3.9 U	4.2 U	0.54 J	3.9 U	4.4 U	3.8 U
Endosulfan I	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Endosulfan II	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endosulfan sulfate	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endrin	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	0.65 J	3.9 U	4.4 U	3.8 U
Endrin aldehyde	4.1 U	3.9 U	3.7 U	0.29 J	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endrin ketone	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	0.6 J
Heptachlor	0.26 J	2 U	0.22 J	2 U	2 U	1.9 U	2.1 U	0.49 J	0.25 J	2.2 U	1.9 U
Heptachlor epoxide	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Methoxychlor	21 U	20 U	18 U	20 U	20 U	19 U	21 U	19 U	20 U	22 U	19 U
Toxaphene	210 U	200 U	180 U	200 U	200 U	190 U	210 U	190 U	200 U	220 U	190 U
alpha-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
alpha-Chlordane	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
beta-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
delta-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
gamma-BHC (Lindane)	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
gamma-Chlordane	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Explosives (UG/KG)											
1,3,5-Trinitrobenzene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
1,3-Dinitrobenzene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,4,6-Trinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,4-Dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,6-Dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2-Amino-4,6-dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
3-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
4-Amino-2,6-dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
4-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
HMX	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Nitrobenzene	110 J	20 J	68 J	66 J	100	100 U	57 J	100 U	74 J	100	100 UJ
Perchlorate	30 U	29 U	26 U	29 U	29 U	28 U	31 U	28 U	28 U	31 U	28 U
RDX	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Tetryl	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Total Metals (MG/KG)											
Aluminum	8,580	11,300	2,890	5,460	9,110	9,630	15,000	6,860	19,100	26,300	2,640
Antimony	0.61 UJ	0.59 U	0.54 U	0.56 UJ	0.47 U	0.57 U	0.65 J	0.59 U	0.56 UJ	0.65 U	0.55 UJ
Arsenic	1.9 UJ	0.94 J	0.49 U	0.62 J	4.2	2.8	1.1 J	1.5 J	4.6 J-	2.3	1.7 UJ
Barium	39.4	36.9 U	33.5 U	34.8 U	29.7 U	35.5 U	33.8 U	36.7 U	35.3 U	40.9 U	34.1 U
Beryllium	0.95 U	0.067 J	0.053 J	0.87 U	0.084 J	0.35 J	0.84 U	0.084 J	0.88 U	0.3 J	0.85 U
Cadmium	0.076 U	0.074 U	0.067 U	0.07 U	0.059 U	0.071 U	0.068 U	0.073 U	0.071 U	0.082 U	0.068 U
Calcium	2,530	5,110	837 U	1,960	887	1,890	944	919 U	1,940	1,020 U	852 U
Chromium	6.2	12.6 J	7.5 J	5.3	10.3 J	10.6 J	23.2	7 J	28.7	37.1 J	3.1
Cobalt	0.17 U	0.27 J	0.15 U	0.16 U	0.13 U	0.16 U	0.22 J	0.17 U	0.41 J	0.85 J	0.15 U
Copper	2.1 J	0.94 J	0.72 J	1.5 J	0.57 J	0.8 J	2 J	0.83 J	1.7 J	4.1 J	1.4 J
Cyanide	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.17 U	0.21 U	0.17 U	0.18 U	0.2 U	0.18 U
Iron	4,120	5,640 J	1,080 J	3,430	10,300 J	8,330 J	9,380	4,020 J	18,300	9,130 J	1,710
Lead	10	12.7 J	4.8 J	12.7	6.2 J	17.6 J	11.1	5.8 J	10.7	15 J	3.9
Magnesium	948 U	923 U	837 U	871 U	741 U	888 U	845 U	919 U	881 U	1,110	852 U
Manganese	9	9.5	7	10.7	6.5	9.2	7.6	7.9	8.9	13.7	3.5
Mercury	0.057	0.023 J	0.015 U	0.031 J	0.017 J	0.029 J	0.014 U	0.028 J	0.03 J	0.033 J	0.023 J
Nickel	1.1 J	1.8 J	0.45 J	1.1 J	1 J	1.2 J	1.3 J	1.3 J	2.2 J	3.2 J	0.43 J
Potassium	948 U	256 J	118 J	871 U	249 J	229 J	845 U	188 J	881 U	1,240 J	852 U
Selenium	0.59 U	0.68 J	0.52 U	0.57 J	0.7 J	0.55 U	0.52 U	0.57 U	0.81 J	0.63 U	0.53 U
Silver	0.13 U	0.13 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.13 U	0.12 U	0.14 U	0.12 U
Sodium	75.4 J	923 U	837 U	80.5 J	31.8 U	888 U	89.3 J	919 U	107 J	1,020 U	73.2 J
Thallium	1.9 UJ	1.8 UJ	1.7 UJ	1.7 UJ	1.5 UJ	1.8 UJ	1.7 UJ	1.8 UJ	1.8 UJ	2 UJ	1.7 UJ
Vanadium	9.1 J	16.5 J	5.2 J	9.1	20.2 J	17.1 J	31.3	10.5 J	38.3	40.4 J	4.5 J
Zinc	3.8 U	7.9 J	3.3 UJ	9.6	12.1 J	17.7 J	5.3	3.9 J	9.2	11 J	3.4 U
Wet Chemistry (MG/KG)											
% Solids	80	85	91	83	85	86	79	86	85	76	89
Total organic carbon (TOC)	43,000	2,200	2,000	14,000	5,600	6,500	1,800	4,800	21,000	2,100	3,400
Total organic halogens (TOX)	31 UJ	29 UJ	27 UJ	30 UJ	30 UJ	30 UJ	31 UJ	30 UJ	30 UJ	32 UJ	29 UJ
pH	7.2	7.1	6	7.1	6.5	6.8	5.2	5.2	6.2	4.3	4.6
Total Petroleum Hydrocarbons (MG/KG)											
Oil and Grease	310 U	290 U	260 U	290 U	280 U	280 U	310 U	280 U	280 U	320 U	280 U
TPH-diesel range	4.1	14 J	2.8 J	5.1	2 UJ	1.9 UJ	2.1 U	1.9 UJ	3.6	2.2 UJ	3.2
TPH-gas range	0.12 U	0.12	0.052 J	0.06 J	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.11 U

Notes:
U- Analyte not detected
J- Reported value is estimated
J+- Reported value is estimated biased high
R- Unreliable result
UJ- Analyte not detected. Quanitation limit is imprecise
VOCs- Volatile Organic Compounds
SVOCs- Semi-volatile Organic Compounds
PEST/PCBs- Pesticide/Polychlorinated Biphenyls
TPH- Total Petroleum Hydrocarbons

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M11		MR04-M12		MR04-M13		MR04-M14				MR04-M15		MR04-M16		MR04-M17		MR04-M18	
Sample ID	MR04-M11-0-1-07D	MR04-M11-07D	MR04-M12-0-1-07D	MR04-M12-07D	MR04-M13-0-1-07C	MR04-M13-07C	MR04-M14-0-1-07C	MR04-M14-07C	MR04-M14D-0-1-07C	MR04-M14D-07C	MR04-M15-0-1-07C	MR04-M15-07C	MR04-M16-0-1-07C	MR04-M16-07C	MR04-M17-0-1-07C	MR04-M17-07C	MR04-M18-0-1-07C	MR04-M18-07C
Sample Date	10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
1,1,2,2-Tetrachloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
1,1,2-Trichloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,1-Dichloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
1,1-Dichloroethene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
1,2,4-Trichlorobenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,2-Dibromo-3-chloropropane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,2-Dibromoethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,2-Dichlorobenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,2-Dichloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,2-Dichloropropane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,3-Dichlorobenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
1,4-Dichlorobenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
2-Butanone	NA	13 U	NA	15 U	NA	11 U	NA	9.4 J	NA	6 J	NA	15 U	NA	13 U	NA	16 U	NA	14 U
2-Hexanone	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
4-Methyl-2-pentanone	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Acetone	NA	18 J	NA	46 J	NA	11 U	NA	110	NA	59	NA	130	NA	40 J	NA	50 J	NA	120 J
Benzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Bromodichloromethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Bromoform	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Bromomethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Carbon disulfide	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Carbon tetrachloride	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Chlorobenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Chloroethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Chloroform	NA	13 U	NA	1.6 J	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Chloromethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Cyclohexane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Dibromochloromethane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Dichlorodifluoromethane (Freon-12)	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Ethylbenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Isopropylbenzene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Methyl acetate	NA	13 U	NA	15 U	NA	11 U	NA	2.8 J	NA	4.8 J	NA	10 J	NA	54 J	NA	110 J	NA	35 J
Methyl-tert-butyl ether (MTBE)	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Methylcyclohexane	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Methylene chloride	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Styrene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Tetrachloroethene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Toluene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	6 J	NA	13 UJ	NA	16 UJ	NA	14 UJ
Trichloroethene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
Trichlorofluoromethane(Freon-11)	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Vinyl chloride	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
Xylene, total	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
cis-1,2-Dichloroethene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
cis-1,3-Dichloropropene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ
trans-1,2-Dichloroethene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 U	NA	13 U	NA	16 U	NA	14 U
trans-1,3-Dichloropropene	NA	13 U	NA	15 U	NA	11 U	NA	10 U	NA	10 U	NA	15 UJ	NA	13 UJ	NA	16 UJ	NA	14 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M19		MR04-N01		MR04-N02		MR04-N03		MR04-N04		MR04-N05		MR04-N06		MR04-N07		MR04-N08	
Sample ID	MR04-M19-0-1-07C	MR04-M19-07C	MR04-N01-0-1-07D	MR04-N01-07D	MR04-N02-0-1-07C	MR04-N02-07C	MR04-N03-0-1-07D	MR04-N03-07D	MR04-N04-0-1-07D	MR04-N04-07D	MR04-N05-0-1-07D	MR04-N05-07D	MR04-N06-0-1-07D	MR04-N06-07D	MR04-N07-0-1-07D	MR04-N07-07D	MR04-N08-0-1-07D	MR04-N08-07D
Sample Date	09/10/07	09/10/07	10/17/07	10/17/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,1,2,2-Tetrachloroethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,1,2-Trichloroethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,1-Dichloroethane	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,1-Dichloroethene	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2,4-Trichlorobenzene	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2-Dibromo-3-chloropropane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2-Dibromoethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2-Dichlorobenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2-Dichloroethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,2-Dichloropropane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,3-Dichlorobenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
1,4-Dichlorobenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
2-Butanone	NA	19 U	NA	7.2 J	NA	12 UJ	NA	11 U	NA	12 J	NA	6.5 J	NA	7.8 J	NA	14 U	NA	13 U
2-Hexanone	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
4-Methyl-2-pentanone	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Acetone	NA	480 J	NA	220 J	NA	320 J	NA	29 J	NA	100 J	NA	110 J	NA	190 J	NA	77	NA	27 J
Benzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Bromodichloromethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Bromoform	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Bromomethane	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Carbon disulfide	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Carbon tetrachloride	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Chlorobenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Chloroethane	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Chloroform	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Chloromethane	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Cyclohexane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Dibromochloromethane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Dichlorodifluoromethane (Freon-12)	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Ethylbenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Isopropylbenzene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Methyl acetate	NA	47 J	NA	7.9 J	NA	280 J	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Methyl-tert-butyl ether (MTBE)	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Methylcyclohexane	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Methylene chloride	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Styrene	NA	19 UJ	NA	1.8 J	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	1.8 J
Tetrachloroethene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Toluene	NA	3 J	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Trichloroethene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Trichlorofluoromethane(Freon-11)	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Vinyl chloride	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
Xylene, total	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
cis-1,2-Dichloroethene	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
cis-1,3-Dichloropropene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
trans-1,2-Dichloroethene	NA	19 U	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U
trans-1,3-Dichloropropene	NA	19 UJ	NA	16 U	NA	12 UJ	NA	11 U	NA	14 U	NA	12 U	NA	18 U	NA	14 U	NA	13 U

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-N09		MR04-N10		MR04-N11		MR04-N12		MR04-N13		MR04-N14		MR04-N15		MR04-N16		MR04-O01	
Sample ID	MR04-N09-0-1-07D	MR04-N09-07D	MR04-N10-0-1-07C	MR04-N10-07C	MR04-N11-0-1-07C	MR04-N11-07C	MR04-N12-0-1-07C	MR04-N12-07C	MR04-N13-0-1-07C	MR04-N13-07C	MR04-N14-0-1-07C	MR04-N14-07C	MR04-N15-0-1-07C	MR04-N15-07C	MR04-N16-0-1-07C	MR04-N16-07C	MR04-O01-0-1-07C	MR04-O01-07C
Sample Date	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
1,1,2,2-Tetrachloroethane	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
1,1,2-Trichloroethane	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,1-Dichloroethane	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
1,1-Dichloroethene	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
1,2,4-Trichlorobenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,2-Dibromo-3-chloropropane	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,2-Dibromoethane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
1,2-Dichlorobenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,2-Dichloroethane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
1,2-Dichloropropane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
1,3-Dichlorobenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
1,4-Dichlorobenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
2-Butanone	NA	13 U	NA	22	NA	14 U	NA	10 J	NA	11 U	NA	13 J	NA	12 J	NA	31 J	NA	55 J
2-Hexanone	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
4-Methyl-2-pentanone	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Acetone	NA	21 J	NA	460 J	NA	14 U	NA	100 J	NA	31 J	NA	370 J	NA	580 J	NA	910 J	NA	1,000 J
Benzene	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Bromodichloromethane	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Bromoform	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Bromomethane	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Carbon disulfide	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Carbon tetrachloride	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Chlorobenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Chloroethane	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Chloroform	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Chloromethane	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Cyclohexane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Dibromochloromethane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Dichlorodifluoromethane (Freon-12)	NA	13 UJ	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Ethylbenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Isopropylbenzene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Methyl acetate	NA	13 U	NA	7.3 J	NA	14 U	NA	68 J	NA	19	NA	190 J	NA	280	NA	1,700 J	NA	12 U
Methyl-tert-butyl ether (MTBE)	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Methylcyclohexane	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Methylene chloride	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Styrene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	1.8 J
Tetrachloroethene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
Toluene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	3 J	NA	17 U	NA	11 J	NA	1.2 J
Trichloroethene	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
Trichlorofluoromethane(Freon-11)	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Vinyl chloride	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
Xylene, total	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ
cis-1,2-Dichloroethene	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
cis-1,3-Dichloropropene	NA	13 U	NA	11 U	NA	14 U	NA	14 UJ	NA	11 U	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 U
trans-1,2-Dichloroethene	NA	13 U	NA	11 U	NA	14 U	NA	14 U	NA	11 U	NA	13 U	NA	17 U	NA	17 U	NA	12 U
trans-1,3-Dichloropropene	NA	13 U	NA	11 UJ	NA	14 U	NA	14 UJ	NA	11 UJ	NA	13 UJ	NA	17 U	NA	17 UJ	NA	12 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-O02		MR04-O03		MR04-O04				MR04-O05		MR04-O06		MR04-O07		MR04-O08		MR04-O09	
Sample ID	MR04-O02-0-1-07C	MR04-O02-07C	MR04-O03-0-1-07C	MR04-O03-07C	MR04-O04-0-1-07C	MR04-O04-07C	MR04-O04D-0-1-07C	MR04-O04D-07C	MR04-O05-0-1-07C	MR04-O05-07C	MR04-O06-0-1-07C	MR04-O06-07C	MR04-O07-0-1-07C	MR04-O07-07C	MR04-O08-0-1-07C	MR04-O08-07C	MR04-O09-0-1-07C	MR04-O09-07C
Sample Date	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,1,2,2-Tetrachloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,1,2-Trichloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,1-Dichloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,1-Dichloroethene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2,4-Trichlorobenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2-Dibromo-3-chloropropane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2-Dibromoethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2-Dichlorobenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2-Dichloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,2-Dichloropropane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,3-Dichlorobenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
1,4-Dichlorobenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
2-Butanone	NA	66 J	NA	25	NA	37 J	NA	16	NA	37 J	NA	14 U	NA	40	NA	6.6 J	NA	17
2-Hexanone	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
4-Methyl-2-pentanone	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Acetone	NA	2,100 J	NA	470 J	NA	860 J	NA	240 J	NA	670 J	NA	200 J	NA	320 J	NA	320 J	NA	480 J
Benzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	1.1 J	NA	16 U	NA	14 U	NA	14 U
Bromodichloromethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Bromoform	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Bromomethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Carbon disulfide	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	6.1 J	NA	16 U	NA	14 U	NA	14 U
Carbon tetrachloride	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Chlorobenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Chloroethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 UJ	NA	16 UJ	NA	14 U	NA	14 UJ
Chloroform	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Chloromethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Cyclohexane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Dibromochloromethane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Dichlorodifluoromethane (Freon-12)	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Ethylbenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Isopropylbenzene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Methyl acetate	NA	12 U	NA	11 U	NA	28 J	NA	3.9 J	NA	16 J	NA	6.7 J	NA	59	NA	6 J	NA	14 U
Methyl-tert-butyl ether (MTBE)	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Methylcyclohexane	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Methylene chloride	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Styrene	NA	9.3 J	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Tetrachloroethene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Toluene	NA	1.1 J	NA	11 U	NA	1.2 J	NA	10 U	NA	13 UJ	NA	1.8 J	NA	11 J	NA	14 U	NA	2.2 J
Trichloroethene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Trichlorofluoromethane(Freon-11)	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Vinyl chloride	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
Xylene, total	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U
cis-1,2-Dichloroethene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
cis-1,3-Dichloropropene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
trans-1,2-Dichloroethene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 U	NA	14 U	NA	16 U	NA	14 U	NA	14 U
trans-1,3-Dichloropropene	NA	12 U	NA	11 U	NA	12 U	NA	10 U	NA	13 UJ	NA	14 U	NA	16 U	NA	14 U	NA	14 U

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-P01		MR04-P02		MR04-P03		MR04-P04	
Sample ID	MR04-P01-0-1-07C	MR04-P01-07C	MR04-P02-0-1-07C	MR04-P02-07C	MR04-P03-0-1-07C	MR04-P03-07C	MR04-P04-0-1-07C	MR04-P04-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name								
Volatile Organic Compounds (UG_KG)								
1,1,1-Trichloroethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,1,2,2-Tetrachloroethane	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,1,2-Trichloroethane	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,1-Dichloroethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,1-Dichloroethene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,2,4-Trichlorobenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,2-Dibromo-3-chloropropane	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,2-Dibromoethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,2-Dichlorobenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,2-Dichloroethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,2-Dichloropropane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
1,3-Dichlorobenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
1,4-Dichlorobenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
2-Butanone	NA	50 J	NA	6.2 J	NA	15 J	NA	37
2-Hexanone	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
4-Methyl-2-pentanone	NA	29 U	NA	13 U	NA	16 U	NA	37 UJ
Acetone	NA	1,100 J	NA	650 J	NA	1,200 J	NA	2,400 J
Benzene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Bromodichloromethane	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Bromoform	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Bromomethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Carbon disulfide	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Carbon tetrachloride	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Chlorobenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Chloroethane	NA	29 UJ	NA	13 UJ	NA	16 UJ	NA	37 UJ
Chloroform	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Chloromethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Cyclohexane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Dibromochloromethane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Dichlorodifluoromethane (Freon-12)	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Ethylbenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Isopropylbenzene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Methyl acetate	NA	130 J	NA	18	NA	64	NA	230
Methyl-tert-butyl ether (MTBE)	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Methylcyclohexane	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Methylene chloride	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Styrene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Tetrachloroethene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ
Toluene	NA	12 J	NA	1.9 J	NA	6 J	NA	6 J
Trichloroethene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Trichlorofluoromethane(Freon-11)	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Vinyl chloride	NA	29 U	NA	13 U	NA	16 U	NA	37 U
Xylene, total	NA	29 U	NA	13 U	NA	16 U	NA	37 U
cis-1,2-Dichloroethene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
cis-1,3-Dichloropropene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
trans-1,2-Dichloroethene	NA	29 U	NA	13 U	NA	16 U	NA	37 U
trans-1,3-Dichloropropene	NA	29 UJ	NA	13 U	NA	16 U	NA	37 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M11		MR04-M12		MR04-M13		MR04-M14				MR04-M15		MR04-M16		MR04-M17		MR04-M18	
Sample ID	MR04-M11-0-1-07D	MR04-M11-07D	MR04-M12-0-1-07D	MR04-M12-07D	MR04-M13-0-1-07C	MR04-M13-07C	MR04-M14-0-1-07C	MR04-M14-07C	MR04-M14D-0-1-07C	MR04-M14D-07C	MR04-M15-0-1-07C	MR04-M15-07C	MR04-M16-0-1-07C	MR04-M16-07C	MR04-M17-0-1-07C	MR04-M17-07C	MR04-M18-0-1-07C	MR04-M18-07C
Sample Date	10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,2'-Oxybis(1-chloropropane)	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,4,5-Trichlorophenol	1,000 U	NA	1,100 U	NA	380 U	NA	380 U	NA	380 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,4-Dichlorophenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,4-Dimethylphenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,4-Dinitrophenol	1,000 UJ	NA	1,100 UJ	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
2,4-Dinitrotoluene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2,6-Dinitrotoluene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2-Chloronaphthalene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2-Chlorophenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2-Methylnaphthalene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2-Methylphenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
2-Nitroaniline	1,000 U	NA	1,100 U	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
2-Nitrophenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
3,3'-Dichlorobenzidine	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
3-Nitroaniline	1,000 U	NA	1,100 U	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	1,000 UJ	NA	1,100 UJ	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
4-Chloro-3-methylphenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
4-Chloroaniline	410 U	NA	450 U	NA	760 U	NA	760 U	NA	760 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
4-Chlorophenyl-phenylether	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
4-Methylphenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
4-Nitroaniline	1,000 U	NA	1,100 U	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
4-Nitrophenol	1,000 U	NA	1,100 U	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
Acenaphthene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Acenaphthylene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Acetophenone	24 J	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Anthracene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Atrazine	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzaldehyde	410 U	NA	450 U	NA	380 UJ	NA	380 UJ	NA	380 UJ	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzo(a)anthracene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzo(a)pyrene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzo(b)fluoranthene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzo(g,h,i)perylene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Benzo(k)fluoranthene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Butylbenzylphthalate	30 J	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	22 J	NA
Caprolactam	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Carbazole	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Chrysene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Di-n-butylphthalate	71 J	NA	35 J	NA	380 U	NA	20 J	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Di-n-octylphthalate	410 UJ	NA	450 UJ	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Dibenz(a,h)anthracene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Dibenzofuran	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Diethylphthalate	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Dimethyl phthalate	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Fluoranthene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Fluorene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Hexachlorobenzene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Hexachlorobutadiene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Hexachlorocyclopentadiene	410 UJ	NA	450 UJ	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Hexachloroethane	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Isophorone	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Naphthalene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Nitrobenzene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Pentachlorophenol	1,000 UJ	NA	1,100 UJ	NA	2,000 U	NA	2,000 U	NA	2,000 U	NA	1,200 U	NA	920 U	NA	1,200 U	NA	1,100 U	NA
Phenanthrene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Phenol	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
Pyrene	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
bis(2-Chloroethoxy)methane	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
bis(2-Chloroethyl)ether	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	77 J	NA	25 J	NA	41 J	NA	73 J	NA
n-Nitroso-di-n-propylamine	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA
n-Nitrosodiphenylamine	410 U	NA	450 U	NA	380 U	NA	380 U	NA	380 U	NA	490 U	NA	370 U	NA	460 U	NA	450 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M19		MR04-N01		MR04-N02		MR04-N03		MR04-N04		MR04-N05		MR04-N06		MR04-N07		MR04-N08	
Sample ID	MR04-M19-0-1-07C	MR04-M19-07C	MR04-N01-0-1-07D	MR04-N01-07D	MR04-N02-0-1-07C	MR04-N02-07C	MR04-N03-0-1-07D	MR04-N03-07D	MR04-N04-0-1-07D	MR04-N04-07D	MR04-N05-0-1-07D	MR04-N05-07D	MR04-N06-0-1-07D	MR04-N06-07D	MR04-N07-0-1-07D	MR04-N07-07D	MR04-N08-0-1-07D	MR04-N08-07D
Sample Date	09/10/07	09/10/07	10/17/07	10/17/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,2'-Oxybis(1-chloropropane)	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,4,5-Trichlorophenol	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 U	NA	1,000 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,4-Dichlorophenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,4-Dimethylphenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,4-Dinitrophenol	1,300 U	NA	1,200 UJ	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 UJ	NA	1,000 UJ	NA	1,100 UJ	NA
2,4-Dinitrotoluene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2,6-Dinitrotoluene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2-Chloronaphthalene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2-Chlorophenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2-Methylnaphthalene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2-Methylphenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
2-Nitroaniline	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 U	NA	1,000 U	NA	1,100 U	NA
2-Nitrophenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
3,3'-Dichlorobenzidine	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
3-Nitroaniline	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 U	NA	1,000 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 UJ	NA	1,000 UJ	NA	1,100 UJ	NA
4-Bromophenyl-phenylether	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
4-Chloro-3-methylphenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
4-Chloroaniline	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
4-Chlorophenyl-phenylether	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
4-Methylphenol	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
4-Nitroaniline	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 U	NA	1,000 U	NA	1,100 U	NA
4-Nitrophenol	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 U	NA	1,000 U	NA	1,100 U	NA
Acenaphthene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Acenaphthylene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Acetophenone	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	43 J	NA	30 J	NA	440 U	NA
Anthracene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Atrazine	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzaldehyde	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzo(a)anthracene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzo(a)pyrene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzo(b)fluoranthene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzo(g,h,i)perylene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Benzo(k)fluoranthene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Butylbenzylphthalate	510 U	NA	460 U	NA	370 U	NA	30 J	NA	430 U	NA	19 J	NA	32 J	NA	21 J	NA	20 J	NA
Caprolactam	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Carbazole	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Chrysene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Di-n-butylphthalate	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Di-n-octylphthalate	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 UJ	NA	400 UJ	NA	440 UJ	NA
Dibenz(a,h)anthracene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Dibenzofuran	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Diethylphthalate	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Dimethyl phthalate	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Fluoranthene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Fluorene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Hexachlorobenzene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Hexachlorobutadiene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Hexachlorocyclopentadiene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 UJ	NA	400 UJ	NA	440 UJ	NA
Hexachloroethane	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Indeno(1,2,3-cd)pyrene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Isophorone	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Naphthalene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Nitrobenzene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Pentachlorophenol	1,300 U	NA	1,200 U	NA	920 U	NA	870 U	NA	1,100 U	NA	870 U	NA	1,200 UJ	NA	1,000 UJ	NA	1,100 UJ	NA
Phenanthrene	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Phenol	510 U	NA	460 U	NA	370 U	NA	29 J	NA	34 J	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
Pyrene	510 U	NA	460 UJ	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
bis(2-Chloroethoxy)methane	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
bis(2-Chloroethyl)ether	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
bis(2-Ethylhexyl)phthalate	290 J	NA	460 U	NA	370 U	NA	80 J	NA	71 J	NA	60 J	NA	490 U	NA	400 U	NA	440 U	NA
n-Nitroso-di-n-propylamine	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA
n-Nitrosodiphenylamine	510 U	NA	460 U	NA	370 U	NA	340 U	NA	430 U	NA	350 U	NA	490 U	NA	400 U	NA	440 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-N09		MR04-N10		MR04-N11		MR04-N12		MR04-N13		MR04-N14		MR04-N15		MR04-N16		MR04-O01	
Sample ID	MR04-N09-0-1-07D	MR04-N09-07D	MR04-N10-0-1-07C	MR04-N10-07C	MR04-N11-0-1-07C	MR04-N11-07C	MR04-N12-0-1-07C	MR04-N12-07C	MR04-N13-0-1-07C	MR04-N13-07C	MR04-N14-0-1-07C	MR04-N14-07C	MR04-N15-0-1-07C	MR04-N15-07C	MR04-N16-0-1-07C	MR04-N16-07C	MR04-O01-0-1-07C	MR04-O01-07C
Sample Date	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,2'-Oxybis(1-chloropropane)	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,4,5-Trichlorophenol	1,100 U	NA	370 U	NA	450 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	370 U	NA
2,4,6-Trichlorophenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,4-Dichlorophenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,4-Dimethylphenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,4-Dinitrophenol	1,100 UJ	NA	1,900 U	NA	2,300 UJ	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
2,4-Dinitrotoluene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2,6-Dinitrotoluene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2-Chloronaphthalene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2-Chlorophenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2-Methylnaphthalene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2-Methylphenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
2-Nitroaniline	1,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
2-Nitrophenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
3,3'-Dichlorobenzidine	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
3-Nitroaniline	1,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
4,6-Dinitro-2-methylphenol	1,100 UJ	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
4-Bromophenyl-phenylether	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
4-Chloro-3-methylphenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
4-Chloroaniline	430 U	NA	740 U	NA	900 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	740 U	NA
4-Chlorophenyl-phenylether	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
4-Methylphenol	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
4-Nitroaniline	1,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
4-Nitrophenol	1,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
Acenaphthene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Acenaphthylene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Acetophenone	26 J	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Anthracene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Atrazine	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Benzaldehyde	430 U	NA	370 UJ	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 UJ	NA
Benzo(a)anthracene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Benzo(a)pyrene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Benzo(b)fluoranthene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Benzo(g,h,i)perylene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Benzo(k)fluoranthene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Butylbenzylphthalate	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	17 J	NA	370 U	NA
Caprolactam	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Carbazole	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Chrysene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Di-n-butylphthalate	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	22 J	NA	370 U	NA
Di-n-octylphthalate	430 UJ	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Dibenz(a,h)anthracene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Dibenzofuran	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Diethylphthalate	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Dimethyl phthalate	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Fluoranthene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Fluorene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Hexachlorobenzene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Hexachlorobutadiene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Hexachlorocyclopentadiene	430 UJ	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Hexachloroethane	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Indeno(1,2,3-cd)pyrene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Isophorone	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Naphthalene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Nitrobenzene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Pentachlorophenol	1,100 UJ	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,000 U	NA	970 U	NA	930 U	NA	930 U	NA	1,900 U	NA
Phenanthrene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Phenol	430 U	NA	370 U	NA	450 U	NA	25 J	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
Pyrene	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
bis(2-Chloroethoxy)methane	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
bis(2-Chloroethyl)ether	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
bis(2-Ethylhexyl)phthalate	430 U	NA	370 U	NA	450 U	NA	41 J	NA	33 J	NA	38 J	NA	37 J	NA	49 J	NA	370 U	NA
n-Nitroso-di-n-propylamine	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA
n-Nitrosodiphenylamine	430 U	NA	370 U	NA	450 U	NA	420 U	NA	410 U	NA	380 U	NA	370 U	NA	370 U	NA	370 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-O02		MR04-O03		MR04-O04				MR04-O05		MR04-O06		MR04-O07		MR04-O08		MR04-O09	
Sample ID	MR04-O02-0-1-07C	MR04-O02-07C	MR04-O03-0-1-07C	MR04-O03-07C	MR04-O04-0-1-07C	MR04-O04-07C	MR04-O04D-0-1-07C	MR04-O04D-07C	MR04-O05-0-1-07C	MR04-O05-07C	MR04-O06-0-1-07C	MR04-O06-07C	MR04-O07-0-1-07C	MR04-O07-07C	MR04-O08-0-1-07C	MR04-O08-07C	MR04-O09-0-1-07C	MR04-O09-07C
Sample Date	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,4,5-Trichlorophenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,4,6-Trichlorophenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,4-Dichlorophenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,4-Dimethylphenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,4-Dinitrophenol	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
2,4-Dinitrotoluene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2,6-Dinitrotoluene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2-Chloronaphthalene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2-Chlorophenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2-Methylnaphthalene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2-Methylphenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
2-Nitroaniline	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
2-Nitrophenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
3,3'-Dichlorobenzidine	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
3-Nitroaniline	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
4,6-Dinitro-2-methylphenol	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
4-Bromophenyl-phenylether	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
4-Chloro-3-methylphenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
4-Chloroaniline	730 U	NA	750 U	NA	760 U	NA	770 U	NA	740 U	NA	970 U	NA	860 U	NA	840 U	NA	890 U	NA
4-Chlorophenyl-phenylether	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
4-Methylphenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
4-Nitroaniline	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
4-Nitrophenol	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
Acenaphthene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Acenaphthylene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Acetophenone	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Anthracene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Atrazine	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzaldehyde	370 UJ	NA	370 UJ	NA	380 UJ	NA	390 UJ	NA	370 UJ	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzo(a)anthracene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzo(a)pyrene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzo(b)fluoranthene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzo(g,h,i)perylene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Benzo(k)fluoranthene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Butylbenzylphthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Caprolactam	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Carbazole	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Chrysene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Di-n-butylphthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Di-n-octylphthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Dibenz(a,h)anthracene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Dibenzofuran	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Diethylphthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Dimethyl phthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Fluoranthene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Fluorene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Hexachlorobenzene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Hexachlorobutadiene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Hexachlorocyclopentadiene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Hexachloroethane	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Isophorone	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Naphthalene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Nitrobenzene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Pentachlorophenol	1,900 U	NA	1,900 U	NA	1,900 U	NA	2,000 U	NA	1,900 U	NA	2,500 U	NA	2,200 U	NA	2,200 U	NA	2,300 U	NA
Phenanthrene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Phenol	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
Pyrene	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
bis(2-Chloroethoxy)methane	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
bis(2-Chloroethyl)ether	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	60 J	NA	430 U	NA	420 U	NA	450 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA
n-Nitrosodiphenylamine	370 U	NA	370 U	NA	380 U	NA	390 U	NA	370 U	NA	490 U	NA	430 U	NA	420 U	NA	450 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-P01		MR04-P02		MR04-P03		MR04-P04	
Sample ID	MR04-P01-0-1-07C	MR04-P01-07C	MR04-P02-0-1-07C	MR04-P02-07C	MR04-P03-0-1-07C	MR04-P03-07C	MR04-P04-0-1-07C	MR04-P04-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name								
Semi-volatile Organic Compounds (UG_KG)								
1,1-Biphenyl	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,2'-Oxybis(1-chloropropane)	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,4,5-Trichlorophenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,4,6-Trichlorophenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,4-Dichlorophenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,4-Dimethylphenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,4-Dinitrophenol	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
2,4-Dinitrotoluene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2,6-Dinitrotoluene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2-Chloronaphthalene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2-Chlorophenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2-Methylnaphthalene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2-Methylphenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
2-Nitroaniline	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
2-Nitrophenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
3,3'-Dichlorobenzidine	460 U	NA	430 U	NA	450 U	NA	410 U	NA
3-Nitroaniline	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
4,6-Dinitro-2-methylphenol	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
4-Bromophenyl-phenylether	460 U	NA	430 U	NA	450 U	NA	410 U	NA
4-Chloro-3-methylphenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
4-Chloroaniline	910 U	NA	860 U	NA	910 U	NA	820 U	NA
4-Chlorophenyl-phenylether	460 U	NA	430 U	NA	450 U	NA	410 U	NA
4-Methylphenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
4-Nitroaniline	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
4-Nitrophenol	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
Acenaphthene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Acenaphthylene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Acetophenone	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Anthracene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Atrazine	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzaldehyde	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzo(a)anthracene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzo(a)pyrene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzo(b)fluoranthene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzo(g,h,i)perylene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Benzo(k)fluoranthene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Butylbenzylphthalate	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Caprolactam	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Carbazole	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Chrysene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Di-n-butylphthalate	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Di-n-octylphthalate	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Dibenz(a,h)anthracene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Dibenzofuran	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Diethylphthalate	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Dimethyl phthalate	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Fluoranthene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Fluorene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Hexachlorobenzene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Hexachlorobutadiene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Hexachlorocyclopentadiene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Hexachloroethane	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Indeno(1,2,3-cd)pyrene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Isophorone	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Naphthalene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Nitrobenzene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Pentachlorophenol	2,300 U	NA	2,200 U	NA	2,300 U	NA	2,100 U	NA
Phenanthrene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Phenol	460 U	NA	430 U	NA	450 U	NA	410 U	NA
Pyrene	460 U	NA	430 U	NA	450 U	NA	410 U	NA
bis(2-Chloroethoxy)methane	460 U	NA	430 U	NA	450 U	NA	410 U	NA
bis(2-Chloroethyl)ether	460 U	NA	430 U	NA	450 U	NA	410 U	NA
bis(2-Ethylhexyl)phthalate	460 U	NA	68 J	NA	450 U	NA	68 J	NA
n-Nitroso-di-n-propylamine	460 U	NA	430 U	NA	450 U	NA	410 U	NA
n-Nitrosodiphenylamine	460 U	NA	430 U	NA	450 U	NA	410 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M11		MR04-M12		MR04-M13		MR04-M14				MR04-M15		MR04-M16		MR04-M17		MR04-M18	
Sample ID	MR04-M11-0-1-07D	MR04-M11-07D	MR04-M12-0-1-07D	MR04-M12-07D	MR04-M13-0-1-07C	MR04-M13-07C	MR04-M14-0-1-07C	MR04-M14-07C	MR04-M14D-0-1-07C	MR04-M14D-07C	MR04-M15-0-1-07C	MR04-M15-07C	MR04-M16-0-1-07C	MR04-M16-07C	MR04-M17-0-1-07C	MR04-M17-07C	MR04-M18-0-1-07C	MR04-M18-07C
Sample Date	10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	0.44 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
4,4'-DDE	13	NA	13	NA	3 J	NA	2.9 J	NA	4.6 J	NA	5.6	NA	32	NA	4.6 U	NA	14	NA
4,4'-DDT	8.3	NA	13 J	NA	6.1	NA	2.8 J	NA	4.6 J	NA	3.7 J	NA	28	NA	4.6 U	NA	7.6	NA
Aldrin	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
Aroclor-1016	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Aroclor-1221	84 U	NA	92 U	NA	76 U	NA	78 U	NA	79 U	NA	99 U	NA	74 U	NA	93 U	NA	91 U	NA
Aroclor-1232	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Aroclor-1242	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Aroclor-1248	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Aroclor-1254	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Aroclor-1260	41 U	NA	45 U	NA	38 U	NA	38 U	NA	39 U	NA	49 U	NA	37 U	NA	46 U	NA	45 U	NA
Dieldrin	8.5	NA	7.4	NA	3.8 U	NA	0.73 J	NA	0.5 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
Endosulfan I	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
Endosulfan II	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
Endosulfan sulfate	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
Endrin	4.1 U	NA	4.5 U	NA	3.8 U	NA	0.83 J	NA	1.7 J	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
Endrin aldehyde	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	4.9 U	NA	3.8 J	NA	4.6 U	NA	4.5	NA
Endrin ketone	4.1 U	NA	4.5 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	4.9 U	NA	3.7 U	NA	4.6 U	NA	4.5 U	NA
Heptachlor	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
Heptachlor epoxide	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
Methoxychlor	21 U	NA	23 U	NA	19 U	NA	20 U	NA	20 U	NA	25 U	NA	19 U	NA	24 U	NA	23 U	NA
Toxaphene	210 U	NA	230 U	NA	190 U	NA	200 U	NA	200 U	NA	250 U	NA	190 U	NA	240 U	NA	230 U	NA
alpha-BHC	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
alpha-Chlordane	2.1 U	NA	1.3 J	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
beta-BHC	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
delta-BHC	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
gamma-BHC (Lindane)	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
gamma-Chlordane	2.1 U	NA	2.3 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.5 U	NA	1.9 U	NA	2.4 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M19		MR04-N01		MR04-N02		MR04-N03		MR04-N04		MR04-N05		MR04-N06		MR04-N07		MR04-N08	
Sample ID	MR04-M19-0-1-07C	MR04-M19-07C	MR04-N01-0-1-07D	MR04-N01-07D	MR04-N02-0-1-07C	MR04-N02-07C	MR04-N03-0-1-07D	MR04-N03-07D	MR04-N04-0-1-07D	MR04-N04-07D	MR04-N05-0-1-07D	MR04-N05-07D	MR04-N06-0-1-07D	MR04-N06-07D	MR04-N07-0-1-07D	MR04-N07-07D	MR04-N08-0-1-07D	MR04-N08-07D
Sample Date	09/10/07	09/10/07	10/17/07	10/17/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	5.9	NA	4 U	NA	2.9 J	NA
4,4'-DDE	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	11	NA	2 J	NA	330	NA	6.3	NA	82	NA
4,4'-DDT	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	2.6 J	NA	3.5 U	NA	170	NA	4.5	NA	34	NA
Aldrin	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
Aroclor-1016	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Aroclor-1221	100 U	NA	93 U	NA	74 U	NA	70 U	NA	87 U	NA	71 U	NA	98 U	NA	81 U	NA	89 U	NA
Aroclor-1232	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Aroclor-1242	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Aroclor-1248	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Aroclor-1254	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Aroclor-1260	51 U	NA	46 U	NA	37 U	NA	34 U	NA	43 U	NA	35 U	NA	48 U	NA	40 U	NA	44 U	NA
Dieldrin	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA
Endosulfan I	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
Endosulfan II	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA
Endosulfan sulfate	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA
Endrin	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA
Endrin aldehyde	3.2 J	NA	4.6 U	NA	2 J	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 U	NA	4 U	NA	4.4 U	NA
Endrin ketone	5.1 U	NA	4.6 U	NA	3.7 U	NA	3.4 U	NA	4.3 U	NA	3.5 U	NA	4.8 J	NA	4 U	NA	4.4 U	NA
Heptachlor	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
Heptachlor epoxide	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
Methoxychlor	26 U	NA	24 U	NA	19 U	NA	18 U	NA	22 U	NA	18 U	NA	25 U	NA	20 U	NA	23 U	NA
Toxaphene	260 U	NA	240 U	NA	190 U	NA	180 U	NA	220 U	NA	180 U	NA	250 U	NA	200 U	NA	230 U	NA
alpha-BHC	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
alpha-Chlordane	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
beta-BHC	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
delta-BHC	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
gamma-BHC (Lindane)	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
gamma-Chlordane	2.6 U	NA	2.4 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	1.8 U	NA	2.5 U	NA	2 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-N09		MR04-N10		MR04-N11		MR04-N12		MR04-N13		MR04-N14		MR04-N15		MR04-N16		MR04-O01	
Sample ID	MR04-N09-0-1-07D	MR04-N09-07D	MR04-N10-0-1-07C	MR04-N10-07C	MR04-N11-0-1-07C	MR04-N11-07C	MR04-N12-0-1-07C	MR04-N12-07C	MR04-N13-0-1-07C	MR04-N13-07C	MR04-N14-0-1-07C	MR04-N14-07C	MR04-N15-0-1-07C	MR04-N15-07C	MR04-N16-0-1-07C	MR04-N16-07C	MR04-O01-0-1-07C	MR04-O01-07C
Sample Date	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
4,4'-DDE	14	NA	3.7 U	NA	0.82 J	NA	3.2 J	NA	2.8 J	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
4,4'-DDT	7.8	NA	3.7 U	NA	4.5 UJ	NA	3.2 J	NA	3.7 J	NA	3.8 U	NA	3.7 U	NA	2.1 J	NA	3.7 U	NA
Aldrin	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
Aroclor-1016	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Aroclor-1221	88 U	NA	75 U	NA	91 UJ	NA	86 U	NA	84 U	NA	78 U	NA	75 U	NA	75 U	NA	75 U	NA
Aroclor-1232	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Aroclor-1242	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Aroclor-1248	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Aroclor-1254	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Aroclor-1260	43 U	NA	37 U	NA	45 UJ	NA	42 U	NA	41 U	NA	38 U	NA	37 U	NA	37 U	NA	37 U	NA
Dieldrin	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Endosulfan I	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
Endosulfan II	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Endosulfan sulfate	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Endrin	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Endrin aldehyde	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	3.3 J	NA	2.4 J	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Endrin ketone	4.3 U	NA	3.7 U	NA	4.5 UJ	NA	4.2 U	NA	4.1 U	NA	3.8 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA
Heptachlor	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
Heptachlor epoxide	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
Methoxychlor	22 U	NA	19 U	NA	23 UJ	NA	22 U	NA	21 U	NA	20 U	NA	19 U	NA	19 U	NA	19 U	NA
Toxaphene	220 U	NA	190 U	NA	230 UJ	NA	220 U	NA	210 U	NA	200 U	NA	190 U	NA	190 U	NA	190 U	NA
alpha-BHC	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
alpha-Chlordane	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
beta-BHC	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
delta-BHC	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
gamma-BHC (Lindane)	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
gamma-Chlordane	2.2 U	NA	1.9 U	NA	2.3 UJ	NA	2.2 U	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-O02		MR04-O03		MR04-O04				MR04-O05		MR04-O06		MR04-O07		MR04-O08		MR04-O09	
Sample ID	MR04-O02-0-1-07C	MR04-O02-07C	MR04-O03-0-1-07C	MR04-O03-07C	MR04-O04-0-1-07C	MR04-O04-07C	MR04-O04D-0-1-07C	MR04-O04D-07C	MR04-O05-0-1-07C	MR04-O05-07C	MR04-O06-0-1-07C	MR04-O06-07C	MR04-O07-0-1-07C	MR04-O07-07C	MR04-O08-0-1-07C	MR04-O08-07C	MR04-O09-0-1-07C	MR04-O09-07C
Sample Date	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
4,4'-DDE	3.7 U	NA	3.8 U	NA	0.65 J	NA	2 J	NA	1.4 J	NA	4.9 U	NA	4.3 U	NA	0.74 J	NA	4.5 U	NA
4,4'-DDT	3.7 U	NA	2.3 J	NA	3.8 U	NA	1.9 J	NA	2.7 J	NA	4.9 U	NA	3.5 J	NA	2.2 J	NA	4.5 U	NA
Aldrin	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 UJ	NA
Aroclor-1016	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Aroclor-1221	75 U	NA	76 U	NA	76 U	NA	79 U	NA	75 U	NA	99 U	NA	88 U	NA	84 U	NA	90 U	NA
Aroclor-1232	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Aroclor-1242	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Aroclor-1248	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Aroclor-1254	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Aroclor-1260	37 U	NA	38 U	NA	38 U	NA	39 U	NA	37 U	NA	49 U	NA	43 U	NA	42 U	NA	45 U	NA
Dieldrin	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Endosulfan I	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
Endosulfan II	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Endosulfan sulfate	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Endrin	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	1.4 J	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Endrin aldehyde	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Endrin ketone	3.7 U	NA	3.8 U	NA	3.8 U	NA	3.9 U	NA	3.7 U	NA	4.9 U	NA	4.3 U	NA	4.2 U	NA	4.5 U	NA
Heptachlor	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 UJ	NA
Heptachlor epoxide	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
Methoxychlor	19 U	NA	19 U	NA	19 U	NA	20 U	NA	19 U	NA	25 U	NA	22 U	NA	21 U	NA	23 U	NA
Toxaphene	190 U	NA	190 U	NA	190 U	NA	200 U	NA	190 U	NA	250 U	NA	220 U	NA	210 U	NA	230 U	NA
alpha-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
alpha-Chlordane	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
beta-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
delta-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
gamma-BHC (Lindane)	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 UJ	NA
gamma-Chlordane	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	130 J	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-P01		MR04-P02		MR04-P03		MR04-P04	
Sample ID	MR04-P01-0-1-07C	MR04-P01-07C	MR04-P02-0-1-07C	MR04-P02-07C	MR04-P03-0-1-07C	MR04-P03-07C	MR04-P04-0-1-07C	MR04-P04-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name								
Pesticide/Polychlorinated Biphenyls (UG_KG)								
4,4'-DDD	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
4,4'-DDE	4.6 UJ	NA	1.2 J	NA	4.5 U	NA	2.9 J	NA
4,4'-DDT	4.6 UJ	NA	1.7 J	NA	4.5 U	NA	2.5 J	NA
Aldrin	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
Aroclor-1016	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Aroclor-1221	93 UJ	NA	88 U	NA	92 U	NA	83 U	NA
Aroclor-1232	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Aroclor-1242	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Aroclor-1248	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Aroclor-1254	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Aroclor-1260	46 UJ	NA	43 U	NA	45 U	NA	41 U	NA
Dieldrin	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Endosulfan I	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
Endosulfan II	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Endosulfan sulfate	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Endrin	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Endrin aldehyde	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Endrin ketone	4.6 UJ	NA	4.3 U	NA	4.5 U	NA	4.1 U	NA
Heptachlor	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
Heptachlor epoxide	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
Methoxychlor	23 UJ	NA	22 U	NA	23 U	NA	21 U	NA
Toxaphene	230 UJ	NA	220 U	NA	230 U	NA	210 U	NA
alpha-BHC	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
alpha-Chlordane	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
beta-BHC	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
delta-BHC	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
gamma-BHC (Lindane)	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
gamma-Chlordane	2.3 UJ	NA	2.2 U	NA	2.3 U	NA	2.1 U	NA
Explosives (UG_KG)								
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M11		MR04-M12		MR04-M13		MR04-M14				MR04-M15		MR04-M16		MR04-M17		MR04-M18	
Sample ID	MR04-M11-0-1-07D	MR04-M11-07D	MR04-M12-0-1-07D	MR04-M12-07D	MR04-M13-0-1-07C	MR04-M13-07C	MR04-M14-0-1-07C	MR04-M14-07C	MR04-M14D-0-1-07C	MR04-M14D-07C	MR04-M15-0-1-07C	MR04-M15-07C	MR04-M16-0-1-07C	MR04-M16-07C	MR04-M17-0-1-07C	MR04-M17-07C	MR04-M18-0-1-07C	MR04-M18-07C
Sample Date	10/16/07	10/16/07	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	2,850	NA	3,910	NA	9,440	NA	7,200	NA	7,920	NA	3,500	NA	3,490	NA	2,990	NA	4,130	NA
Antimony	5.7 UJ	NA	0.33 J	NA	5.2 UJ	NA	5.2 UJ	NA	5.1 UJ	NA	6.8 UJ	NA	0.43 J	NA	6 UJ	NA	0.3 J	NA
Arsenic	0.88 J	NA	1.2	NA	2.4	NA	2.4	NA	2.4	NA	1.3 J	NA	0.82 J	NA	0.7 J	NA	1.2	NA
Barium	17.9 J	NA	12.2 J	NA	14.4 J	NA	16.4 J	NA	14.4 J	NA	12.9 J	NA	32.3	NA	11.5 J	NA	11.2 J	NA
Beryllium	0.035 J	NA	0.044 J	NA	0.059 J	NA	0.062 J	NA	0.075 J	NA	0.041 J	NA	0.073 J	NA	0.062 J	NA	0.066 J	NA
Cadmium	0.071 J	NA	0.04 J	NA	0.064 J	NA	0.041 J	NA	0.052 J	NA	0.046 J	NA	0.089 J	NA	0.039 J	NA	0.037 J	NA
Calcium	1,320	NA	616	NA	4,100	NA	435	NA	440	NA	176 J	NA	229 J	NA	699	NA	191 J	NA
Chromium	3.5	NA	4.9	NA	9	NA	8.5	NA	8.7	NA	3	NA	3.8	NA	2	NA	2.8	NA
Cobalt	0.12 J	NA	0.2 J	NA	0.36 J	NA	0.29 J	NA	0.3 J	NA	0.17 J	NA	0.18 J	NA	0.13 J	NA	0.14 J	NA
Copper	3.7	NA	7.6	NA	1.5 J	NA	1.4 J	NA	1.4 J	NA	0.75 U	NA	1.3 U	NA	1.3 U	NA	0.78 J	NA
Cyanide	3.1 U	NA	2.7 U	NA	2.9 U	NA	2.7 U	NA	2.9 U	NA	3.6 U	NA	2.8 U	NA	0.13 U	NA	3.3 U	NA
Iron	2,150	NA	2,930	NA	5,860 J	NA	4,610 J	NA	4,850 J	NA	2,030 J	NA	1,920 J	NA	1,420 J	NA	2,310	NA
Lead	18.3	NA	15.6	NA	9.5	NA	8.2	NA	7.7	NA	11.2	NA	18.8	NA	7	NA	7.1	NA
Magnesium	112 J	NA	143 J	NA	323 J	NA	265 J	NA	249 J	NA	98.9 J	NA	95.1 J	NA	84.1 J	NA	116 J	NA
Manganese	4.4	NA	7.4	NA	10.5 J	NA	12.6 J	NA	11.4 J	NA	7.2	NA	14.8	NA	14.6	NA	6.4	NA
Mercury	0.23 U	NA	0.2 U	NA	0.041 J	NA	0.046 J	NA	0.11 U	NA	0.023 J	NA	0.023 J	NA	0.025 J	NA	0.018 J	NA
Nickel	0.91 J	NA	1 J	NA	2.2 J	NA	1.5 J	NA	1.5 J	NA	0.93 J	NA	0.97 J	NA	0.97 J	NA	1.1 J	NA
Potassium	105 J	NA	143 J	NA	239 J	NA	317 J	NA	297 J	NA	84.3 J	NA	69.1 J	NA	28.4 J	NA	66.4 J	NA
Selenium	3.4 U	NA	3.6 U	NA	0.27 J	NA	3 U	NA	3 U	NA	3.9 U	NA	2.7 U	NA	3.5 U	NA	3.3 U	NA
Silver	0.96 U	NA	1 U	NA	0.87 U	NA	0.86 U	NA	0.84 U	NA	1.1 U	NA	0.78 U	NA	1 U	NA	0.94 U	NA
Sodium	479 U	NA	514 U	NA	27.5 J	NA	14.4 J	NA	15.1 J	NA	12.1 J	NA	15.1 J	NA	11.8 J	NA	16.7 J	NA
Thallium	2.4 U	NA	2.6 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.8 U	NA	2 U	NA	2.5 U	NA	2.3 U	NA
Vanadium	5.5	NA	7.6	NA	13	NA	12.1	NA	13.1	NA	5.4 J	NA	4.3 J	NA	3.1 J	NA	5.5	NA
Zinc	9.6 J	NA	19.5 J	NA	7.3	NA	5.6	NA	5.3	NA	14.6	NA	24.4	NA	8.2	NA	4 J	NA
Wet Chemistry (MG_KG)																		
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	0.0025 U	NA	0.0027 U	NA	0.0023 U	NA	0.0023 U	NA	0.0024 U	NA	0.0029 U	NA	0.0022 U	NA	0.0028 U	NA	0.0027 U	NA
RDX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M19		MR04-N01		MR04-N02		MR04-N03		MR04-N04		MR04-N05		MR04-N06		MR04-N07		MR04-N08	
Sample ID	MR04-M19-0-1-07C	MR04-M19-07C	MR04-N01-0-1-07D	MR04-N01-07D	MR04-N02-0-1-07C	MR04-N02-07C	MR04-N03-0-1-07D	MR04-N03-07D	MR04-N04-0-1-07D	MR04-N04-07D	MR04-N05-0-1-07D	MR04-N05-07D	MR04-N06-0-1-07D	MR04-N06-07D	MR04-N07-0-1-07D	MR04-N07-07D	MR04-N08-0-1-07D	MR04-N08-07D
Sample Date	09/10/07	09/10/07	10/17/07	10/17/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07	10/16/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,170	NA	2,700	NA	2,760	NA	1,470	NA	2,770	NA	2,230	NA	3,870	NA	4,970	NA	2,160	NA
Antimony	0.41 J	NA	6.3 UJ	NA	0.27 J	NA	4.6 U	NA	5.7 U	NA	4.8 U	NA	6.3 UJ	NA	5.4 UJ	NA	5.8 UJ	NA
Arsenic	1.6	NA	0.63 J	NA	0.79 J	NA	0.53 J	NA	1.3	NA	0.89	NA	1.4	NA	1.1	NA	0.96 J	NA
Barium	6.1 J	NA	15.1 J	NA	11.4 J	NA	5 J	NA	13.1 J	NA	9.7 J	NA	15.6 J	NA	16 J	NA	21	NA
Beryllium	0.6 U	NA	0.031 J	NA	0.038 J	NA	0.38 U	NA	0.082 J	NA	0.4 U	NA	0.025 J	NA	0.067 J	NA	0.015 J	NA
Cadmium	0.044 J	NA	0.53 U	NA	0.42 U	NA	0.38 U	NA	0.48 U	NA	0.4 U	NA	0.051 J	NA	0.45 U	NA	0.48 U	NA
Calcium	66.6 J	NA	156 J	NA	64.9 J	NA	383 U	NA	287 J	NA	156 J	NA	171 J	NA	202 J	NA	336 J	NA
Chromium	3.1	NA	2.3	NA	2.8 J	NA	1.9	NA	3.8	NA	2.8	NA	4.2	NA	4.1	NA	2.9	NA
Cobalt	0.12 J	NA	0.11 J	NA	0.22 J	NA	0.12 J	NA	0.19 J	NA	0.11 J	NA	0.18 J	NA	0.24 J	NA	0.11 J	NA
Copper	0.62 J	NA	0.47 J	NA	0.52 J	NA	0.36 J	NA	0.74 J	NA	0.53 J	NA	0.87 J	NA	0.85 J	NA	0.97 J	NA
Cyanide	3.5 U	NA	2.9 U	NA	2.7 U	NA	2.3 U	NA	3 U	NA	2.5 U	NA	3.2 U	NA	3 U	NA	3.2 U	NA
Iron	2,460	NA	1,270	NA	2,310	NA	1,130	NA	1,790	NA	1,990	NA	2,920	NA	2,890	NA	1,720	NA
Lead	8.2	NA	4.5	NA	4.7	NA	5.5	NA	8.6	NA	4	NA	8.7	NA	6.3	NA	4.8	NA
Magnesium	99.9 J	NA	64.1 J	NA	82.7 J	NA	60.6 J	NA	146 J	NA	79.4 J	NA	118 J	NA	91.8 J	NA	66.8 J	NA
Manganese	5.5	NA	8.7	NA	6.1 J	NA	9.3	NA	10.6	NA	11.9	NA	6.4	NA	6.6	NA	7.2	NA
Mercury	0.056 J	NA	0.26 U	NA	0.011 J	NA	0.01 J	NA	0.021 J	NA	0.0055 J	NA	0.27 U	NA	0.2 U	NA	0.12 U	NA
Nickel	0.79 J	NA	0.81 J	NA	0.67 J	NA	3.1 U	NA	3.8 U	NA	3.2 U	NA	0.78 J	NA	1.5 J	NA	0.55 J	NA
Potassium	82 J	NA	51.9 J	NA	106 J	NA	66.2 J	NA	138 J	NA	96.3 J	NA	155 J	NA	109 J	NA	94 J	NA
Selenium	4.2 U	NA	3.7 U	NA	3 U	NA	2.7 U	NA	0.24 J	NA	0.44 J	NA	3.7 U	NA	3.1 U	NA	3.4 U	NA
Silver	1.2 U	NA	1.1 U	NA	0.85 U	NA	0.77 U	NA	0.95 U	NA	0.79 U	NA	1.1 U	NA	0.9 U	NA	0.96 U	NA
Sodium	22.3 J	NA	526 U	NA	11.1 J	NA	383 U	NA	476 U	NA	397 U	NA	527 U	NA	448 U	NA	480 U	NA
Thallium	3 U	NA	2.6 U	NA	2.1 U	NA	1.9 U	NA	2.4 U	NA	2 U	NA	2.6 U	NA	2.2 U	NA	2.4 U	NA
Vanadium	6.4	NA	3.4 J	NA	4.8	NA	3.5 J	NA	5.5	NA	5.3	NA	7.4	NA	7.3	NA	4.4 J	NA
Zinc	2.3 J	NA	2.7 J	NA	3.2 J	NA	1.4 J	NA	3.6 J	NA	1.9 J	NA	3.3 J	NA	3.2 J	NA	2 J	NA
Wet Chemistry (MG_KG)																		
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	0.0031 U	NA	0.0028 U	NA	0.0022 U	NA	0.0021 U	NA	0.0026 U	NA	0.0021 U	NA	0.0029 U	NA	0.0024 U	NA	0.0027 U	NA
RDX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-N09		MR04-N10		MR04-N11		MR04-N12		MR04-N13		MR04-N14		MR04-N15		MR04-N16		MR04-O01	
Sample ID	MR04-N09-0-1-07D	MR04-N09-07D	MR04-N10-0-1-07C	MR04-N10-07C	MR04-N11-0-1-07C	MR04-N11-07C	MR04-N12-0-1-07C	MR04-N12-07C	MR04-N13-0-1-07C	MR04-N13-07C	MR04-N14-0-1-07C	MR04-N14-07C	MR04-N15-0-1-07C	MR04-N15-07C	MR04-N16-0-1-07C	MR04-N16-07C	MR04-O01-0-1-07C	MR04-O01-07C
Sample Date	10/16/07	10/16/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	4,370	NA	9,980	NA	8,560	NA	7,160	NA	5,320	NA	2,900	NA	4,090	NA	2,380	NA	2,930	NA
Antimony	6 UJ	NA	5.2 UJ	NA	0.33 J	NA	6 UJ	NA	0.28 J	NA	4.9 UJ	NA	5.2 UJ	NA	0.45 J	NA	4.9 UJ	NA
Arsenic	1	NA	2.4	NA	2.2	NA	1.9 J	NA	1.1 J	NA	0.68 J	NA	0.77 J	NA	1.3	NA	0.99	NA
Barium	14.1 J	NA	15.2 J	NA	12.5 J	NA	18.7 J	NA	21.2	NA	13.7 J	NA	13.8 J	NA	7.8 J	NA	9.8 J	NA
Beryllium	0.026 J	NA	0.13 J	NA	0.041 J	NA	0.082 J	NA	0.11 J	NA	0.07 J	NA	0.1 J	NA	0.44 U	NA	0.015 J	NA
Cadmium	0.5 U	NA	0.054 J	NA	0.5 U	NA	0.047 J	NA	0.059 J	NA	0.031 J	NA	0.43 U	NA	0.039 J	NA	0.03 J	NA
Calcium	360 J	NA	605	NA	1,010 J	NA	174 J	NA	729	NA	231 J	NA	142 J	NA	167 J	NA	168 J	NA
Chromium	3.7	NA	11.9	NA	11	NA	7.6	NA	4.7	NA	2	NA	2.1	NA	5.2	NA	2.6	NA
Cobalt	0.16 J	NA	0.52 J	NA	0.31 J	NA	0.3 J	NA	0.19 J	NA	0.15 J	NA	0.12 J	NA	0.3 J	NA	0.15 J	NA
Copper	0.66 J	NA	2.2 J	NA	1.5 J	NA	1.3 U	NA	1.5 J	NA	1.6 J	NA	0.99 J	NA	2.1 J	NA	0.52 J	NA
Cyanide	3 U	NA	2.7 U	NA	3.1 U	NA	2.7 U	NA	3 U	NA	2.6 U	NA	2.3 U	NA	2.8 U	NA	2.6 U	NA
Iron	2,420	NA	6,060 J	NA	4,840	NA	3,700 J	NA	2,780 J	NA	1,310	NA	1,560	NA	4,280	NA	1,860 J	NA
Lead	5.3	NA	6.8	NA	6.7	NA	8.6	NA	6.4	NA	5.5	NA	5.1	NA	20.1	NA	8.3	NA
Magnesium	77.9 J	NA	313 J	NA	299 J	NA	184 J	NA	145 J	NA	67.9 J	NA	86.6 J	NA	95.2 J	NA	95.3 J	NA
Manganese	6.8	NA	11.9 J	NA	8.5 J	NA	13.1	NA	32	NA	22.2	NA	14.2	NA	14.5	NA	8 J	NA
Mercury	0.19 U	NA	0.089	NA	0.11 U	NA	0.027 J	NA	0.017 J	NA	0.086 U	NA	0.02 J	NA	0.025 J	NA	0.033 J	NA
Nickel	1.2 J	NA	2.2 J	NA	1.6 J	NA	1.5 J	NA	1.4 J	NA	0.82 J	NA	1 J	NA	1.8 J	NA	0.75 J	NA
Potassium	105 J	NA	403 J	NA	339 J	NA	196 J	NA	85.3 J	NA	26.1 J	NA	33.3 J	NA	78.8 J	NA	95.1 J	NA
Selenium	3.5 U	NA	3 U	NA	0.45 J	NA	0.33 J	NA	2.9 U	NA	2.9 U	NA	3 U	NA	3.1 U	NA	0.25 J	NA
Silver	1 U	NA	0.86 U	NA	1 U	NA	1 U	NA	0.82 U	NA	0.82 U	NA	0.86 U	NA	0.87 U	NA	0.81 U	NA
Sodium	498 U	NA	19.9 J	NA	15.8 J	NA	12.2 J	NA	19.3 J	NA	10.3 J	NA	8 J	NA	12.3 J	NA	12.6 J	NA
Thallium	2.5 U	NA	2.2 U	NA	2.5 U	NA	2.5 U	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	2 U	NA
Vanadium	6.1	NA	15.4	NA	16	NA	10.5 J	NA	6 J	NA	2.3 J	NA	3.1 J	NA	4.2 J	NA	5.3	NA
Zinc	2.4 J	NA	4.5 J	NA	3.8 J	NA	6.5	NA	6.2	NA	26.4	NA	5.1 J	NA	5.9	NA	2.1 J	NA
Wet Chemistry (MG_KG)																		
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	0.0026 U	NA	0.0022 U	NA	0.0028 U	NA	0.0026 U	NA	0.0025 U	NA	0.0023 U	NA	0.0022 U	NA	0.0022 U	NA	0.0022 U	NA
RDX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
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NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-O02		MR04-O03		MR04-O04				MR04-O05		MR04-O06		MR04-O07		MR04-O08		MR04-O09	
Sample ID	MR04-O02-0-1-07C	MR04-O02-07C	MR04-O03-0-1-07C	MR04-O03-07C	MR04-O04-0-1-07C	MR04-O04-07C	MR04-O04D-0-1-07C	MR04-O04D-07C	MR04-O05-0-1-07C	MR04-O05-07C	MR04-O06-0-1-07C	MR04-O06-07C	MR04-O07-0-1-07C	MR04-O07-07C	MR04-O08-0-1-07C	MR04-O08-07C	MR04-O09-0-1-07C	MR04-O09-07C
Sample Date	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	5,300	NA	4,870	NA	7,440	NA	8,260	NA	4,390	NA	3,140	NA	3,520	NA	3,280	NA	3,700	NA
Antimony	5.1 UJ	NA	5.1 UJ	NA	5.1 UJ	NA	5.1 UJ	NA	5 UJ	NA	6.7 UJ	NA	5.7 UJ	NA	5.8 UJ	NA	6.1 UJ	NA
Arsenic	1.5	NA	1.2	NA	1.9	NA	2.5	NA	1	NA	1.2	NA	0.62 J	NA	0.68 J	NA	0.84 J	NA
Barium	15.9 J	NA	10.1 J	NA	10.9 J	NA	10.5 J	NA	10.1 J	NA	8.4 J	NA	12.8 J	NA	12.7 J	NA	11.8 J	NA
Beryllium	0.053 J	NA	0.43 U	NA	0.054 J	NA	0.073 J	NA	0.028 J	NA	0.019 J	NA	0.058 J	NA	0.043 J	NA	0.045 J	NA
Cadmium	0.034 J	NA	0.032 J	NA	0.042 J	NA	0.032 J	NA	0.03 J	NA	0.56 U	NA	0.48 U	NA	0.49 U	NA	0.047 J	NA
Calcium	427 U	NA	428 U	NA	424 U	NA	52.2 J	NA	60.7 J	NA	1,310	NA	87.2 J	NA	487 U	NA	77.5 J	NA
Chromium	4	NA	4.3	NA	7.8	NA	9	NA	3.4	NA	3.6	NA	2.5	NA	2.2	NA	2.9	NA
Cobalt	0.18 J	NA	0.22 J	NA	0.34 J	NA	0.38 J	NA	0.15 J	NA	0.2 J	NA	0.13 J	NA	0.14 J	NA	0.15 J	NA
Copper	0.55 J	NA	0.57 J	NA	1 J	NA	1.4 J	NA	0.57 J	NA	1.2 J	NA	1.1 J	NA	0.83 J	NA	0.89 J	NA
Cyanide	2.5 U	NA	2.2 U	NA	2.6 U	NA	2.9 U	NA	2.7 U	NA	3.4 U	NA	3.2 U	NA	3 U	NA	3.4 U	NA
Iron	2,810 J	NA	2,860 J	NA	3,970 J	NA	5,110 J	NA	1,980 J	NA	1,930	NA	1,600	NA	1,630	NA	1,870 J	NA
Lead	6.2	NA	3.8	NA	6.2	NA	7.7	NA	5.3	NA	6.3	NA	3.8	NA	3	NA	6.3	NA
Magnesium	126 J	NA	113 J	NA	200 J	NA	213 J	NA	126 J	NA	110 J	NA	103 J	NA	95.6 J	NA	129 J	NA
Manganese	8.6 J	NA	9.3 J	NA	10.7 J	NA	9.5 J	NA	10.2 J	NA	10.5	NA	23.4	NA	21.9	NA	18.1 J	NA
Mercury	0.045 J	NA	0.091 U	NA	0.033 J	NA	0.035 J	NA	0.11 U	NA	0.034 J	NA	0.028 J	NA	0.0072 J	NA	0.12 U	NA
Nickel	1.1 J	NA	1.1 J	NA	1.8 J	NA	1.7 J	NA	1 J	NA	1.1 J	NA	1.1 J	NA	1.1 J	NA	1.1 J	NA
Potassium	131 J	NA	139 J	NA	244 J	NA	247 J	NA	97.7 J	NA	108 J	NA	55.9 J	NA	45.4 J	NA	77.4 J	NA
Selenium	0.21 J	NA	3 U	NA	3 U	NA	0.26 J	NA	2.9 U	NA	0.43 J	NA	3.4 U	NA	3.4 U	NA	3.6 U	NA
Silver	0.85 U	NA	0.85 U	NA	0.85 U	NA	0.86 U	NA	0.83 U	NA	1.1 U	NA	0.96 U	NA	0.97 U	NA	1 U	NA
Sodium	12.3 J	NA	8.9 J	NA	14.3 J	NA	17.4 J	NA	9.5 J	NA	10.9 J	NA	11.5 J	NA	4.7 J	NA	15 J	NA
Thallium	2.1 U	NA	2.1 U	NA	2.1 U	NA	2.1 U	NA	2.1 U	NA	2.8 U	NA	2.4 U	NA	2.4 U	NA	2.6 U	NA
Vanadium	6.9	NA	7.3	NA	11	NA	13.6	NA	5.6	NA	4.9 J	NA	3.1 J	NA	2.9 J	NA	3.8 J	NA
Zinc	2.3 J	NA	1.6 J	NA	3.3 J	NA	3.7 J	NA	2.8 J	NA	5.9 J	NA	3.8 J	NA	3.2 J	NA	4 J	NA
Wet Chemistry (MG_KG)																		
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA
Perchlorate	0.0022 U	NA	0.0023 U	NA	0.0023 U	NA	0.0024 U	NA	0.0022 U	NA	0.003 U	NA	0.0026 U	NA	0.0026 U	NA	0.0027 U	NA
RDX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units M11 - P04
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-P01		MR04-P02		MR04-P03		MR04-P04	
Sample ID	MR04-P01-0-1-07C	MR04-P01-07C	MR04-P02-0-1-07C	MR04-P02-07C	MR04-P03-0-1-07C	MR04-P03-07C	MR04-P04-0-1-07C	MR04-P04-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name								
Total Metals (MG_KG)								
Aluminum	5,570	NA	4,760	NA	3,060	NA	3,000	NA
Antimony	6.2 UJ	NA	5.9 UJ	NA	6.1 UJ	NA	0.27 J	NA
Arsenic	1.4	NA	1.4	NA	0.68 J	NA	0.99	NA
Barium	8.9 J	NA	12.7 J	NA	7.7 J	NA	9.8 J	NA
Beryllium	0.024 J	NA	0.066 J	NA	0.026 J	NA	0.031 J	NA
Cadmium	0.52 U	NA	0.49 U	NA	0.51 U	NA	0.47 U	NA
Calcium	265 J	NA	182 J	NA	88.1 J	NA	91.9 J	NA
Chromium	5.1	NA	3.4	NA	2.7	NA	3.3	NA
Cobalt	0.2 J	NA	0.15 J	NA	0.15 J	NA	0.17 J	NA
Copper	0.73 J	NA	0.96 J	NA	0.79 J	NA	1.1 J	NA
Cyanide	3.5 U	NA	2.8 U	NA	3.4 U	NA	2.7 U	NA
Iron	2,750 J	NA	2,530	NA	1,550	NA	2,150	NA
Lead	7.8	NA	9.4	NA	3.9	NA	27.1	NA
Magnesium	169 J	NA	121 J	NA	86.5 J	NA	163 J	NA
Manganese	10.1 J	NA	10.6	NA	10.5	NA	4.1	NA
Mercury	0.041 J	NA	0.012 J	NA	0.013 J	NA	0.045 J	NA
Nickel	1.2 J	NA	1.2 J	NA	0.79 J	NA	0.96 J	NA
Potassium	144 J	NA	72 J	NA	58.4 J	NA	94.5 J	NA
Selenium	3.6 U	NA	3.5 U	NA	3.5 U	NA	3.3 U	NA
Silver	1 U	NA	0.99 U	NA	1 U	NA	0.93 U	NA
Sodium	17.2 J	NA	15.3 J	NA	13.5 J	NA	65.8 J	NA
Thallium	2.6 U	NA	2.5 U	NA	2.5 U	NA	2.3 U	NA
Vanadium	7.6	NA	5.3	NA	3.5 J	NA	5.4	NA
Zinc	3 J	NA	4.8 J	NA	2.6 J	NA	3.4 J	NA
Wet Chemistry (MG_KG)								
HMX	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate	0.0028 U	NA	0.0026 U	NA	0.0028 U	NA	0.0025 U	NA
RDX	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
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NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K01		MR04-K02		MR04-K03		MR04-K04		MR04-K05		MR04-K06		MR04-K07		MR04-K08	
Sample ID	MR04-K01-0-1-07D	MR04-K01-07D	MR04-K02-0-1-07D	MR04-K02-07D	MR04-K03-0-1-07D	MR04-K03-07D	MR04-K04-0-1-07D	MR04-K04-07D	MR04-K05-0-1-07D	MR04-K05-07D	MR04-K06-0-1-07D	MR04-K06-07D	MR04-K07-0-1-07D	MR04-K07-07D	MR04-K08-0-1-07D	MR04-K08-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
1,1,1-Trichloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,1,2,2-Tetrachloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,1,2-Trichloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,1-Dichloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,1-Dichloroethene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2,4-Trichlorobenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2-Dibromo-3-chloropropane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2-Dibromoethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2-Dichlorobenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2-Dichloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,2-Dichloropropane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,3-Dichlorobenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
1,4-Dichlorobenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
2-Butanone	NA	18	NA	15 UJ	NA	7.1 J	NA	18 U	NA	13 U	NA	23	NA	10 U	NA	24
2-Hexanone	NA	13 U	NA	15 UJ	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
4-Methyl-2-pentanone	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Acetone	NA	300 J	NA	200 J	NA	100 J	NA	130 J	NA	170 J	NA	620 J	NA	16 J	NA	810 J
Benzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Bromodichloromethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Bromoform	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Bromomethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Carbon disulfide	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Carbon tetrachloride	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Chlorobenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Chloroethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Chloroform	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Chloromethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Cyclohexane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Dibromochloromethane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Dichlorodifluoromethane (Freon-12)	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 UJ	NA	10 U	NA	13 U
Ethylbenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Isopropylbenzene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Methyl acetate	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Methyl-tert-butyl ether (MTBE)	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Methylcyclohexane	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 UJ	NA	16 U	NA	10 UJ	NA	13 UJ
Methylene chloride	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Styrene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Tetrachloroethene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Toluene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Trichloroethene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Trichlorofluoromethane(Freon-11)	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Vinyl chloride	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
Xylene, total	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
cis-1,2-Dichloroethene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
cis-1,3-Dichloropropene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
trans-1,2-Dichloroethene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U
trans-1,3-Dichloropropene	NA	13 U	NA	15 U	NA	14 U	NA	18 U	NA	13 U	NA	16 U	NA	10 U	NA	13 U

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K09				MR04-K10		MR04-K11		MR04-K12		MR04-K13		MR04-K14				MR04-K15	
Sample ID	MR04-K09-0-1-07C	MR04-K09-07C	MR04-K09D-0-1-07C	MR04-K09D-07C	MR04-K10-0-1-07C	MR04-K10-07C	MR04-K11-0-1-07C	MR04-K11-07C	MR04-K12-0-1-07C	MR04-K12-07C	MR04-K13-0-1-07C	MR04-K13-07C	MR04-K14-0-1-07C	MR04-K14-07C	MR04-K14D-0-1-07C	MR04-K14D-07C	MR04-K15-0-1-07C	MR04-K15-07C
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
1,1,2,2-Tetrachloroethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
1,1,2-Trichloroethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,1-Dichloroethane	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
1,1-Dichloroethene	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
1,2,4-Trichlorobenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,2-Dibromo-3-chloropropane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,2-Dibromoethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,2-Dichlorobenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,2-Dichloroethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
1,2-Dichloropropane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
1,3-Dichlorobenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
1,4-Dichlorobenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
2-Butanone	NA	13 U	NA	14 U	NA	8.3 J	NA	20	NA	7 J	NA	22	NA	12 U	NA	17 J	NA	10 J
2-Hexanone	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
4-Methyl-2-pentanone	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Acetone	NA	220	NA	170 J	NA	240 J	NA	470 J	NA	80 J	NA	770 J	NA	53	NA	180 J	NA	150 J
Benzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	2 J
Bromodichloromethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
Bromoform	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Bromomethane	NA	13 U	NA	14 U	NA	14 U	NA	18 UJ	NA	14 UJ	NA	16 UJ	NA	12 U	NA	11 UJ	NA	15 U
Carbon disulfide	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Carbon tetrachloride	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
Chlorobenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Chloroethane	NA	13 U	NA	14 U	NA	14 UJ	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Chloroform	NA	13 U	NA	14 U	NA	0.96 J	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Chloromethane	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Cyclohexane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
Dibromochloromethane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Dichlorodifluoromethane (Freon-12)	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Ethylbenzene	NA	13 UJ	NA	14 UJ	NA	5.3 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Isopropylbenzene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Methyl acetate	NA	280 J	NA	400 J	NA	14 U	NA	8.2 J	NA	11 J	NA	9.8 J	NA	12 J	NA	520 J	NA	850 J
Methyl-tert-butyl ether (MTBE)	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Methylcyclohexane	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
Methylene chloride	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Styrene	NA	13 UJ	NA	14 UJ	NA	1.2 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Tetrachloroethene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
Toluene	NA	24 J	NA	14 UJ	NA	1.3 J	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	3 J
Trichloroethene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
Trichlorofluoromethane(Freon-11)	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Vinyl chloride	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
Xylene, total	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ
cis-1,2-Dichloroethene	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
cis-1,3-Dichloropropene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 U	NA	15 UJ
trans-1,2-Dichloroethene	NA	13 U	NA	14 U	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 U	NA	11 UJ	NA	15 U
trans-1,3-Dichloropropene	NA	13 UJ	NA	14 UJ	NA	14 U	NA	18 U	NA	14 U	NA	16 U	NA	12 UJ	NA	11 UJ	NA	15 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K16		MR04-K17		MR04-K18		MR04-K19		MR04-K20		MR04-L01		MR04-L02		MR04-L03		MR04-L04	
Sample ID	MR04-K16-0-1-07C	MR04-K16-07C	MR04-K17-0-1-07C	MR04-K17-07C	MR04-K18-0-1-07C	MR04-K18-07C	MR04-K19-0-1-07C	MR04-K19-07C	MR04-K20-0-1-07C	MR04-K20-07C	MR04-L01-0-1-07D	MR04-L01-07D	MR04-L02-0-1-07D	MR04-L02-07D	MR04-L03-0-1-07D	MR04-L03-07D	MR04-L04-0-1-07D	MR04-L04-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,1,2,2-Tetrachloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,1,2-Trichloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,1-Dichloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,1-Dichloroethene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2,4-Trichlorobenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2-Dibromo-3-chloropropane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2-Dibromoethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2-Dichlorobenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2-Dichloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,2-Dichloropropane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,3-Dichlorobenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
1,4-Dichlorobenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
2-Butanone	NA	15 J	NA	3 J	NA	16 UJ	NA	9 J	NA	10 J	NA	19 J	NA	15	NA	19	NA	13 U
2-Hexanone	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
4-Methyl-2-pentanone	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Acetone	NA	240 J	NA	190 J	NA	230 J	NA	150 J	NA	270 J	NA	590 J	NA	380 J	NA	470 J	NA	760 J
Benzene	NA	3 J	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Bromodichloromethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Bromoform	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Bromomethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Carbon disulfide	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Carbon tetrachloride	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Chlorobenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Chloroethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Chloroform	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Chloromethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Cyclohexane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Dibromochloromethane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Dichlorodifluoromethane (Freon-12)	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Ethylbenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Isopropylbenzene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Methyl acetate	NA	110 J	NA	100 J	NA	550 J	NA	170 J	NA	420 J	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Methyl-tert-butyl ether (MTBE)	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Methylcyclohexane	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 UJ	NA	13 UJ
Methylene chloride	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Styrene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Tetrachloroethene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Toluene	NA	11 UJ	NA	6 J	NA	16 UJ	NA	11 UJ	NA	3 J	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Trichloroethene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Trichlorofluoromethane(Freon-11)	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Vinyl chloride	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
Xylene, total	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
cis-1,2-Dichloroethene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
cis-1,3-Dichloropropene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
trans-1,2-Dichloroethene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U
trans-1,3-Dichloropropene	NA	11 UJ	NA	13 UJ	NA	16 UJ	NA	11 UJ	NA	15 UJ	NA	17 U	NA	12 U	NA	11 U	NA	13 U

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L05		MR04-L06		MR04-L07		MR04-L08		MR04-L09		MR04-L10		MR04-L11		MR04-L12		MR04-L13	
Sample ID	MR04-L05-0-1-07D	MR04-L05-07D	MR04-L06-0-1-07D	MR04-L06-07D	MR04-L07-0-1-07C	MR04-L07-07C	MR04-L08-0-1-07C	MR04-L08-07C	MR04-L09-0-1-07C	MR04-L09-07C	MR04-L10-0-1-07C	MR04-L10-07C	MR04-L11-07C	MR04-L11-0-1-07C	MR04-L12-0-1-07C	MR04-L12-07C	MR04-L13-0-1-07C	MR04-L13-07C
Sample Date	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
1,1,2,2-Tetrachloroethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
1,1,2-Trichloroethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,1-Dichloroethane	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
1,1-Dichloroethene	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
1,2,4-Trichlorobenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,2-Dibromo-3-chloropropane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,2-Dibromoethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,2-Dichlorobenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,2-Dichloroethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,2-Dichloropropane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,3-Dichlorobenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
1,4-Dichlorobenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
2-Butanone	NA	21 J	NA	17 U	NA	13 U	NA	15 U	NA	20 J	NA	10 J	6 J	NA	NA	14 U	NA	7 J
2-Hexanone	NA	16 UJ	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
4-Methyl-2-pentanone	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Acetone	NA	400 J	NA	630 J	NA	130 J	NA	160 J	NA	740 J	NA	110	58	NA	NA	190	NA	150 J
Benzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	2 J	1 J	NA	NA	14 UJ	NA	16 UJ
Bromodichloromethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Bromoform	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Bromomethane	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Carbon disulfide	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Carbon tetrachloride	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Chlorobenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Chloroethane	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Chloroform	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Chloromethane	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Cyclohexane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Dibromochloromethane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Dichlorodifluoromethane (Freon-12)	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Ethylbenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Isopropylbenzene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Methyl acetate	NA	16 U	NA	17 U	NA	160	NA	350 J	NA	14 U	NA	69	140	NA	NA	730 J	NA	370 J
Methyl-tert-butyl ether (MTBE)	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Methylcyclohexane	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Methylene chloride	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Styrene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	110 J	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Tetrachloroethene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Toluene	NA	16 U	NA	17 U	NA	13 UJ	NA	3 J	NA	8.6 J	NA	3 J	2 J	NA	NA	1 J	NA	17 J
Trichloroethene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
Trichlorofluoromethane(Freon-11)	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Vinyl chloride	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
Xylene, total	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
cis-1,2-Dichloroethene	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
cis-1,3-Dichloropropene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 U	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ
trans-1,2-Dichloroethene	NA	16 U	NA	17 U	NA	13 U	NA	15 U	NA	14 U	NA	14 U	13 U	NA	NA	14 U	NA	16 UJ
trans-1,3-Dichloropropene	NA	16 U	NA	17 U	NA	13 UJ	NA	15 UJ	NA	14 UJ	NA	14 U	13 U	NA	NA	14 UJ	NA	16 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L14		MR04-L16		MR04-L17				MR04-L18		MR04-L19		MR04-M01		MR04-M02		MR04-M03	
Sample ID	MR04-L14-0-1-07C	MR04-L14-07C	MR04-L16-0-1-07C	MR04-L16-07C	MR04-L17-0-1-07C	MR04-L17D-0-1-07C	MR04-L17-07C	MR04-L17D-07C	MR04-L18-0-1-07C	MR04-L18-07C	MR04-L19-0-1-07C	MR04-L19-07C	MR04-M01-0-1-07D	MR04-M01-07D	MR04-M02-0-1-07D	MR04-M02-07D	MR04-M03-0-1-07D	MR04-M03-07D
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,1,2,2-Tetrachloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,1,2-Trichloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,1-Dichloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,1-Dichloroethene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2,4-Trichlorobenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2-Dibromo-3-chloropropane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2-Dibromoethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2-Dichlorobenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2-Dichloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,2-Dichloropropane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,3-Dichlorobenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
1,4-Dichlorobenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
2-Butanone	NA	14 J	NA	15 U	NA	NA	7 J	8 J	NA	15 J	NA	13 J	NA	6.4 J	NA	14 U	NA	8.1 J
2-Hexanone	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
4-Methyl-2-pentanone	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Acetone	NA	320 J	NA	47 J	NA	NA	130 J	100 J	NA	360 J	NA	300 J	NA	160 J	NA	59 J	NA	290 J
Benzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Bromodichloromethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Bromoform	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Bromomethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Carbon disulfide	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Carbon tetrachloride	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Chlorobenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Chloroethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Chloroform	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Chloromethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Cyclohexane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Dibromochloromethane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Dichlorodifluoromethane (Freon-12)	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 UJ	NA	12 UJ
Ethylbenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Isopropylbenzene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Methyl acetate	NA	370 J	NA	83 J	NA	NA	190 J	160 J	NA	620 J	NA	380 J	NA	15 U	NA	14 U	NA	12 U
Methyl-tert-butyl ether (MTBE)	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Methylcyclohexane	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 UJ	NA	14 U	NA	12 U
Methylene chloride	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Styrene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Tetrachloroethene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Toluene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	8 J	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Trichloroethene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Trichlorofluoromethane(Freon-11)	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Vinyl chloride	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
Xylene, total	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
cis-1,2-Dichloroethene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
cis-1,3-Dichloropropene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
trans-1,2-Dichloroethene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U
trans-1,3-Dichloropropene	NA	15 UJ	NA	15 U	NA	NA	13 U	11 UJ	NA	16 UJ	NA	12 UJ	NA	15 U	NA	14 U	NA	12 U

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M04		MR04-M05		MR04-M06		MR04-M07		MR04-M08				MR04-M09		MR04-M10	
Sample ID	MR04-M04-0-1-07C	MR04-M04-07C	MR04-M05-0-1-07C	MR04-M05-07C	MR04-M06-07D	MR04-M06-0-1-07D	MR04-M07-0-1-07D	MR04-M07-07D	MR04-M08-0-1-07D	MR04-M08-07D	MR04-M08D-0-1-07D	MR04-M08D-07D	MR04-M09-0-1-07D	MR04-M09-07D	MR04-M10-0-1-07D	MR04-M10-07D
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
1,1,1-Trichloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,1,2,2-Tetrachloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,1,2-Trichloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,1-Dichloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,1-Dichloroethene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,2,4-Trichlorobenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
1,2-Dibromo-3-chloropropane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,2-Dibromoethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,2-Dichlorobenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
1,2-Dichloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,2-Dichloropropane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
1,3-Dichlorobenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
1,4-Dichlorobenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
2-Butanone	NA	16 UJ	NA	11 U	6.2 J	NA	NA	8.6 J	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
2-Hexanone	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
4-Methyl-2-pentanone	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Acetone	NA	69 J	NA	43 J	100 J	NA	NA	200 J	NA	110 J	NA	270 J	NA	58 J	NA	18 J
Benzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Bromodichloromethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Bromoform	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Bromomethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Carbon disulfide	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Carbon tetrachloride	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Chlorobenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Chloroethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Chloroform	NA	16 UJ	NA	11 U	6.4 J	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Chloromethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Cyclohexane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Dibromochloromethane	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Dichlorodifluoromethane (Freon-12)	NA	16 UJ	NA	11 U	15 U	NA	NA	13 UJ	NA	13 UJ	NA	17 UJ	NA	13 U	NA	18 UJ
Ethylbenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Isopropylbenzene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Methyl acetate	NA	350 J	NA	22	4.6 J	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Methyl-tert-butyl ether (MTBE)	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Methylcyclohexane	NA	16 UJ	NA	11 U	15 U	NA	NA	13	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Methylene chloride	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Styrene	NA	16 UJ	NA	490 J	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Tetrachloroethene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Toluene	NA	16 UJ	NA	9 J	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Trichloroethene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18
Trichlorofluoromethane(Freon-11)	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
Vinyl chloride	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
Xylene, total	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
cis-1,2-Dichloroethene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
cis-1,3-Dichloropropene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U
trans-1,2-Dichloroethene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 UJ
trans-1,3-Dichloropropene	NA	16 UJ	NA	11 U	15 U	NA	NA	13 U	NA	13 U	NA	17 U	NA	13 U	NA	18 U

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K01		MR04-K02		MR04-K03		MR04-K04		MR04-K05		MR04-K06		MR04-K07		MR04-K08	
Sample ID	MR04-K01-0-1-07D	MR04-K01-07D	MR04-K02-0-1-07D	MR04-K02-07D	MR04-K03-0-1-07D	MR04-K03-07D	MR04-K04-0-1-07D	MR04-K04-07D	MR04-K05-0-1-07D	MR04-K05-07D	MR04-K06-0-1-07D	MR04-K06-07D	MR04-K07-0-1-07D	MR04-K07-07D	MR04-K08-0-1-07D	MR04-K08-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																
Semi-volatile Organic Compounds (UG_KG)																
1,1-Biphenyl	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,2'-Oxybis(1-chloropropane)	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,4,5-Trichlorophenol	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
2,4,6-Trichlorophenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,4-Dichlorophenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,4-Dimethylphenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,4-Dinitrophenol	1,100 UJ	NA	890 UJ	NA	1,000 UJ	NA	1,100 U	NA	890 UJ	NA	1,200 UJ	NA	930 UJ	NA	970 UJ	NA
2,4-Dinitrotoluene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2,6-Dinitrotoluene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2-Chloronaphthalene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2-Chlorophenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2-Methylnaphthalene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2-Methylphenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
2-Nitroaniline	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
2-Nitrophenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
3,3'-Dichlorobenzidine	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
3-Nitroaniline	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
4,6-Dinitro-2-methylphenol	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
4-Bromophenyl-phenylether	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
4-Chloro-3-methylphenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
4-Chloroaniline	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
4-Chlorophenyl-phenylether	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
4-Methylphenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
4-Nitroaniline	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
4-Nitrophenol	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
Acenaphthene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Acenaphthylene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Acetophenone	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Anthracene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Atrazine	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzaldehyde	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzo(a)anthracene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzo(a)pyrene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzo(b)fluoranthene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzo(g,h,i)perylene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Benzo(k)fluoranthene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Butylbenzylphthalate	440 U	NA	350 U	NA	420 U	NA	75 J	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Caprolactam	200 J	NA	350 U	NA	160 J	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Carbazole	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Chrysene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Di-n-butylphthalate	440 U	NA	3,000	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Di-n-octylphthalate	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Dibenz(a,h)anthracene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Dibenzofuran	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Diethylphthalate	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Dimethyl phthalate	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Fluoranthene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Fluorene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Hexachlorobenzene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Hexachlorobutadiene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Hexachlorocyclopentadiene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Hexachloroethane	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Indeno(1,2,3-cd)pyrene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Isophorone	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Naphthalene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Nitrobenzene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Pentachlorophenol	1,100 U	NA	890 U	NA	1,000 U	NA	1,100 U	NA	890 U	NA	1,200 U	NA	930 U	NA	970 U	NA
Phenanthrene	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Phenol	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
Pyrene	440 UJ	NA	350 UJ	NA	420 UJ	NA	430 U	NA	350 UJ	NA	460 UJ	NA	370 UJ	NA	380 UJ	NA
bis(2-Chloroethoxy)methane	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
bis(2-Chloroethyl)ether	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
bis(2-Ethylhexyl)phthalate	440 U	NA	350 U	NA	420 U	NA	210 J	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
n-Nitroso-di-n-propylamine	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA
n-Nitrosodiphenylamine	440 U	NA	350 U	NA	420 U	NA	430 U	NA	350 U	NA	460 U	NA	370 U	NA	380 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K09				MR04-K10		MR04-K11		MR04-K12		MR04-K13		MR04-K14				MR04-K15	
Sample ID	MR04-K09-0-1-07C	MR04-K09-07C	MR04-K09D-0-1-07C	MR04-K09D-07C	MR04-K10-0-1-07C	MR04-K10-07C	MR04-K11-0-1-07C	MR04-K11-07C	MR04-K12-0-1-07C	MR04-K12-07C	MR04-K13-0-1-07C	MR04-K13-07C	MR04-K14-0-1-07C	MR04-K14-07C	MR04-K14D-0-1-07C	MR04-K14D-07C	MR04-K15-0-1-07C	MR04-K15-07C
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,2'-Oxybis(1-chloropropane)	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,4,5-Trichlorophenol	950 U	NA	1,100 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
2,4,6-Trichlorophenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,4-Dichlorophenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,4-Dimethylphenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,4-Dinitrophenol	950 U	NA	1,100 U	NA	2,400 UJ	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 UJ	NA	940 U	NA	1,200 U	NA
2,4-Dinitrotoluene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2,6-Dinitrotoluene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2-Chloronaphthalene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2-Chlorophenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2-Methylnaphthalene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2-Methylphenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
2-Nitroaniline	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
2-Nitrophenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
3,3'-Dichlorobenzidine	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
3-Nitroaniline	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
4,6-Dinitro-2-methylphenol	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
4-Bromophenyl-phenylether	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
4-Chloro-3-methylphenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
4-Chloroaniline	380 U	NA	430 U	NA	930 U	NA	970 U	NA	860 U	NA	930 U	NA	400 U	NA	380 U	NA	460 U	NA
4-Chlorophenyl-phenylether	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
4-Methylphenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
4-Nitroaniline	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
4-Nitrophenol	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
Acenaphthene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Acenaphthylene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Acetophenone	380 U	NA	24 J	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Anthracene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	79 J	NA
Atrazine	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Benzaldehyde	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Benzo(a)anthracene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	76 J	NA	24 J	NA	760	NA
Benzo(a)pyrene	380 U	NA	430 U	NA	460 U	NA	45 J	NA	56 J	NA	470 U	NA	70 J	NA	25 J	NA	760	NA
Benzo(b)fluoranthene	380 U	NA	430 U	NA	460 U	NA	71 J	NA	81 J	NA	38 J	NA	140 J	NA	44 J	NA	1,400	NA
Benzo(g,h,i)perylene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	58 J	NA	470 U	NA	50 J	NA	380 U	NA	550	NA
Benzo(k)fluoranthene	380 U	NA	430 U	NA	460 U	NA	31 J	NA	39 J	NA	470 U	NA	80 J	NA	31 J	NA	1,300	NA
Butylbenzylphthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Caprolactam	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Carbazole	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	21 J	NA	380 U	NA	110 J	NA
Chrysene	380 U	NA	430 U	NA	460 U	NA	56 J	NA	65 J	NA	34 J	NA	140 J	NA	47 J	NA	1,300	NA
Di-n-butylphthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Di-n-octylphthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Dibenz(a,h)anthracene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Dibenzofuran	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Diethylphthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Dimethyl phthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Fluoranthene	380 U	NA	430 U	NA	460 U	NA	110 J	NA	96 J	NA	47 J	NA	130 J	NA	100 J	NA	2,000	NA
Fluorene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	25 J	NA
Hexachlorobenzene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Hexachlorobutadiene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Hexachlorocyclopentadiene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Hexachloroethane	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Indeno(1,2,3-cd)pyrene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	47 J	NA	470 U	NA	42 J	NA	380 U	NA	480	NA
Isophorone	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Naphthalene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Nitrobenzene	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Pentachlorophenol	950 U	NA	1,100 U	NA	2,400 U	NA	2,500 U	NA	2,200 U	NA	2,400 U	NA	1,000 U	NA	940 U	NA	1,200 U	NA
Phenanthrene	380 U	NA	430 U	NA	460 U	NA	44 J	NA	31 J	NA	470 U	NA	33 J	NA	30 J	NA	730	NA
Phenol	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
Pyrene	380 U	NA	430 U	NA	460 U	NA	84 J	NA	76 J	NA	36 J	NA	120 J	NA	79 J	NA	1,800	NA
bis(2-Chloroethoxy)methane	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
bis(2-Chloroethyl)ether	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
bis(2-Ethylhexyl)phthalate	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	45 J	NA	50 J	NA	260 J	NA
n-Nitroso-di-n-propylamine	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA
n-Nitrosodiphenylamine	380 U	NA	430 U	NA	460 U	NA	490 U	NA	430 U	NA	470 U	NA	400 U	NA	380 U	NA	460 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K16		MR04-K17		MR04-K18		MR04-K19		MR04-K20		MR04-L01		MR04-L02		MR04-L03		MR04-L04	
Sample ID	MR04-K16-0-1-07C	MR04-K16-07C	MR04-K17-0-1-07C	MR04-K17-07C	MR04-K18-0-1-07C	MR04-K18-07C	MR04-K19-0-1-07C	MR04-K19-07C	MR04-K20-0-1-07C	MR04-K20-07C	MR04-L01-0-1-07D	MR04-L01-07D	MR04-L02-0-1-07D	MR04-L02-07D	MR04-L03-0-1-07D	MR04-L03-07D	MR04-L04-0-1-07D	MR04-L04-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,4,5-Trichlorophenol	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
2,4,6-Trichlorophenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,4-Dichlorophenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,4-Dimethylphenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,4-Dinitrophenol	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 UJ	NA	890 UJ	NA	890 UJ	NA	880 UJ	NA
2,4-Dinitrotoluene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2,6-Dinitrotoluene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2-Chloronaphthalene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2-Chlorophenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2-Methylnaphthalene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2-Methylphenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
2-Nitroaniline	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
2-Nitrophenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
3,3'-Dichlorobenzidine	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
3-Nitroaniline	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
4,6-Dinitro-2-methylphenol	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
4-Bromophenyl-phenylether	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
4-Chloro-3-methylphenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
4-Chloroaniline	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
4-Chlorophenyl-phenylether	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
4-Methylphenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
4-Nitroaniline	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
4-Nitrophenol	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
Acenaphthene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Acenaphthylene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Acetophenone	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Anthracene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Atrazine	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzaldehyde	370 U	NA	380 U	NA	370 U	NA	400 U	NA	50 J	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzo(a)anthracene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzo(a)pyrene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzo(b)fluoranthene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzo(g,h,i)perylene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Benzo(k)fluoranthene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Butylbenzylphthalate	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Caprolactam	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Carbazole	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Chrysene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Di-n-butylphthalate	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Di-n-octylphthalate	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Dibenz(a,h)anthracene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Dibenzofuran	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Diethylphthalate	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Dimethyl phthalate	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Fluoranthene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Fluorene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Hexachlorobenzene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Hexachlorobutadiene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Hexachlorocyclopentadiene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Hexachloroethane	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Isophorone	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Naphthalene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Nitrobenzene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Pentachlorophenol	930 U	NA	970 U	NA	940 U	NA	1,000 U	NA	950 U	NA	1,100 U	NA	890 U	NA	890 U	NA	880 U	NA
Phenanthrene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Phenol	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
Pyrene	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 UJ	NA	360 UJ	NA	350 UJ	NA	350 UJ	NA
bis(2-Chloroethoxy)methane	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
bis(2-Chloroethyl)ether	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
bis(2-Ethylhexyl)phthalate	190 J	NA	36 J	NA	40 J	NA	400 J	NA	270 J	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA
n-Nitrosodiphenylamine	370 U	NA	380 U	NA	370 U	NA	400 U	NA	380 U	NA	420 U	NA	360 U	NA	350 U	NA	350 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L05		MR04-L06		MR04-L07		MR04-L08		MR04-L09		MR04-L10		MR04-L11		MR04-L12		MR04-L13	
Sample ID	MR04-L05-0-1-07D	MR04-L05-07D	MR04-L06-0-1-07D	MR04-L06-07D	MR04-L07-0-1-07C	MR04-L07-07C	MR04-L08-0-1-07C	MR04-L08-07C	MR04-L09-0-1-07C	MR04-L09-07C	MR04-L10-0-1-07C	MR04-L10-07C	MR04-L11-07C	MR04-L11-0-1-07C	MR04-L12-0-1-07C	MR04-L12-07C	MR04-L13-0-1-07C	MR04-L13-07C
Sample Date	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,2'-Oxybis(1-chloropropane)	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,4,5-Trichlorophenol	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	420 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,4-Dichlorophenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,4-Dimethylphenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,4-Dinitrophenol	1,300 U	NA	1,100 U	NA	980 UJ	NA	910 U	NA	2,200 UJ	NA	1,200 UJ	NA	NA	1,000 UJ	950 UJ	NA	1,100 UJ	NA
2,4-Dinitrotoluene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2,6-Dinitrotoluene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2-Chloronaphthalene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2-Chlorophenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2-Methylnaphthalene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2-Methylphenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
2-Nitroaniline	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
2-Nitrophenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
3,3'-Dichlorobenzidine	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
3-Nitroaniline	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	1,300 U	NA	1,100 U	NA	980 UJ	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
4-Chloro-3-methylphenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
4-Chloroaniline	510 U	NA	440 U	NA	390 U	NA	360 U	NA	850 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
4-Chlorophenyl-phenylether	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
4-Methylphenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
4-Nitroaniline	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
4-Nitrophenol	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
Acenaphthene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Acenaphthylene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Acetophenone	28 J	NA	22 J	NA	390 U	NA	25 J	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Anthracene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Atrazine	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Benzaldehyde	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Benzo(a)anthracene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	110 J	380 U	NA	450 U	NA
Benzo(a)pyrene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	120 J	380 U	NA	450 U	NA
Benzo(b)fluoranthene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	220 J	380 U	NA	450 U	NA
Benzo(g,h,i)perylene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	95 J	380 U	NA	450 U	NA
Benzo(k)fluoranthene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	120 J	380 U	NA	450 U	NA
Butylbenzylphthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Caprolactam	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Carbazole	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	22 J	380 U	NA	450 U	NA
Chrysene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	25 J	NA	NA	200 J	380 U	NA	450 U	NA
Di-n-butylphthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	38 J	NA
Di-n-octylphthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Dibenz(a,h)anthracene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Dibenzofuran	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Diethylphthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Dimethyl phthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Fluoranthene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	52 J	NA	NA	440	380 U	NA	450 U	NA
Fluorene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Hexachlorobenzene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Hexachlorobutadiene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Hexachlorocyclopentadiene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Hexachloroethane	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	81 J	380 U	NA	450 U	NA
Isophorone	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Naphthalene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Nitrobenzene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Pentachlorophenol	1,300 U	NA	1,100 U	NA	980 U	NA	910 U	NA	2,200 U	NA	1,200 U	NA	NA	1,000 U	950 U	NA	1,100 U	NA
Phenanthrene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	130 J	380 U	NA	450 U	NA
Phenol	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
Pyrene	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	32 J	NA	NA	300 J	380 U	NA	450 U	NA
bis(2-Chloroethoxy)methane	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
bis(2-Chloroethyl)ether	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	30 J	NA	NA	69 J	41 J	NA	82 J	NA
n-Nitroso-di-n-propylamine	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA
n-Nitrosodiphenylamine	510 U	NA	440 U	NA	390 U	NA	360 U	NA	420 U	NA	460 U	NA	NA	410 U	380 U	NA	450 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L14		MR04-L16		MR04-L17				MR04-L18		MR04-L19		MR04-M01		MR04-M02		MR04-M03	
Sample ID	MR04-L14-0-1-07C	MR04-L14-07C	MR04-L16-0-1-07C	MR04-L16-07C	MR04-L17-0-1-07C	MR04-L17D-0-1-07C	MR04-L17-07C	MR04-L17D-07C	MR04-L18-0-1-07C	MR04-L18-07C	MR04-L19-0-1-07C	MR04-L19-07C	MR04-M01-0-1-07D	MR04-M01-07D	MR04-M02-0-1-07D	MR04-M02-07D	MR04-M03-0-1-07D	MR04-M03-07D
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,4,5-Trichlorophenol	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
2,4,6-Trichlorophenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,4-Dichlorophenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,4-Dimethylphenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,4-Dinitrophenol	940 UJ	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 UJ	NA	900 U	NA	890 U	NA
2,4-Dinitrotoluene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2,6-Dinitrotoluene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2-Chloronaphthalene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2-Chlorophenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2-Methylnaphthalene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2-Methylphenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
2-Nitroaniline	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
2-Nitrophenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
3,3'-Dichlorobenzidine	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
3-Nitroaniline	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
4,6-Dinitro-2-methylphenol	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
4-Bromophenyl-phenylether	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
4-Chloro-3-methylphenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
4-Chloroaniline	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
4-Chlorophenyl-phenylether	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
4-Methylphenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
4-Nitroaniline	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
4-Nitrophenol	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
Acenaphthene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Acenaphthylene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Acetophenone	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	25 J	NA	360 U	NA	350 U	NA
Anthracene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Atrazine	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzaldehyde	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzo(a)anthracene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzo(a)pyrene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzo(b)fluoranthene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzo(g,h,i)perylene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Benzo(k)fluoranthene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Butylbenzylphthalate	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Caprolactam	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Carbazole	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Chrysene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Di-n-butylphthalate	370 U	NA	390 U	NA	21 J	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Di-n-octylphthalate	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Dibenz(a,h)anthracene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Dibenzofuran	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Diethylphthalate	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Dimethyl phthalate	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Fluoranthene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Fluorene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Hexachlorobenzene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Hexachlorobutadiene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Hexachlorocyclopentadiene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Hexachloroethane	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Isophorone	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Naphthalene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Nitrobenzene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Pentachlorophenol	940 U	NA	990 U	NA	920 U	910 U	NA	NA	1,200 U	NA	910 U	NA	1,100 U	NA	900 U	NA	890 U	NA
Phenanthrene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Phenol	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
Pyrene	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 UJ	NA	360 U	NA	350 U	NA
bis(2-Chloroethoxy)methane	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
bis(2-Chloroethyl)ether	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
bis(2-Ethylhexyl)phthalate	51 J	NA	200 J	NA	54 J	42 J	NA	NA	51 J	NA	230 J	NA	440 U	NA	69 J	NA	48 J	NA
n-Nitroso-di-n-propylamine	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA
n-Nitrosodiphenylamine	370 U	NA	390 U	NA	370 U	360 U	NA	NA	480 U	NA	360 U	NA	440 U	NA	360 U	NA	350 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M04		MR04-M05		MR04-M06		MR04-M07		MR04-M08				MR04-M09		MR04-M10	
Sample ID	MR04-M04-0-1-07C	MR04-M04-07C	MR04-M05-0-1-07C	MR04-M05-07C	MR04-M06-07D	MR04-M06-0-1-07D	MR04-M07-0-1-07D	MR04-M07-07D	MR04-M08-0-1-07D	MR04-M08-07D	MR04-M08D-0-1-07D	MR04-M08D-07D	MR04-M09-0-1-07D	MR04-M09-07D	MR04-M10-0-1-07D	MR04-M10-07D
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07
Chemical Name																
Semi-volatile Organic Compounds (UG_KG)																
1,1-Biphenyl	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,2'-Oxybis(1-chloropropane)	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,4,5-Trichlorophenol	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 U	NA	1,100 U	NA	940 U	NA	900 U	NA
2,4,6-Trichlorophenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,4-Dichlorophenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,4-Dimethylphenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,4-Dinitrophenol	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 UJ	NA	1,100 UJ	NA	940 UJ	NA	900 UJ	NA
2,4-Dinitrotoluene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2,6-Dinitrotoluene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2-Chloronaphthalene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2-Chlorophenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2-Methylnaphthalene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2-Methylphenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
2-Nitroaniline	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 U	NA	1,100 U	NA	940 U	NA	900 U	NA
2-Nitrophenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
3,3'-Dichlorobenzidine	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
3-Nitroaniline	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 U	NA	1,100 U	NA	940 U	NA	900 U	NA
4,6-Dinitro-2-methylphenol	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 UJ	NA	1,100 UJ	NA	940 UJ	NA	900 UJ	NA
4-Bromophenyl-phenylether	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
4-Chloro-3-methylphenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
4-Chloroaniline	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
4-Chlorophenyl-phenylether	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
4-Methylphenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
4-Nitroaniline	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 U	NA	1,100 U	NA	940 U	NA	900 U	NA
4-Nitrophenol	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 U	NA	1,100 U	NA	940 U	NA	900 U	NA
Acenaphthene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Acenaphthylene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Acetophenone	430 U	NA	21 J	NA	NA	460 U	350 U	NA	23 J	NA	30 J	NA	19 J	NA	17 J	NA
Anthracene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Atrazine	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzaldehyde	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzo(a)anthracene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzo(a)pyrene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzo(b)fluoranthene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzo(g,h,i)perylene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Benzo(k)fluoranthene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Butylbenzylphthalate	430 U	NA	380 U	NA	NA	460 U	22 J	NA	370 U	NA	29 J	NA	380 U	NA	24 J	NA
Caprolactam	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Carbazole	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Chrysene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Di-n-butylphthalate	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	23 J	NA	360 U	NA
Di-n-octylphthalate	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 UJ	NA	430 UJ	NA	380 UJ	NA	360 UJ	NA
Dibenz(a,h)anthracene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Dibenzofuran	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Diethylphthalate	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Dimethyl phthalate	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Fluoranthene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Fluorene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Hexachlorobenzene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Hexachlorobutadiene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Hexachlorocyclopentadiene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 UJ	NA	430 UJ	NA	380 UJ	NA	360 UJ	NA
Hexachloroethane	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Isophorone	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Naphthalene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Nitrobenzene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Pentachlorophenol	1,100 U	NA	960 U	NA	NA	1,200 U	880 U	NA	920 UJ	NA	1,100 UJ	NA	940 UJ	NA	900 UJ	NA
Phenanthrene	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Phenol	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
Pyrene	430 U	NA	380 U	NA	NA	460 UJ	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
bis(2-Chloroethoxy)methane	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
bis(2-Chloroethyl)ether	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
bis(2-Ethylhexyl)phthalate	430 U	NA	380 U	NA	NA	460 U	59 J	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
n-Nitroso-di-n-propylamine	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA
n-Nitrosodiphenylamine	430 U	NA	380 U	NA	NA	460 U	350 U	NA	370 U	NA	430 U	NA	380 U	NA	360 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K01		MR04-K02		MR04-K03		MR04-K04		MR04-K05		MR04-K06		MR04-K07		MR04-K08	
Sample ID	MR04-K01-0-1-07D	MR04-K01-07D	MR04-K02-0-1-07D	MR04-K02-07D	MR04-K03-0-1-07D	MR04-K03-07D	MR04-K04-0-1-07D	MR04-K04-07D	MR04-K05-0-1-07D	MR04-K05-07D	MR04-K06-0-1-07D	MR04-K06-07D	MR04-K07-0-1-07D	MR04-K07-07D	MR04-K08-0-1-07D	MR04-K08-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
4,4'-DDE	4.4 U	NA	3.4 J	NA	11	NA	32	NA	4.2	NA	2.4 J	NA	2.4 J	NA	2.2 J	NA
4,4'-DDT	4.4 U	NA	5.1	NA	2.5 J	NA	6	NA	2.7 J	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Aldrin	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
Aroclor-1016	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Aroclor-1221	89 U	NA	72 U	NA	85 U	NA	87 U	NA	72 U	NA	93 U	NA	75 U	NA	78 U	NA
Aroclor-1232	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Aroclor-1242	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Aroclor-1248	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Aroclor-1254	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Aroclor-1260	44 U	NA	35 U	NA	42 U	NA	43 U	NA	36 U	NA	46 U	NA	37 U	NA	38 U	NA
Dieldrin	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Endosulfan I	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
Endosulfan II	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Endosulfan sulfate	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Endrin	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Endrin aldehyde	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Endrin ketone	4.4 U	NA	3.5 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA	4.6 U	NA	3.7 U	NA	3.8 U	NA
Heptachlor	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
Heptachlor epoxide	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
Methoxychlor	23 U	NA	18 U	NA	22 U	NA	22 U	NA	18 U	NA	24 U	NA	19 U	NA	20 U	NA
Toxaphene	230 U	NA	180 U	NA	220 U	NA	220 U	NA	180 U	NA	240 U	NA	190 U	NA	200 U	NA
alpha-BHC	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
alpha-Chlordane	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
beta-BHC	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
delta-BHC	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
gamma-BHC (Lindane)	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
gamma-Chlordane	2.3 U	NA	1.8 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA	2.4 U	NA	1.9 U	NA	2 U	NA
Explosives (UG_KG)																
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K09				MR04-K10		MR04-K11		MR04-K12		MR04-K13		MR04-K14				MR04-K15	
Sample ID	MR04-K09-0-1-07C	MR04-K09-07C	MR04-K09D-0-1-07C	MR04-K09D-07C	MR04-K10-0-1-07C	MR04-K10-07C	MR04-K11-0-1-07C	MR04-K11-07C	MR04-K12-0-1-07C	MR04-K12-07C	MR04-K13-0-1-07C	MR04-K13-07C	MR04-K14-0-1-07C	MR04-K14-07C	MR04-K14D-0-1-07C	MR04-K14D-07C	MR04-K15-0-1-07C	MR04-K15-07C
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.8 U	NA	4.3 U	NA	4.7 U	NA	5.5 J	NA	1.3 J	NA	0.66 J	NA	4 U	NA	3.8 U	NA	3.7 J	NA
4,4'-DDE	2.6 J	NA	6.2	NA	6.7	NA	23	NA	28	NA	9.4	NA	5.5	NA	6.3 J	NA	40 J	NA
4,4'-DDT	3.8 U	NA	2.2 J	NA	6.1	NA	22	NA	12 J	NA	9.4 J	NA	12	NA	13	NA	45	NA
Aldrin	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	0.28 J	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
Aroclor-1016	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Aroclor-1221	77 U	NA	88 U	NA	95 U	NA	98 U	NA	87 U	NA	93 U	NA	81 U	NA	76 U	NA	94 U	NA
Aroclor-1232	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Aroclor-1242	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Aroclor-1248	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Aroclor-1254	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Aroclor-1260	38 U	NA	43 U	NA	47 U	NA	48 U	NA	43 U	NA	46 U	NA	40 U	NA	38 U	NA	47 U	NA
Dieldrin	3.8 U	NA	4.3 U	NA	1.3 J	NA	20	NA	1.6 J	NA	1.1 J	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Endosulfan I	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
Endosulfan II	3.8 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Endosulfan sulfate	3.8 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Endrin	3.8 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Endrin aldehyde	3.8 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Endrin ketone	3.8 U	NA	4.3 U	NA	4.7 U	NA	4.8 U	NA	4.3 U	NA	4.6 U	NA	4 U	NA	3.8 U	NA	4.7 U	NA
Heptachlor	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
Heptachlor epoxide	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
Methoxychlor	20 U	NA	22 U	NA	24 U	NA	25 U	NA	22 U	NA	24 U	NA	20 U	NA	19 U	NA	24 U	NA
Toxaphene	200 U	NA	220 U	NA	240 U	NA	250 U	NA	220 U	NA	240 U	NA	200 U	NA	190 U	NA	240 U	NA
alpha-BHC	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
alpha-Chlordane	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	1.2 J	NA
beta-BHC	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
delta-BHC	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
gamma-BHC (Lindane)	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
gamma-Chlordane	2 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.2 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2.4 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K16		MR04-K17		MR04-K18		MR04-K19		MR04-K20		MR04-L01		MR04-L02		MR04-L03		MR04-L04	
Sample ID	MR04-K16-0-1-07C	MR04-K16-07C	MR04-K17-0-1-07C	MR04-K17-07C	MR04-K18-0-1-07C	MR04-K18-07C	MR04-K19-0-1-07C	MR04-K19-07C	MR04-K20-0-1-07C	MR04-K20-07C	MR04-L01-0-1-07D	MR04-L01-07D	MR04-L02-0-1-07D	MR04-L02-07D	MR04-L03-0-1-07D	MR04-L03-07D	MR04-L04-0-1-07D	MR04-L04-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	17	NA	3.8 U	NA	3.7 U	NA	11	NA	3.5 J	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
4,4'-DDE	130	NA	7.5	NA	35	NA	390	NA	120	NA	4.2 U	NA	2.6 J	NA	3.5 U	NA	2.1 J	NA
4,4'-DDT	150	NA	7.7	NA	19	NA	140	NA	49	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Aldrin	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
Aroclor-1016	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Aroclor-1221	75 U	NA	78 U	NA	76 U	NA	80 U	NA	77 U	NA	85 U	NA	72 U	NA	72 U	NA	71 UJ	NA
Aroclor-1232	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Aroclor-1242	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Aroclor-1248	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Aroclor-1254	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Aroclor-1260	37 U	NA	38 U	NA	37 U	NA	39 U	NA	38 U	NA	42 U	NA	35 U	NA	35 U	NA	35 UJ	NA
Dieldrin	7.2	NA	3.4 J	NA	6.7	NA	190	NA	63	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Endosulfan I	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
Endosulfan II	3.7 U	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Endosulfan sulfate	3.7 U	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Endrin	3.7 U	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Endrin aldehyde	3.7 U	NA	3.2 J	NA	3.7 U	NA	2.1 J	NA	2.4 J	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Endrin ketone	3.7 U	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	3.8 U	NA	4.2 U	NA	3.5 U	NA	3.5 U	NA	3.5 UJ	NA
Heptachlor	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
Heptachlor epoxide	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
Methoxychlor	19 U	NA	20 U	NA	19 U	NA	20 U	NA	20 U	NA	22 U	NA	18 U	NA	18 U	NA	18 UJ	NA
Toxaphene	190 U	NA	200 U	NA	190 U	NA	200 U	NA	200 U	NA	220 U	NA	180 U	NA	180 U	NA	180 UJ	NA
alpha-BHC	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
alpha-Chlordane	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
beta-BHC	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
delta-BHC	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
gamma-BHC (Lindane)	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
gamma-Chlordane	1.9 U	NA	2 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.8 U	NA	1.8 U	NA	1.8 UJ	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L05		MR04-L06		MR04-L07		MR04-L08		MR04-L09		MR04-L10		MR04-L11		MR04-L12		MR04-L13	
Sample ID	MR04-L05-0-1-07D	MR04-L05-07D	MR04-L06-0-1-07D	MR04-L06-07D	MR04-L07-0-1-07C	MR04-L07-07C	MR04-L08-0-1-07C	MR04-L08-07C	MR04-L09-0-1-07C	MR04-L09-07C	MR04-L10-0-1-07C	MR04-L10-07C	MR04-L11-07C	MR04-L11-0-1-07C	MR04-L12-0-1-07C	MR04-L12-07C	MR04-L13-0-1-07C	MR04-L13-07C
Sample Date	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	22	NA	NA	28	3.8 U	NA	4.5 U	NA
4,4'-DDE	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	0.79 J	NA	44	NA	NA	160	7.6	NA	31	NA
4,4'-DDT	8.1	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	56	NA	NA	370	4.9	NA	20 J	NA
Aldrin	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
Aroclor-1016	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	45 U	NA
Aroclor-1221	100 U	NA	89 U	NA	79 U	NA	74 U	NA	86 U	NA	93 U	NA	NA	83 U	77 U	NA	92 U	NA
Aroclor-1232	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	45 U	NA
Aroclor-1242	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	45 U	NA
Aroclor-1248	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	45 U	NA
Aroclor-1254	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	110	NA
Aroclor-1260	51 U	NA	44 U	NA	39 U	NA	36 U	NA	42 U	NA	46 U	NA	NA	41 U	38 U	NA	46	NA
Dieldrin	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	5.2 J	NA
Endosulfan I	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
Endosulfan II	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	4.5 U	NA
Endosulfan sulfate	6.8 J	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	4.5 U	NA
Endrin	8.9 J	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	4.5 U	NA
Endrin aldehyde	6.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	4.5 U	NA
Endrin ketone	5.1 U	NA	4.4 U	NA	3.9 U	NA	3.6 U	NA	4.2 U	NA	4.6 U	NA	NA	4.1 U	3.8 U	NA	4.5 U	NA
Heptachlor	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
Heptachlor epoxide	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
Methoxychlor	26 U	NA	23 U	NA	20 U	NA	19 U	NA	22 U	NA	24 U	NA	NA	21 U	20 U	NA	23 U	NA
Toxaphene	260 U	NA	230 U	NA	200 U	NA	190 U	NA	220 U	NA	240 U	NA	NA	210 U	200 U	NA	230 U	NA
alpha-BHC	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
alpha-Chlordane	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
beta-BHC	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
delta-BHC	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
gamma-BHC (Lindane)	2.6 U	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
gamma-Chlordane	4.2	NA	2.3 U	NA	2 U	NA	1.9 U	NA	2.2 U	NA	2.4 U	NA	NA	2.1 U	2 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 UJ	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L14		MR04-L16		MR04-L17				MR04-L18		MR04-L19		MR04-M01		MR04-M02		MR04-M03	
Sample ID	MR04-L14-0-1-07C	MR04-L14-07C	MR04-L16-0-1-07C	MR04-L16-07C	MR04-L17-0-1-07C	MR04-L17D-0-1-07C	MR04-L17-07C	MR04-L17D-07C	MR04-L18-0-1-07C	MR04-L18-07C	MR04-L19-0-1-07C	MR04-L19-07C	MR04-M01-0-1-07D	MR04-M01-07D	MR04-M02-0-1-07D	MR04-M02-07D	MR04-M03-0-1-07D	MR04-M03-07D
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.7 U	NA	3.9 U	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
4,4'-DDE	40	NA	12	NA	9.1	6.8	NA	NA	35	NA	19	NA	4.4 U	NA	2.8 J	NA	3.6 U	NA
4,4'-DDT	16	NA	10	NA	4.9	3.6 J	NA	NA	41	NA	9	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Aldrin	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
Aroclor-1016	37 U	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Aroclor-1221	76 U	NA	80 U	NA	75 U	74 U	NA	NA	97 U	NA	74 U	NA	89 U	NA	73 U	NA	72 U	NA
Aroclor-1232	37 U	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Aroclor-1242	37 U	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Aroclor-1248	37 U	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Aroclor-1254	37 U	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Aroclor-1260	21 J	NA	39 U	NA	37 U	36 U	NA	NA	48 U	NA	36 U	NA	44 U	NA	36 U	NA	36 U	NA
Dieldrin	19	NA	3.1 J	NA	3.7 U	3.6 U	NA	NA	8.8	NA	1.8 J	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Endosulfan I	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
Endosulfan II	3.7 U	NA	3.9 U	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Endosulfan sulfate	3.7 U	NA	3.9 U	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Endrin	3.7 U	NA	3.9 U	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Endrin aldehyde	3.8 J	NA	2.6 J	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	4 U	NA	3.6 U	NA
Endrin ketone	3.7 U	NA	3.9 U	NA	3.7 U	3.6 U	NA	NA	4.8 U	NA	3.6 U	NA	4.4 U	NA	3.6 U	NA	3.6 U	NA
Heptachlor	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
Heptachlor epoxide	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
Methoxychlor	19 U	NA	20 U	NA	19 U	19 U	NA	NA	25 U	NA	19 U	NA	23 U	NA	19 U	NA	18 U	NA
Toxaphene	190 U	NA	200 U	NA	190 U	190 U	NA	NA	250 U	NA	190 U	NA	230 U	NA	190 U	NA	180 U	NA
alpha-BHC	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
alpha-Chlordane	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
beta-BHC	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
delta-BHC	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
gamma-BHC (Lindane)	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
gamma-Chlordane	1.9 U	NA	2 U	NA	1.9 U	1.9 U	NA	NA	2.5 U	NA	1.9 U	NA	2.3 U	NA	1.9 U	NA	1.8 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M04		MR04-M05		MR04-M06		MR04-M07		MR04-M08				MR04-M09		MR04-M10	
Sample ID	MR04-M04-0-1-07C	MR04-M04-07C	MR04-M05-0-1-07C	MR04-M05-07C	MR04-M06-07D	MR04-M06-0-1-07D	MR04-M07-0-1-07D	MR04-M07-07D	MR04-M08-0-1-07D	MR04-M08-07D	MR04-M08D-0-1-07D	MR04-M08D-07D	MR04-M09-0-1-07D	MR04-M09-07D	MR04-M10-0-1-07D	MR04-M10-07D
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07
Chemical Name																
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	2.1 J	NA	3.1 J	NA	5.8	NA	3.6 U	NA
4,4'-DDE	2.6 J	NA	3.8 U	NA	NA	4.9	3.2 J	NA	95	NA	95	NA	520	NA	6.7	NA
4,4'-DDT	2.2 J	NA	3.8 U	NA	NA	2.3 J	3.5 U	NA	36 J	NA	45 J	NA	230	NA	4.9	NA
Aldrin	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
Aroclor-1016	43 U	NA	38 U	NA	NA	46 U	35 U	NA	37 U	NA	43 U	NA	37 U	NA	36 U	NA
Aroclor-1221	88 U	NA	78 U	NA	NA	93 U	71 U	NA	74 U	NA	88 U	NA	76 U	NA	73 U	NA
Aroclor-1232	43 U	NA	38 U	NA	NA	46 U	35 U	NA	37 U	NA	43 U	NA	37 U	NA	36 U	NA
Aroclor-1242	43 U	NA	38 U	NA	NA	46 U	35 U	NA	37 U	NA	43 U	NA	37 U	NA	36 U	NA
Aroclor-1248	43 U	NA	38 U	NA	NA	46 U	35 U	NA	37 U	NA	43 U	NA	37 U	NA	36 U	NA
Aroclor-1254	43 U	NA	38 U	NA	NA	46 U	35 U	NA	37 U	NA	43 U	NA	37 U	NA	36 U	NA
Aroclor-1260	43 U	NA	38 U	NA	NA	46 U	35 U	NA	75	NA	110	NA	38	NA	36 U	NA
Dieldrin	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	3.4 J	NA	4.5 J	NA	12	NA	2.1 J	NA
Endosulfan I	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	0.91 J	NA	1.3 J	NA	1.9 U	NA	1.9 U	NA
Endosulfan II	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	2.2 J	NA	2.5 J	NA	3.7 U	NA	3.6 U	NA
Endosulfan sulfate	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	3.7 U	NA	4.3 U	NA	3.7 U	NA	3.6 U	NA
Endrin	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	2.8 J	NA	3.6 J	NA	3.7 U	NA	3.6 U	NA
Endrin aldehyde	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.6 U	NA	2.2 J	NA	4.6 J	NA	3.7 U	NA	3.6 U	NA
Endrin ketone	4.3 U	NA	3.8 U	NA	NA	4.6 U	3.5 U	NA	3.7 U	NA	2.2 J	NA	2.9 J	NA	3.6 U	NA
Heptachlor	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
Heptachlor epoxide	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	2.6 J	NA	3.3 J	NA	2 J	NA	1.9 U	NA
Methoxychlor	22 U	NA	20 U	NA	NA	24 U	18 U	NA	19 U	NA	22 U	NA	19 U	NA	19 U	NA
Toxaphene	220 U	NA	200 U	NA	NA	240 U	180 U	NA	190 U	NA	220 U	NA	190 U	NA	190 U	NA
alpha-BHC	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
alpha-Chlordane	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
beta-BHC	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
delta-BHC	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
gamma-BHC (Lindane)	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	1.9 U	NA	2.2 U	NA	1.9 U	NA	1.9 U	NA
gamma-Chlordane	2.2 U	NA	2 U	NA	NA	2.4 U	1.8 U	NA	5.2 J	NA	6.7 J	NA	1.6 J	NA	1.9 U	NA
Explosives (UG_KG)																
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K01		MR04-K02		MR04-K03		MR04-K04		MR04-K05		MR04-K06		MR04-K07		MR04-K08	
Sample ID	MR04-K01-0-1-07D	MR04-K01-07D	MR04-K02-0-1-07D	MR04-K02-07D	MR04-K03-0-1-07D	MR04-K03-07D	MR04-K04-0-1-07D	MR04-K04-07D	MR04-K05-0-1-07D	MR04-K05-07D	MR04-K06-0-1-07D	MR04-K06-07D	MR04-K07-0-1-07D	MR04-K07-07D	MR04-K08-0-1-07D	MR04-K08-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																
Total Metals (MG_KG)																
Aluminum	6,650	NA	4,050	NA	2,760	NA	4,230	NA	3,400	NA	6,990	NA	3,540	NA	5,970	NA
Antimony	5.8 UJ	NA	4.6 UJ	NA	0.28 J	NA	0.32 J	NA	4.9 UJ	NA	6.3 UJ	NA	5 UJ	NA	5.1 UJ	NA
Arsenic	2.5	NA	0.95	NA	0.68 J	NA	1.3	NA	1.2	NA	1.5	NA	1.2	NA	1.3	NA
Barium	10.7 J	NA	13.4 J	NA	15.1 J	NA	18.1 J	NA	20.1	NA	16.3 J	NA	22.4	NA	17.4	NA
Beryllium	0.086 J	NA	0.052 J	NA	0.082 J	NA	0.047 J	NA	0.018 J	NA	0.05 J	NA	0.085 J	NA	0.027 J	NA
Cadmium	0.48 U	NA	0.032 J	NA	0.48 U	NA	0.48 U	NA	0.41 U	NA	0.53 U	NA	0.41 U	NA	0.42 U	NA
Calcium	149 J	NA	248 J	NA	365 J	NA	1,980	NA	107 J	NA	251 J	NA	169 J	NA	179 J	NA
Chromium	9.2	NA	4.6	NA	2.4	NA	4.5	NA	4.1	NA	7.7	NA	4	NA	5.6	NA
Cobalt	0.24 J	NA	0.77 J	NA	0.1 J	NA	0.17 J	NA	0.22 J	NA	0.24 J	NA	0.13 J	NA	0.23 J	NA
Copper	0.73 J	NA	10.3	NA	0.51 J	NA	0.84 J	NA	0.61 J	NA	1 J	NA	0.78 J	NA	0.76 J	NA
Cyanide	2.7 U	NA	2.6 U	NA	2.9 U	NA	3.2 U	NA	2.7 U	NA	2.9 U	NA	2.7 U	NA	2.7 U	NA
Iron	10,800	NA	2,490	NA	2,000	NA	3,390	NA	3,770	NA	4,780	NA	2,800	NA	3,520	NA
Lead	9.2	NA	18.4	NA	8.9	NA	11.8	NA	6.3	NA	6.8	NA	6.9	NA	6.4	NA
Magnesium	175 J	NA	110 J	NA	72.9 J	NA	165 J	NA	110 J	NA	190 J	NA	94.7 J	NA	141 J	NA
Manganese	8.2	NA	10	NA	7.6	NA	10.3	NA	7.3	NA	7.9	NA	6.7	NA	6.9	NA
Mercury	0.016 J	NA	0.13 J	NA	0.026 J	NA	0.031 J	NA	0.2 U	NA	0.23 U	NA	0.19 U	NA	0.21 U	NA
Nickel	3.8 U	NA	3.1 U	NA	3.9 U	NA	3.9 U	NA	0.63 J	NA	1 J	NA	0.67 J	NA	1.1 J	NA
Potassium	201 J	NA	147 J	NA	77.3 J	NA	140 J	NA	144 J	NA	262 J	NA	142 J	NA	160 J	NA
Selenium	0.42 J	NA	0.22 J	NA	0.46 J	NA	0.26 J	NA	2.9 U	NA	3.7 U	NA	0.28 J	NA	3 U	NA
Silver	0.96 U	NA	0.77 U	NA	0.97 U	NA	0.97 U	NA	0.81 U	NA	1.1 U	NA	0.83 U	NA	0.85 U	NA
Sodium	481 U	NA	387 U	NA	485 U	NA	483 U	NA	408 U	NA	528 U	NA	414 U	NA	425 U	NA
Thallium	2.4 U	NA	1.9 U	NA	2.4 U	NA	2.4 U	NA	2 U	NA	2.6 U	NA	2.1 U	NA	2.1 U	NA
Vanadium	15.9	NA	6.5	NA	5	NA	9.1	NA	9.1	NA	13	NA	7	NA	9.7	NA
Zinc	3.5 J	NA	24.5 J	NA	1.8 J	NA	3.4 J	NA	4.9 U	NA	6.3 U	NA	5 U	NA	5.1 U	NA
Wet Chemistry (MG_KG)																
Perchlorate	0.0027 U	NA	0.0022 U	NA	0.0025 U	NA	0.0026 U	NA	0.0022 U	NA	0.0028 U	NA	0.0022 U	NA	0.0023 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K09				MR04-K10		MR04-K11		MR04-K12		MR04-K13		MR04-K14				MR04-K15	
Sample ID	MR04-K09-0-1-07C	MR04-K09-07C	MR04-K09D-0-1-07C	MR04-K09D-07C	MR04-K10-0-1-07C	MR04-K10-07C	MR04-K11-0-1-07C	MR04-K11-07C	MR04-K12-0-1-07C	MR04-K12-07C	MR04-K13-0-1-07C	MR04-K13-07C	MR04-K14-0-1-07C	MR04-K14-07C	MR04-K14D-0-1-07C	MR04-K14D-07C	MR04-K15-0-1-07C	MR04-K15-07C
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	2,030	NA	1,690	NA	2,960	NA	7,070	NA	4,170	NA	7,440	NA	5,580	NA	5,060	NA	4,620	NA
Antimony	5 UJ	NA	0.29 J	NA	0.64 J	NA	6 UJ	NA	5.4 U	NA	6 UJ	NA	0.33 J	NA	0.34 J	NA	0.39 J	NA
Arsenic	0.97	NA	0.88 J	NA	1.1	NA	2.4	NA	2.3	NA	3.1	NA	6.1	NA	2.8	NA	14.2	NA
Barium	24	NA	26.7	NA	18 J	NA	22 J	NA	30.5 J	NA	15.7 J	NA	12.4 J	NA	11.4 J	NA	15.5 J	NA
Beryllium	0.42 U	NA	0.48 U	NA	0.54 U	NA	0.5 U	NA	0.45 U	NA	0.5 U	NA	0.04 J	NA	0.034 J	NA	0.045 J	NA
Cadmium	0.42 U	NA	0.48 U	NA	0.54 U	NA	0.17 J	NA	0.42 J	NA	0.29 J	NA	0.085 J	NA	0.082 J	NA	0.16 J	NA
Calcium	684	NA	666	NA	362 J	NA	15,100 J	NA	24,700 J	NA	14,400 J	NA	1,780	NA	1,480	NA	20,900	NA
Chromium	2.3 J	NA	2 J	NA	3.2	NA	9.2	NA	10.7	NA	12.2	NA	7.3	NA	6	NA	13.5	NA
Cobalt	0.11 J	NA	0.079 J	NA	0.12 J	NA	5 U	NA	4.5 U	NA	5 U	NA	0.28 J	NA	0.26 J	NA	0.28 J	NA
Copper	0.68 J	NA	1.1 J	NA	1.1 J	NA	3.4	NA	3	NA	3.8	NA	3.1	NA	3.2	NA	10.2	NA
Cyanide	2.8 U	NA	3.2 U	NA	3.3 U	NA	3.6 U	NA	3 U	NA	3.5 U	NA	0.092 J	NA	2.9 U	NA	3.3 U	NA
Iron	1,840	NA	1,630	NA	3,080 J	NA	5,990 J	NA	2,820 J	NA	5,510 J	NA	7,010	NA	5,020	NA	4,410	NA
Lead	6.6	NA	8.5	NA	6.9	NA	22.7	NA	8	NA	11.9	NA	8.5	NA	7.6	NA	39.4	NA
Magnesium	421 U	NA	482 U	NA	96.2 J	NA	483 J	NA	549	NA	572	NA	181 J	NA	161 J	NA	486 J	NA
Manganese	8 J	NA	8.7 J	NA	10.9 J	NA	18.1	NA	19	NA	18.6	NA	8.2	NA	7.7	NA	26.3	NA
Mercury	0.11 U	NA	0.033 J	NA	0.098 U	NA	0.029 J	NA	0.11 U	NA	0.019 J	NA	0.013 J	NA	0.013 J	NA	0.024 J	NA
Nickel	0.63 J	NA	0.63 J	NA	0.74 J	NA	2.1 J	NA	4	NA	3.5 J	NA	1.9 J	NA	1.6 J	NA	1.9 J	NA
Potassium	112 J	NA	104 J	NA	116 J	NA	259 J	NA	258 J	NA	322 J	NA	186 J	NA	153 J	NA	189 J	NA
Selenium	2.9 U	NA	3.4 U	NA	3.8 U	NA	0.38 J	NA	0.92 J	NA	3.5 U	NA	0.35 J	NA	2.9 U	NA	0.69 J	NA
Silver	0.84 U	NA	0.96 U	NA	1.1 U	NA	1 U	NA	0.17 J	NA	0.99 U	NA	0.89 U	NA	0.84 U	NA	1 U	NA
Sodium	14.4 J	NA	16.5 J	NA	15.2 J	NA	54.4 J	NA	98.8 J	NA	82.3 J	NA	15.7 J	NA	20.9 J	NA	31.7 J	NA
Thallium	2.1 U	NA	2.4 U	NA	2.7 U	NA	2.5 U	NA	2.3 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA	2.6 U	NA
Vanadium	5.3	NA	4.9	NA	7.4	NA	13	NA	10.2	NA	12.7	NA	12.1	NA	9.3	NA	10.1	NA
Zinc	1.7 J	NA	2.1 J	NA	3.1 J	NA	19.5	NA	32.3	NA	51.1	NA	28.1	NA	26.4	NA	41.6	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0023 U	NA	0.0026 U	NA	0.0028 U	NA	0.003 U	NA	0.0026 U	NA	0.0028 U	NA	0.0023 U	NA	0.0023 U	NA	0.0056 U	NA

Notes:
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NA- Not analyzed

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-K16		MR04-K17		MR04-K18		MR04-K19		MR04-K20		MR04-L01		MR04-L02		MR04-L03		MR04-L04	
Sample ID	MR04-K16-0-1-07C	MR04-K16-07C	MR04-K17-0-1-07C	MR04-K17-07C	MR04-K18-0-1-07C	MR04-K18-07C	MR04-K19-0-1-07C	MR04-K19-07C	MR04-K20-0-1-07C	MR04-K20-07C	MR04-L01-0-1-07D	MR04-L01-07D	MR04-L02-0-1-07D	MR04-L02-07D	MR04-L03-0-1-07D	MR04-L03-07D	MR04-L04-0-1-07D	MR04-L04-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	4,770	NA	3,490	NA	5,590	NA	14,200 J	NA	3,950 J	NA	3,020	NA	2,610	NA	4,020	NA	2,410	NA
Antimony	0.32 J	NA	5.3 UJ	NA	0.45 J	NA	0.31 J	NA	5.1 UJ	NA	5.7 UJ	NA	4.8 UJ	NA	4.6 UJ	NA	4.7 UJ	NA
Arsenic	1.9	NA	1.6	NA	2.7	NA	5.4	NA	1.8	NA	1.4	NA	0.85	NA	1.2	NA	0.97	NA
Barium	10.3 J	NA	13.3 J	NA	17.2	NA	16 J	NA	9.4 J	NA	8.4 J	NA	10.4 J	NA	13.2 J	NA	8.3 J	NA
Beryllium	0.029 J	NA	0.04 J	NA	0.061 J	NA	0.12 J	NA	0.062 J	NA	0.032 J	NA	0.026 J	NA	0.031 J	NA	0.4 U	NA
Cadmium	0.06 J	NA	0.087 J	NA	0.12 J	NA	0.44 U	NA	0.052 J	NA	0.47 U	NA	0.4 U	NA	0.39 U	NA	0.4 U	NA
Calcium	2,270	NA	4,070	NA	5,710	NA	815 J	NA	1,020 J	NA	82.1 J	NA	292 J	NA	96.9 J	NA	46.5 J	NA
Chromium	5.6	NA	4	NA	7.4	NA	20.7 J	NA	5.4 J	NA	3.7	NA	2.4	NA	4.5	NA	2.8	NA
Cobalt	0.2 J	NA	0.17 J	NA	0.27 J	NA	0.58 J	NA	0.16 J	NA	0.12 J	NA	0.12 J	NA	0.2 J	NA	0.11 J	NA
Copper	1.4 J	NA	1.2 J	NA	2.2	NA	1.9 J	NA	1.2 J	NA	0.46 J	NA	0.55 J	NA	0.69 J	NA	0.56 J	NA
Cyanide	2.8 U	NA	2.8 U	NA	2.6 U	NA	2.7 U	NA	2.6 U	NA	2.9 U	NA	2.5 U	NA	2.6 U	NA	2.5 U	NA
Iron	4,330	NA	2,790	NA	5,420	NA	9,510 J	NA	3,420 J	NA	2,780	NA	1,880	NA	3,000	NA	1,970	NA
Lead	11.4	NA	10.1	NA	15.9	NA	11.6	NA	17	NA	5.4	NA	8.2	NA	8.6	NA	5.6	NA
Magnesium	170 J	NA	194 J	NA	260 J	NA	599	NA	174 J	NA	62 J	NA	80.4 J	NA	113 J	NA	66.1 J	NA
Manganese	8.5	NA	6	NA	13.6	NA	7.7	NA	6.3	NA	4.1	NA	6.8	NA	8.2	NA	5.8	NA
Mercury	0.11 U	NA	0.026 J	NA	0.091 U	NA	0.025 J	NA	0.021 J	NA	0.02 J	NA	0.03 J	NA	0.17 U	NA	0.19 U	NA
Nickel	1.2 J	NA	1 J	NA	1.4 J	NA	2.1 J	NA	1.1 J	NA	3.8 U	NA	3.2 U	NA	0.74 J	NA	0.56 J	NA
Potassium	130 J	NA	139 J	NA	211 J	NA	695	NA	193 J	NA	67.6 J	NA	114 J	NA	149 J	NA	104 J	NA
Selenium	2.9 U	NA	3.1 U	NA	0.38 J	NA	0.24 J	NA	0.37 J	NA	3.3 U	NA	0.32 J	NA	2.7 U	NA	2.8 U	NA
Silver	0.84 U	NA	0.88 U	NA	0.84 U	NA	0.88 U	NA	0.85 U	NA	0.95 U	NA	0.8 U	NA	0.77 U	NA	0.79 U	NA
Sodium	15.1 J	NA	11.3 J	NA	20.9 J	NA	33.5 J	NA	26.6 J	NA	474 U	NA	399 U	NA	387 U	NA	395 U	NA
Thallium	2.1 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.1 U	NA	2.4 U	NA	2 U	NA	1.9 U	NA	2 U	NA
Vanadium	9	NA	6.9	NA	12.4	NA	28.6	NA	8.4	NA	6.3	NA	5.6	NA	8.1	NA	5.4	NA
Zinc	13.2	NA	7.8	NA	37.6	NA	13.7	NA	10.9	NA	2.4 J	NA	2 J	NA	4.6 U	NA	4.7 U	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0022 U	NA	0.0046 U	NA	0.0022 U	NA	0.0024 U	NA	0.0023 U	NA	0.0025 U	NA	0.0022 U	NA	0.0022 U	NA	0.0021 U	NA

Notes:
U- Analyte not detected
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Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L05		MR04-L06		MR04-L07		MR04-L08		MR04-L09		MR04-L10		MR04-L11		MR04-L12		MR04-L13	
Sample ID	MR04-L05-0-1-07D	MR04-L05-07D	MR04-L06-0-1-07D	MR04-L06-07D	MR04-L07-0-1-07C	MR04-L07-07C	MR04-L08-0-1-07C	MR04-L08-07C	MR04-L09-0-1-07C	MR04-L09-07C	MR04-L10-0-1-07C	MR04-L10-07C	MR04-L11-07C	MR04-L11-0-1-07C	MR04-L12-0-1-07C	MR04-L12-07C	MR04-L13-0-1-07C	MR04-L13-07C
Sample Date	10/17/07	10/17/07	10/17/07	10/17/07	09/12/07	09/12/07	09/12/07	09/12/07	09/08/07	09/08/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	6,130	NA	4,150	NA	1,490	NA	3,040	NA	4,430	NA	3,420	NA	NA	4,000	5,970	NA	5,850	NA
Antimony	6.7 UJ	NA	5.9 UJ	NA	0.25 J	NA	0.26 J	NA	5.8 UJ	NA	6 UJ	NA	NA	0.55 J	0.24 J	NA	0.77 J	NA
Arsenic	0.86 J	NA	1.2	NA	0.73 J	NA	1.7	NA	1.9	NA	1.5	NA	NA	2.5	2.2	NA	2.5	NA
Barium	25.8	NA	16.5 J	NA	18.4	NA	10.6 J	NA	13.8 J	NA	22	NA	NA	10.4 J	12.9 J	NA	15.5 J	NA
Beryllium	0.17 J	NA	0.017 J	NA	0.43 U	NA	0.41 U	NA	0.48 U	NA	0.032 J	NA	NA	0.061 J	0.42 U	NA	0.044 J	NA
Cadmium	0.56 U	NA	0.5 U	NA	0.43 U	NA	0.41 U	NA	0.049 J	NA	0.12 J	NA	NA	0.16 J	0.068 J	NA	0.095 J	NA
Calcium	159 J	NA	79.3 J	NA	96.5 J	NA	103 J	NA	132 J	NA	9,820	NA	NA	9,180	1,330	NA	3,820	NA
Chromium	8.3	NA	5.7	NA	1.8 J	NA	4.4 J	NA	5.9	NA	5.6	NA	NA	8.2	7.1	NA	7.3	NA
Cobalt	0.21 J	NA	0.15 J	NA	0.06 J	NA	0.08 J	NA	0.17 J	NA	0.58 J	NA	NA	0.75 J	0.25 J	NA	0.28 J	NA
Copper	2.8 U	NA	2.5 U	NA	0.6 J	NA	5	NA	0.64 J	NA	1.5 J	NA	NA	4.2	2.6	NA	2.5 J	NA
Cyanide	3.7 U	NA	3 U	NA	2.9 U	NA	2.7 U	NA	2.8 U	NA	3.2 U	NA	NA	2.9 U	2.9 U	NA	3.3 U	NA
Iron	2,920	NA	5,600	NA	1,660	NA	7,360	NA	4,580 J	NA	2,510	NA	NA	3,210	6,240	NA	6,770	NA
Lead	7.5 J	NA	6.4 J	NA	7.5	NA	7.7	NA	5.5	NA	6	NA	NA	9.6	6.8	NA	11.6	NA
Magnesium	216 J	NA	93.6 J	NA	426 U	NA	73.5 J	NA	113 J	NA	231 J	NA	NA	290 J	188 J	NA	242 J	NA
Manganese	9.2	NA	10.8	NA	5.5 J	NA	5.2 U	NA	10.2 J	NA	9.5	NA	NA	11	5.3	NA	9.2	NA
Mercury	0.54 U	NA	0.47 U	NA	0.098 U	NA	0.015 J	NA	0.037 J	NA	0.12 U	NA	NA	0.02 J	0.016 J	NA	0.021 J	NA
Nickel	4.5 U	NA	4 U	NA	0.53 J	NA	0.8 J	NA	1.2 J	NA	1.5 J	NA	NA	2 J	1.2 J	NA	1.6 J	NA
Potassium	331 J	NA	152 J	NA	96.9 J	NA	144 J	NA	162 J	NA	118 J	NA	NA	179 J	203 J	NA	234 J	NA
Selenium	3.9 U	NA	3.5 U	NA	3 U	NA	2.9 U	NA	3.4 U	NA	0.45 J	NA	NA	0.43 J	2.9 U	NA	3.7 U	NA
Silver	1.1 U	NA	0.99 U	NA	0.85 U	NA	0.82 U	NA	0.97 U	NA	1 U	NA	NA	0.89 U	0.84 U	NA	1 U	NA
Sodium	22.1 J	NA	12.1 J	NA	9.8 J	NA	13 J	NA	18.3 J	NA	33.5 J	NA	NA	39.9 J	6 J	NA	23.1 J	NA
Thallium	2.8 U	NA	2.5 U	NA	2.1 U	NA	2 U	NA	2.4 U	NA	2.5 U	NA	NA	2.2 U	2.1 U	NA	2.6 U	NA
Vanadium	10.3	NA	10.6	NA	4.8	NA	14	NA	12.3	NA	6.9	NA	NA	8	11.8	NA	11.9	NA
Zinc	3.2 J	NA	2 J	NA	1.9 J	NA	2.1 J	NA	2.9 J	NA	9.6	NA	NA	21.6	19.1	NA	13.9	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0031 U	NA	0.0027 U	NA	0.0024 U	NA	0.0022 U	NA	0.0026 U	NA	0.0028 U	NA	NA	0.0048 U	0.0023 U	NA	0.0027 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-L14		MR04-L16		MR04-L17				MR04-L18		MR04-L19		MR04-M01		MR04-M02		MR04-M03	
Sample ID	MR04-L14-0-1-07C	MR04-L14-07C	MR04-L16-0-1-07C	MR04-L16-07C	MR04-L17-0-1-07C	MR04-L17D-0-1-07C	MR04-L17-07C	MR04-L17D-07C	MR04-L18-0-1-07C	MR04-L18-07C	MR04-L19-0-1-07C	MR04-L19-07C	MR04-M01-0-1-07D	MR04-M01-07D	MR04-M02-0-1-07D	MR04-M02-07D	MR04-M03-0-1-07D	MR04-M03-07D
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,620	NA	3,980 J	NA	5,320 J	4,200 J	NA	NA	6,600 J	NA	4,260 J	NA	5,200	NA	4,960	NA	2,970	NA
Antimony	0.33 J	NA	5.3 UJ	NA	5 UJ	5 UJ	NA	NA	6.5 UJ	NA	5 UJ	NA	5.9 UJ	NA	5 U	NA	4.9 U	NA
Arsenic	1.6	NA	1.7	NA	1.5	1.5	NA	NA	2.2	NA	1.3	NA	1.7	NA	1.2	NA	1	NA
Barium	11.5 J	NA	17.6	NA	10.1 J	9.1 J	NA	NA	13.4 J	NA	10.4 J	NA	12.6 J	NA	15.8 J	NA	12.4 J	NA
Beryllium	0.02 J	NA	0.027 J	NA	0.035 J	0.025 J	NA	NA	0.047 J	NA	0.023 J	NA	0.065 J	NA	0.021 J	NA	0.41 U	NA
Cadmium	0.069 J	NA	0.12 J	NA	0.42 U	0.034 J	NA	NA	0.54 U	NA	0.41 U	NA	0.49 U	NA	0.42 U	NA	0.41 U	NA
Calcium	3,170	NA	2,400 J	NA	754 J	655 J	NA	NA	366 J	NA	1,090 J	NA	106 J	NA	755	NA	59.2 J	NA
Chromium	4.6	NA	5.3 J	NA	5.3 J	5 J	NA	NA	7.6 J	NA	3.9 J	NA	6.1	NA	4.9	NA	3.1	NA
Cobalt	0.2 J	NA	0.23 J	NA	0.21 J	0.22 J	NA	NA	0.32 J	NA	0.26 J	NA	0.23 J	NA	0.21 J	NA	0.14 J	NA
Copper	1.6 J	NA	2.9	NA	1.1 J	0.92 J	NA	NA	2.7 J	NA	1 J	NA	0.83 J	NA	0.88 J	NA	0.74 J	NA
Cyanide	2.6 U	NA	2.9 U	NA	2.6 U	2.6 U	NA	NA	3.5 U	NA	2.5 U	NA	3 U	NA	2.4 U	NA	2.3 U	NA
Iron	3,910	NA	3,810 J	NA	3,540 J	3,580 J	NA	NA	4,830 J	NA	3,080 J	NA	3,250	NA	3,090	NA	2,650	NA
Lead	20.5	NA	14.5	NA	4.9	5.4	NA	NA	9.5	NA	8.3	NA	6.4	NA	11.6	NA	6.5	NA
Magnesium	194 J	NA	172 J	NA	150 J	145 J	NA	NA	189 J	NA	119 J	NA	148 J	NA	158 J	NA	73.2 J	NA
Manganese	7.9	NA	11.2	NA	5.9	6.3	NA	NA	7.8	NA	11.3	NA	6.4	NA	17.4	NA	17	NA
Mercury	0.011 J	NA	0.054	NA	0.01 J	0.088 U	NA	NA	0.015 J	NA	0.022 J	NA	0.11 U	NA	0.035 J	NA	0.018 J	NA
Nickel	1.4 J	NA	1.8 J	NA	1.4 J	1.3 J	NA	NA	1.9 J	NA	1.4 J	NA	0.74 J	NA	3.3 U	NA	3.3 U	NA
Potassium	124 J	NA	170 J	NA	165 J	150 J	NA	NA	211 J	NA	111 J	NA	198 J	NA	180 J	NA	113 J	NA
Selenium	3 U	NA	0.28 J	NA	0.33 J	0.28 J	NA	NA	3.8 U	NA	2.9 U	NA	3.4 U	NA	0.25 J	NA	0.28 J	NA
Silver	0.84 U	NA	0.88 U	NA	0.84 U	0.83 U	NA	NA	1.1 U	NA	0.83 U	NA	0.98 U	NA	0.83 U	NA	0.82 U	NA
Sodium	11.5 J	NA	19.8 J	NA	18.1 J	16.6 J	NA	NA	18 J	NA	19.1 J	NA	490 U	NA	416 U	NA	410 U	NA
Thallium	2.1 U	NA	2.2 U	NA	2.1 U	2.1 U	NA	NA	2.7 U	NA	2.1 U	NA	2.4 U	NA	2.1 U	NA	2 U	NA
Vanadium	9.2	NA	9	NA	7.9	7.2	NA	NA	10.7	NA	6.7	NA	10.2	NA	8.3	NA	6.7	NA
Zinc	9.2	NA	23.7	NA	3.4 J	4.1 J	NA	NA	11	NA	5.4	NA	2.6 J	NA	3.3 J	NA	2.2 J	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0022 U	NA	0.0024 U	NA	0.0022 U	0.0022 U	NA	NA	0.0058 U	NA	0.0022 U	NA	0.0027 U	NA	0.0022 U	NA	0.0022 U	NA

Notes:
U- Analyte not detected
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UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed

Phase II Surface Soil Raw Analytical Results
Decision Units K01 - M10
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-M04		MR04-M05		MR04-M06		MR04-M07		MR04-M08				MR04-M09		MR04-M10	
Sample ID	MR04-M04-0-1-07C	MR04-M04-07C	MR04-M05-0-1-07C	MR04-M05-07C	MR04-M06-07D	MR04-M06-0-1-07D	MR04-M07-0-1-07D	MR04-M07-07D	MR04-M08-0-1-07D	MR04-M08-07D	MR04-M08D-0-1-07D	MR04-M08D-07D	MR04-M09-0-1-07D	MR04-M09-07D	MR04-M10-0-1-07D	MR04-M10-07D
Sample Date	09/12/07	09/12/07	09/12/07	09/12/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/17/07	10/16/07	10/16/07
Chemical Name																
Total Metals (MG_KG)																
Aluminum	2,600	NA	6,840	NA	NA	3,850	3,680	NA	2,690	NA	2,900	NA	4,150	NA	3,630	NA
Antimony	5.7 UJ	NA	0.31 J	NA	NA	6.3 UJ	4.8 U	NA	5 UJ	NA	6 UJ	NA	5.2 UJ	NA	5 UJ	NA
Arsenic	1.2	NA	1.5	NA	NA	1.2	0.99	NA	1.5	NA	1.4	NA	1.4	NA	1.7	NA
Barium	18.3 J	NA	35.7	NA	NA	12.3 J	8.4 J	NA	32.3	NA	31.1	NA	14.7 J	NA	15.2 J	NA
Beryllium	0.48 U	NA	0.058 J	NA	NA	0.077 J	0.018 J	NA	0.029 J	NA	0.036 J	NA	0.037 J	NA	0.039 J	NA
Cadmium	0.48 U	NA	0.42 U	NA	NA	0.53 U	0.4 U	NA	0.059 J	NA	0.072 J	NA	0.037 J	NA	0.18 J	NA
Calcium	307 J	NA	151 J	NA	NA	228 J	404 U	NA	1,310	NA	1,540	NA	516	NA	5,680	NA
Chromium	2.6 J	NA	9.1 J	NA	NA	4.3	4	NA	3.6	NA	3.9	NA	5.3	NA	5.8	NA
Cobalt	0.088 J	NA	0.25 J	NA	NA	0.28 J	0.19 J	NA	0.19 J	NA	0.19 J	NA	0.23 J	NA	0.3 J	NA
Copper	0.86 J	NA	1.5 J	NA	NA	0.66 J	0.61 J	NA	3.2	NA	3.7	NA	3.7	NA	3.7	NA
Cyanide	3.2 U	NA	2.8 U	NA	NA	3.3 U	2.6 U	NA	2.7 U	NA	3.1 U	NA	2.5 U	NA	2.3 U	NA
Iron	2,480	NA	4,980	NA	NA	2,760	2,600	NA	2,880	NA	2,830	NA	3,810	NA	3,680	NA
Lead	7	NA	6	NA	NA	9.3	5.2	NA	13.5	NA	14.1	NA	12.1	NA	38.9	NA
Magnesium	476 U	NA	226 J	NA	NA	111 J	92.5 J	NA	121 J	NA	147 J	NA	134 J	NA	204 J	NA
Manganese	15.3 J	NA	6.9 J	NA	NA	6.4	12.7	NA	12.7	NA	14.5	NA	6.8	NA	14.3	NA
Mercury	0.024 J	NA	0.11 U	NA	NA	0.21 U	0.014 J	NA	0.2 U	NA	0.22 U	NA	0.18 U	NA	0.19 U	NA
Nickel	0.68 J	NA	1.1 J	NA	NA	0.77 J	3.2 U	NA	0.78 J	NA	0.87 J	NA	1.1 J	NA	1.5 J	NA
Potassium	94.8 J	NA	302 J	NA	NA	152 J	134 J	NA	131 J	NA	153 J	NA	162 J	NA	164 J	NA
Selenium	3.3 U	NA	3 U	NA	NA	3.7 U	0.22 J	NA	2.9 U	NA	3.5 U	NA	3 U	NA	2.9 U	NA
Silver	0.95 U	NA	0.85 U	NA	NA	1.1 U	0.81 U	NA	0.84 U	NA	1 U	NA	0.86 U	NA	0.83 U	NA
Sodium	13.6 J	NA	20.3 J	NA	NA	529 U	404 U	NA	418 U	NA	498 U	NA	431 U	NA	414 U	NA
Thallium	2.4 U	NA	2.1 U	NA	NA	2.6 U	2 U	NA	2.1 U	NA	2.5 U	NA	2.2 U	NA	2.1 U	NA
Vanadium	6	NA	14.2	NA	NA	6.8	7.3	NA	6.6	NA	7.4	NA	8.3	NA	7.8	NA
Zinc	44.2	NA	3.1 J	NA	NA	5.7 J	2.1 J	NA	8.1 J	NA	9.1 J	NA	6.4 J	NA	20.2 J	NA
Wet Chemistry (MG_KG)																
Perchlorate	0.0026 U	NA	0.0023 U	NA	NA	0.0028 U	0.0021 U	NA	0.0022 U	NA	0.0026 U	NA	0.0023 U	NA	0.0022 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H21		MR04-H22				MR04-H23		MR04-I01				MR04-I02		MR04-I03		MR04-I04		MR04-I05	
Sample ID	MR04-H21-0-1-07C	MR04-H21-07C	MR04-H22-0-1-07C	MR04-H22-07C	MR04-H22D-0-1-07C	MR04-H22D-07C	MR04-H23-0-1-07C	MR04-H23-07C	MR04-I01-0-1-07D	MR04-I01-07D	MR04-I01D-07D	MR04-I01D-0-1-07D	MR04-I02-0-1-07C	MR04-I02-07C	MR04-I03-0-1-07D	MR04-I03-07D	MR04-I04-0-1-07D	MR04-I04-07D	MR04-I05-0-1-07D	MR04-I05-07D
Sample Date	09/08/07	09/08/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/19/07	10/19/07	10/19/07	10/19/07	09/08/07	09/08/07	10/19/07	10/19/07	10/19/07	10/19/07	10/18/07	10/18/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
1,1,1-Trichloroethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,1,2,2-Tetrachloroethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,1,2-Trichloroethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,1-Dichloroethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,1-Dichloroethene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,2,4-Trichlorobenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,2-Dibromo-3-chloropropane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,2-Dibromoethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,2-Dichlorobenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,2-Dichloroethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,2-Dichloropropane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
1,3-Dichlorobenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
1,4-Dichlorobenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
2-Butanone	NA	5.2 J	NA	3.9 J	NA	22 J	NA	5.5 J	NA	4.8 J	8 J	NA	NA	34	NA	5.7 J	NA	13 U	NA	12 U
2-Hexanone	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
4-Methyl-2-pentanone	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Acetone	NA	55 J	NA	84	NA	330 J	NA	72 J	NA	120	120	NA	NA	730 J	NA	94	NA	27	NA	44 J
Benzene	NA	6.4 J	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Bromodichloromethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Bromoform	NA	15 U	NA	11 U	NA	10 U	NA	12 UJ	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Bromomethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Carbon disulfide	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Carbon tetrachloride	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Chlorobenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Chloroethane	NA	15 UJ	NA	11 U	NA	10 U	NA	12 UJ	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Chloroform	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Chloromethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Cyclohexane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Dibromochloromethane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Dichlorodifluoromethane (Freon-12)	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Ethylbenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Isopropylbenzene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Methyl acetate	NA	15	NA	11 U	NA	2.4 J	NA	5.1 J	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Methyl-tert-butyl ether (MTBE)	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Methylcyclohexane	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Methylene chloride	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Styrene	NA	15 U	NA	0.84 J	NA	8.5 J	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Tetrachloroethene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
Toluene	NA	4.9 J	NA	11 U	NA	0.83 J	NA	12 U	NA	11 U	12 U	NA	NA	5.4 J	NA	14 U	NA	13 U	NA	12 U
Trichloroethene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Trichlorofluoromethane(Freon-11)	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Vinyl chloride	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
Xylene, total	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U
cis-1,2-Dichloroethene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
cis-1,3-Dichloropropene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
trans-1,2-Dichloroethene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 U	NA	14 U	NA	13 U	NA	12 U
trans-1,3-Dichloropropene	NA	15 U	NA	11 U	NA	10 U	NA	12 U	NA	11 U	12 U	NA	NA	16 UJ	NA	14 U	NA	13 U	NA	12 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I06		MR04-I07		MR04-I08		MR04-I09		MR04-I10		MR04-I11		MR04-I12		MR04-I13				MR04-I14	
Sample ID	MR04-I06-0-1-07D	MR04-I06-07D	MR04-I07-0-1-07D	MR04-I07-07D	MR04-I08-0-1-07D	MR04-I08-07D	MR04-I09-07D	MR04-I09-0-1-07D	MR04-I10-0-1-07D	MR04-I10-07D	MR04-I11-0-1-07C	MR04-I11-07C	MR04-I12-0-1-07C	MR04-I12-07C	MR04-I13-0-1-07C	MR04-I13-07C	MR04-I13D-0-1-07C	MR04-I13D-07C	MR04-I14-07C	MR04-I14-0-1-07C
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
1,1,1-Trichloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,1,2,2-Tetrachloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,1,2-Trichloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,1-Dichloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,1-Dichloroethene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2,4-Trichlorobenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2-Dibromo-3-chloropropane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2-Dibromoethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2-Dichlorobenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2-Dichloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,2-Dichloropropane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,3-Dichlorobenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
1,4-Dichlorobenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
2-Butanone	NA	17 U	NA	9.6 U	NA	17 J	15 U	NA	NA	13 U	NA	31	NA	12 U	NA	15 U	NA	15 U	17	NA
2-Hexanone	NA	17 U	NA	9.6 U	NA	15 UJ	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
4-Methyl-2-pentanone	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Acetone	NA	53 J	NA	7.6 J	NA	430 J	29 J	NA	NA	13 UJ	NA	720 J	NA	12 U	NA	15 U	NA	15 U	48 J	NA
Benzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Bromodichloromethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Bromoform	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Bromomethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 UJ	NA	12 U	NA	15 UJ	NA	15 U	15 U	NA
Carbon disulfide	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Carbon tetrachloride	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Chlorobenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Chloroethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Chloroform	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	4.2 J	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Chloromethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Cyclohexane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Dibromochloromethane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Dichlorodifluoromethane (Freon-12)	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Ethylbenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Isopropylbenzene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Methyl acetate	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	13 J	NA	12 U	NA	3.4 J	NA	15 U	4.1 J	NA
Methyl-tert-butyl ether (MTBE)	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Methylcyclohexane	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Methylene chloride	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Styrene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Tetrachloroethene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Toluene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Trichloroethene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Trichlorofluoromethane(Freon-11)	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Vinyl chloride	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
Xylene, total	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
cis-1,2-Dichloroethene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
cis-1,3-Dichloropropene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
trans-1,2-Dichloroethene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA
trans-1,3-Dichloropropene	NA	17 U	NA	9.6 U	NA	15 U	15 U	NA	NA	13 U	NA	20 U	NA	12 U	NA	15 U	NA	15 U	15 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I15		MR04-I16		MR04-I17		MR04-I18		MR04-I19		MR04-I20		MR04-I21		MR04-J01			
Sample ID	MR04-I15-0-1-07C	MR04-I15-07C	MR04-I16-0-1-07C	MR04-I16-07C	MR04-I17-07C	MR04-I17-0-1-07C	MR04-I18-0-1-07C	MR04-I18-07C	MR04-I19-0-1-07C	MR04-I19-07C	MR04-I20-0-1-07C	MR04-I20-07C	MR04-I21-07C	MR04-I21-0-1-07C	MR04-J01-0-1-07D	MR04-J01-07D	MR04-J01D-0-1-07D	MR04-J01D-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	10/18/07	10/18/07	10/18/07	10/18/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,1,2,2-Tetrachloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,1,2-Trichloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,1-Dichloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,1-Dichloroethene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2,4-Trichlorobenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2-Dibromo-3-chloropropane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2-Dibromoethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2-Dichlorobenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2-Dichloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,2-Dichloropropane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,3-Dichlorobenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
1,4-Dichlorobenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
2-Butanone	NA	6.5 J	NA	12 U	15 U	NA	NA	11 U	NA	49	NA	12 U	28 U	NA	NA	12 J	NA	31 J
2-Hexanone	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 UJ	NA	17 UJ
4-Methyl-2-pentanone	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Acetone	NA	52 J	NA	14 J	9.1 J	NA	NA	11 U	NA	920 J	NA	17 J	790 J	NA	NA	280 J	NA	490 J
Benzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Bromodichloromethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Bromoform	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Bromomethane	NA	15 U	NA	12 U	15 UJ	NA	NA	11 U	NA	17 U	NA	12 UJ	28 U	NA	NA	13 U	NA	17 U
Carbon disulfide	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Carbon tetrachloride	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Chlorobenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Chloroethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Chloroform	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Chloromethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Cyclohexane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Dibromochloromethane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Dichlorodifluoromethane (Freon-12)	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Ethylbenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Isopropylbenzene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Methyl acetate	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	3.2 J	28 U	NA	NA	13 U	NA	17 U
Methyl-tert-butyl ether (MTBE)	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Methylcyclohexane	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Methylene chloride	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Styrene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	24 J	NA	NA	13 U	NA	17 U
Tetrachloroethene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Toluene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Trichloroethene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Trichlorofluoromethane(Freon-11)	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Vinyl chloride	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
Xylene, total	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
cis-1,2-Dichloroethene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
cis-1,3-Dichloropropene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
trans-1,2-Dichloroethene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U
trans-1,3-Dichloropropene	NA	15 U	NA	12 U	15 U	NA	NA	11 U	NA	17 U	NA	12 U	28 U	NA	NA	13 U	NA	17 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J02				MR04-J03		MR04-J04		MR04-J05		MR04-J06		MR04-J07		MR04-J08				MR04-J09	
Sample ID	MR04-J02-0-1-07D	MR04-J02D-07D	MR04-J02D-0-1-07D	MR04-J02-07D	MR04-J03-0-1-07D	MR04-J03-07D	MR04-J04-0-1-07D	MR04-J04-07D	MR04-J05-0-1-07D	MR04-J05-07D	MR04-J06-0-1-07D	MR04-J06-07D	MR04-J07-0-1-07D	MR04-J07-07D	MR04-J08-0-1-07D	MR04-J08-07D	MR04-J08D-0-1-07D	MR04-J08D-07D	MR04-J09-0-1-07D	MR04-J09-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
1,1,1-Trichloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,1,2,2-Tetrachloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,1,2-Trichloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,1-Dichloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,1-Dichloroethene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,2,4-Trichlorobenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
1,2-Dibromo-3-chloropropane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,2-Dibromoethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,2-Dichlorobenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
1,2-Dichloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,2-Dichloropropane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
1,3-Dichlorobenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
1,4-Dichlorobenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
2-Butanone	NA	48	NA	6.4 J	NA	24 J	NA	15 UJ	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	32 J
2-Hexanone	NA	12 U	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
4-Methyl-2-pentanone	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Acetone	NA	630 J	NA	90 J	NA	650 J	NA	86 J	NA	12 UJ	NA	150 J	NA	94 J	NA	210 J	NA	330 J	NA	570 J
Benzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Bromodichloromethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Bromoform	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Bromomethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Carbon disulfide	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Carbon tetrachloride	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Chlorobenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Chloroethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Chloroform	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Chloromethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Cyclohexane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Dibromochloromethane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Dichlorodifluoromethane (Freon-12)	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Ethylbenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Isopropylbenzene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Methyl acetate	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Methyl-tert-butyl ether (MTBE)	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Methylcyclohexane	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Methylene chloride	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Styrene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Tetrachloroethene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Toluene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Trichloroethene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16
Trichlorofluoromethane(Freon-11)	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
Vinyl chloride	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
Xylene, total	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
cis-1,2-Dichloroethene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
cis-1,3-Dichloropropene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U
trans-1,2-Dichloroethene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 UJ
trans-1,3-Dichloropropene	NA	12 U	NA	12 U	NA	15 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	13 U	NA	16 U	NA	16 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J10				MR04-J11		MR04-J12		MR04-J13				MR04-J14		MR04-J15		MR04-J16		MR04-J17	
Sample ID	MR04-J10-0-1-07C	MR04-J10-07C	MR04-J10D-0-1-07C	MR04-J10D-07C	MR04-J11-0-1-07C	MR04-J11-07C	MR04-J12-07C	MR04-J12-0-1-07C	MR04-J13-0-1-07C	MR04-J13-07C	MR04-J13D-0-1-07C	MR04-J13D-07C	MR04-J14-0-1-07C	MR04-J14-07C	MR04-J15-0-1-07C	MR04-J15-07C	MR04-J16-0-1-07C	MR04-J16-07C	MR04-J17-07C	MR04-J17-0-1-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/06/07	09/06/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																				
Volatile Organic Compounds (UG_KG)																				
1,1,1-Trichloroethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
1,1,2,2-Tetrachloroethane	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
1,1,2-Trichloroethane	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,1-Dichloroethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
1,1-Dichloroethene	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
1,2,4-Trichlorobenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,2-Dibromo-3-chloropropane	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,2-Dibromoethane	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,2-Dichlorobenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,2-Dichloroethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
1,2-Dichloropropane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
1,3-Dichlorobenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
1,4-Dichlorobenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
2-Butanone	NA	14 J	NA	14 J	NA	7.4 J	6 J	NA	NA	7.6 J	NA	4.8 J	NA	4.1 J	NA	14 J	NA	7 J	12 J	NA
2-Hexanone	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
4-Methyl-2-pentanone	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Acetone	NA	260 J	NA	320 J	NA	59 J	140	NA	NA	100 J	NA	67 J	NA	56 J	NA	100 J	NA	80 J	41 J	NA
Benzene	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	7 J	NA	14 UJ	5 J	NA
Bromodichloromethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
Bromoform	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Bromomethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Carbon disulfide	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Carbon tetrachloride	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
Chlorobenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Chloroethane	NA	14 UJ	NA	14 UJ	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Chloroform	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Chloromethane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Cyclohexane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
Dibromochloromethane	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Dichlorodifluoromethane (Freon-12)	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Ethylbenzene	NA	14 U	NA	14 U	NA	15 U	2 J	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Isopropylbenzene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Methyl acetate	NA	14 U	NA	7.5 J	NA	15 U	520 J	NA	NA	3.8 J	NA	11 U	NA	36	NA	27 J	NA	200 J	25	NA
Methyl-tert-butyl ether (MTBE)	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Methylcyclohexane	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	3 J	NA
Methylene chloride	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Styrene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Tetrachloroethene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
Toluene	NA	2.7 J	NA	1.3 J	NA	15 U	21 J	NA	NA	13 U	NA	11 U	NA	12 U	NA	10 J	NA	14 UJ	15 U	NA
Trichloroethene	NA	14 U	NA	4.4 J	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
Trichlorofluoromethane(Freon-11)	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Vinyl chloride	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
Xylene, total	NA	14 U	NA	14 U	NA	15 U	6 J	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA
cis-1,2-Dichloroethene	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
cis-1,3-Dichloropropene	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 UJ	15 U	NA
trans-1,2-Dichloroethene	NA	14 U	NA	14 U	NA	15 U	15 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 U	NA	14 U	15 U	NA
trans-1,3-Dichloropropene	NA	14 U	NA	14 U	NA	15 U	15 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	15 UJ	NA	14 UJ	15 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J18		MR04-J19		MR04-J20	
Sample ID	MR04-J18-0-1-07C	MR04-J18-07C	MR04-J19-0-1-07C	MR04-J19-07C	MR04-J20-0-1-07C	MR04-J20-07C
Sample Date	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name						
Volatile Organic Compounds (UG_KG)						
1,1,1-Trichloroethane	NA	11 U	NA	12 U	NA	16 U
1,1,2,2-Tetrachloroethane	NA	11 U	NA	12 UJ	NA	16 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	11 U	NA	12 U	NA	16 U
1,1,2-Trichloroethane	NA	11 U	NA	12 UJ	NA	16 UJ
1,1-Dichloroethane	NA	11 U	NA	12 U	NA	16 U
1,1-Dichloroethene	NA	11 U	NA	12 U	NA	16 U
1,2,4-Trichlorobenzene	NA	11 U	NA	12 UJ	NA	16 UJ
1,2-Dibromo-3-chloropropane	NA	11 U	NA	12 UJ	NA	16 UJ
1,2-Dibromoethane	NA	11 U	NA	12 UJ	NA	16 UJ
1,2-Dichlorobenzene	NA	11 U	NA	12 UJ	NA	16 UJ
1,2-Dichloroethane	NA	11 U	NA	12 U	NA	16 UJ
1,2-Dichloropropane	NA	11 U	NA	12 U	NA	16 UJ
1,3-Dichlorobenzene	NA	11 U	NA	12 UJ	NA	16 UJ
1,4-Dichlorobenzene	NA	11 U	NA	12 UJ	NA	16 UJ
2-Butanone	NA	5 J	NA	12 U	NA	16 U
2-Hexanone	NA	11 U	NA	12 UJ	NA	16 UJ
4-Methyl-2-pentanone	NA	11 U	NA	12 UJ	NA	16 UJ
Acetone	NA	16 J	NA	22 J	NA	48 J
Benzene	NA	3 J	NA	12 U	NA	16 UJ
Bromodichloromethane	NA	11 U	NA	12 U	NA	16 UJ
Bromoform	NA	11 U	NA	12 UJ	NA	16 UJ
Bromomethane	NA	11 U	NA	12 U	NA	16 U
Carbon disulfide	NA	11 U	NA	12 U	NA	16 U
Carbon tetrachloride	NA	11 U	NA	12 U	NA	16 UJ
Chlorobenzene	NA	11 U	NA	12 UJ	NA	16 UJ
Chloroethane	NA	11 U	NA	12 U	NA	16 U
Chloroform	NA	11 U	NA	12 U	NA	16 U
Chloromethane	NA	11 U	NA	12 U	NA	16 U
Cyclohexane	NA	11 U	NA	12 U	NA	16 UJ
Dibromochloromethane	NA	11 U	NA	12 UJ	NA	16 UJ
Dichlorodifluoromethane (Freon-12)	NA	11 U	NA	12 U	NA	16 U
Ethylbenzene	NA	11 U	NA	12 UJ	NA	16 UJ
Isopropylbenzene	NA	11 U	NA	12 UJ	NA	16 UJ
Methyl acetate	NA	14	NA	36	NA	73 J
Methyl-tert-butyl ether (MTBE)	NA	11 U	NA	12 U	NA	16 U
Methylcyclohexane	NA	2 J	NA	12 U	NA	16 UJ
Methylene chloride	NA	11 U	NA	12 U	NA	16 U
Styrene	NA	11 U	NA	12 UJ	NA	16 UJ
Tetrachloroethene	NA	11 U	NA	12 UJ	NA	16 UJ
Toluene	NA	2 J	NA	12 UJ	NA	16 UJ
Trichloroethene	NA	11 U	NA	12 U	NA	16 UJ
Trichlorofluoromethane(Freon-11)	NA	11 U	NA	12 U	NA	16 U
Vinyl chloride	NA	11 U	NA	12 U	NA	16 U
Xylene, total	NA	11 U	NA	12 UJ	NA	16 UJ
cis-1,2-Dichloroethene	NA	11 U	NA	12 U	NA	16 U
cis-1,3-Dichloropropene	NA	11 U	NA	12 U	NA	16 UJ
trans-1,2-Dichloroethene	NA	11 U	NA	12 U	NA	16 U
trans-1,3-Dichloropropene	NA	11 U	NA	12 UJ	NA	16 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H21		MR04-H22				MR04-H23		MR04-I01				MR04-I02		MR04-I03		MR04-I04		MR04-I05	
Sample ID	MR04-H21-0-1-07C	MR04-H21-07C	MR04-H22-0-1-07C	MR04-H22-07C	MR04-H22D-0-1-07C	MR04-H22D-07C	MR04-H23-0-1-07C	MR04-H23-07C	MR04-I01-0-1-07D	MR04-I01-07D	MR04-I01D-07D	MR04-I01D-0-1-07D	MR04-I02-0-1-07C	MR04-I02-07C	MR04-I03-0-1-07D	MR04-I03-07D	MR04-I04-0-1-07D	MR04-I04-07D	MR04-I05-0-1-07D	MR04-I05-07D
Sample Date	09/08/07	09/08/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/19/07	10/19/07	10/19/07	10/19/07	09/08/07	09/08/07	10/19/07	10/19/07	10/19/07	10/19/07	10/18/07	10/18/07
Chemical Name																				
Semi-volatile Organic Compounds (UG_KG)																				
1,1-Biphenyl	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2,2'-Oxybis(1-chloropropane)	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 UJ	NA	NA	370 UJ	430 U	NA	420 UJ	NA	430 UJ	NA	360 U	NA
2,4,5-Trichlorophenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	880 U	NA	NA	920 U	430 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
2,4,6-Trichlorophenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2,4-Dichlorophenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2,4-Dimethylphenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2,4-Dinitrophenol	2,500 UJ	NA	2,200 U	NA	1,900 U	NA	1,900 UJ	NA	880 U	NA	NA	920 U	2,200 UJ	NA	1,100 U	NA	1,100 U	NA	900 U	NA
2,4-Dinitrotoluene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2,6-Dinitrotoluene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2-Chloronaphthalene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2-Chlorophenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2-Methylnaphthalene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2-Methylphenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
2-Nitroaniline	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
2-Nitrophenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
3,3'-Dichlorobenzidine	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
3-Nitroaniline	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
4,6-Dinitro-2-methylphenol	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
4-Bromophenyl-phenylether	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
4-Chloro-3-methylphenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
4-Chloroaniline	970 U	NA	840 U	NA	760 U	NA	750 U	NA	350 U	NA	NA	370 U	860 U	NA	420 U	NA	430 U	NA	360 U	NA
4-Chlorophenyl-phenylether	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
4-Methylphenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
4-Nitroaniline	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
4-Nitrophenol	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
Acenaphthene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Acenaphthylene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Acetophenone	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Anthracene	35 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Atrazine	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Benzaldehyde	480 U	NA	420 UJ	NA	380 UJ	NA	370 U	NA	350 UJ	NA	NA	370 UJ	430 U	NA	420 UJ	NA	210 J	NA	360 U	NA
Benzo(a)anthracene	190 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Benzo(a)pyrene	250 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Benzo(b)fluoranthene	380 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Benzo(g,h,i)perylene	230 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Benzo(k)fluoranthene	210 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Butylbenzylphthalate	64 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Caprolactam	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	100 J	430 U	NA	340 J	NA	270 J	NA	360 U	NA
Carbazole	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Chrysene	310 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Di-n-butylphthalate	480 U	NA	23 J	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Di-n-octylphthalate	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Dibenz(a,h)anthracene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Dibenzofuran	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Diethylphthalate	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Dimethyl phthalate	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Fluoranthene	530	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Fluorene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Hexachlorobenzene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Hexachlorobutadiene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Hexachlorocyclopentadiene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 UJ	NA	NA	370 UJ	430 U	NA	420 UJ	NA	430 UJ	NA	360 U	NA
Hexachloroethane	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	190 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Isophorone	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Naphthalene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Nitrobenzene	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Pentachlorophenol	2,500 U	NA	2,200 U	NA	1,900 U	NA	1,900 U	NA	880 U	NA	NA	920 U	2,200 U	NA	1,100 U	NA	1,100 U	NA	900 U	NA
Phenanthrene	150 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Phenol	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
Pyrene	420 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
bis(2-Chloroethoxy)methane	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
bis(2-Chloroethyl)ether	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
bis(2-Ethylhexyl)phthalate	76 J	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	84 J	NA	430 U	NA	360 U	NA
n-Nitroso-di-n-propylamine	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA
n-Nitrosodiphenylamine	480 U	NA	420 U	NA	380 U	NA	370 U	NA	350 U	NA	NA	370 U	430 U	NA	420 U	NA	430 U	NA	360 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I06		MR04-I07		MR04-I08		MR04-I09		MR04-I10		MR04-I11		MR04-I12		MR04-I13				MR04-I14	
Sample ID	MR04-I06-0-1-07D	MR04-I06-07D	MR04-I07-0-1-07D	MR04-I07-07D	MR04-I08-0-1-07D	MR04-I08-07D	MR04-I09-07D	MR04-I09-0-1-07D	MR04-I10-0-1-07D	MR04-I10-07D	MR04-I11-0-1-07C	MR04-I11-07C	MR04-I12-0-1-07C	MR04-I12-07C	MR04-I13-0-1-07C	MR04-I13-07C	MR04-I13D-0-1-07C	MR04-I13D-07C	MR04-I14-07C	MR04-I14-0-1-07C
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																				
Semi-volatile Organic Compounds (UG_KG)																				
1,1-Biphenyl	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,2'-Oxybis(1-chloropropane)	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,4,5-Trichlorophenol	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,4,6-Trichlorophenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,4-Dichlorophenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,4-Dimethylphenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,4-Dinitrophenol	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 UJ	NA	NA	2,100 U
2,4-Dinitrotoluene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2,6-Dinitrotoluene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2-Chloronaphthalene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2-Chlorophenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2-Methylnaphthalene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2-Methylphenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
2-Nitroaniline	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
2-Nitrophenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
3,3'-Dichlorobenzidine	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
3-Nitroaniline	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
4,6-Dinitro-2-methylphenol	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
4-Bromophenyl-phenylether	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
4-Chloro-3-methylphenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
4-Chloroaniline	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	1,000 U	NA	770 U	NA	910 U	NA	880 U	NA	NA	820 U
4-Chlorophenyl-phenylether	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
4-Methylphenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
4-Nitroaniline	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
4-Nitrophenol	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
Acenaphthene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Acenaphthylene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Acetophenone	390 U	NA	350 U	NA	22 J	NA	NA	25 J	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Anthracene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	24 J	NA	520 U	NA	34 J	NA	450 U	NA	440 U	NA	NA	410 U
Atrazine	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Benzaldehyde	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Benzo(a)anthracene	18 J	NA	350 U	NA	31 J	NA	NA	29 J	88 J	NA	520 U	NA	310 J	NA	450 U	NA	440 U	NA	NA	44 J
Benzo(a)pyrene	19 J	NA	350 U	NA	35 J	NA	NA	34 J	80 J	NA	520 U	NA	330 J	NA	450 U	NA	440 U	NA	NA	55 J
Benzo(b)fluoranthene	26 J	NA	350 U	NA	47 J	NA	NA	54 J	98 J	NA	520 U	NA	470	NA	25 J	NA	440 U	NA	NA	90 J
Benzo(g,h,i)perylene	390 U	NA	350 U	NA	25 J	NA	NA	27 J	48 J	NA	520 U	NA	220 J	NA	450 U	NA	440 U	NA	NA	71 J
Benzo(k)fluoranthene	23 J	NA	350 U	NA	30 J	NA	NA	30 J	58 J	NA	520 U	NA	190 J	NA	450 U	NA	440 U	NA	NA	47 J
Butylbenzylphthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Caprolactam	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Carbazole	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	48 J	NA	450 U	NA	440 U	NA	NA	410 U
Chrysene	26 J	NA	350 U	NA	40 J	NA	NA	40 J	94 J	NA	520 U	NA	420	NA	450 U	NA	440 U	NA	NA	73 J
Di-n-butylphthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Di-n-octylphthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Dibenz(a,h)anthracene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Dibenzofuran	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Diethylphthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Dimethyl phthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Fluoranthene	40 J	NA	350 U	NA	78 J	NA	NA	85 J	220 J	NA	520 U	NA	800	NA	26 J	NA	26 J	NA	NA	130 J
Fluorene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Hexachlorobenzene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Hexachlorobutadiene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Hexachlorocyclopentadiene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Hexachloroethane	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Indeno(1,2,3-cd)pyrene	390 U	NA	350 U	NA	460 U	NA	NA	23 J	45 J	NA	520 U	NA	230 J	NA	450 U	NA	440 U	NA	NA	48 J
Isophorone	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Naphthalene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Nitrobenzene	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Pentachlorophenol	990 U	NA	890 U	NA	1,200 U	NA	NA	1,200 U	1,100 U	NA	2,700 U	NA	2,000 U	NA	2,300 U	NA	2,300 U	NA	NA	2,100 U
Phenanthrene	390 U	NA	350 U	NA	460 U	NA	NA	25 J	97 J	NA	520 U	NA	330 J	NA	450 U	NA	440 U	NA	NA	46 J
Phenol	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
Pyrene	33 J	NA	350 U	NA	56 J	NA	NA	58 J	150 J	NA	520 U	NA	690	NA	24 J	NA	440 U	NA	NA	99 J
bis(2-Chloroethoxy)methane	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
bis(2-Chloroethyl)ether	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
bis(2-Ethylhexyl)phthalate	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	160 J	NA	450 U	NA	440 U	NA	NA	42 J
n-Nitroso-di-n-propylamine	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U
n-Nitrosodiphenylamine	390 U	NA	350 U	NA	460 U	NA	NA	470 U	430 U	NA	520 U	NA	390 U	NA	450 U	NA	440 U	NA	NA	410 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I15		MR04-I16		MR04-I17		MR04-I18		MR04-I19		MR04-I20		MR04-I21		MR04-J01			
Sample ID	MR04-I15-0-1-07C	MR04-I15-07C	MR04-I16-0-1-07C	MR04-I16-07C	MR04-I17-07C	MR04-I17-0-1-07C	MR04-I18-0-1-07C	MR04-I18-07C	MR04-I19-0-1-07C	MR04-I19-07C	MR04-I20-0-1-07C	MR04-I20-07C	MR04-I21-07C	MR04-I21-0-1-07C	MR04-J01-0-1-07D	MR04-J01-07D	MR04-J01D-0-1-07D	MR04-J01D-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	10/18/07	10/18/07	10/18/07	10/18/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,2'-Oxybis(1-chloropropane)	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,4,5-Trichlorophenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	1,000 U	NA	970 U	NA
2,4,6-Trichlorophenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,4-Dichlorophenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,4-Dimethylphenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,4-Dinitrophenol	2,400 U	NA	1,900 UJ	NA	NA	2,400 U	1,900 UJ	NA	2,500 UJ	NA	1,900 U	NA	NA	2,400 UJ	1,000 U	NA	970 U	NA
2,4-Dinitrotoluene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2,6-Dinitrotoluene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2-Chloronaphthalene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2-Chlorophenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2-Methylnaphthalene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2-Methylphenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
2-Nitroaniline	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
2-Nitrophenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
3,3'-Dichlorobenzidine	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
3-Nitroaniline	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
4,6-Dinitro-2-methylphenol	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
4-Bromophenyl-phenylether	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
4-Chloro-3-methylphenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
4-Chloroaniline	930 U	NA	730 U	NA	NA	910 U	720 U	NA	990 U	NA	750 U	NA	NA	950 U	400 U	NA	380 U	NA
4-Chlorophenyl-phenylether	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
4-Methylphenol	470 U	NA	370 U	NA	NA	30 J	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
4-Nitroaniline	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
4-Nitrophenol	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
Acenaphthene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Acenaphthylene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Acetophenone	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	26 J	400 U	NA	380 U	NA
Anthracene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Atrazine	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Benzaldehyde	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Benzo(a)anthracene	470 U	NA	140 J	NA	NA	460 U	46 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Benzo(a)pyrene	470 U	NA	160 J	NA	NA	30 J	58 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Benzo(b)fluoranthene	26 J	NA	230 J	NA	NA	46 J	84 J	NA	490 U	NA	380 U	NA	NA	41 J	400 U	NA	380 U	NA
Benzo(g,h,i)perylene	470 U	NA	110 J	NA	NA	460 U	48 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Benzo(k)fluoranthene	470 U	NA	130 J	NA	NA	460 U	41 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Butylbenzylphthalate	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	38 J	NA	41 J	NA
Caprolactam	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Carbazole	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Chrysene	470 U	NA	190 J	NA	NA	41 J	70 J	NA	490 U	NA	380 U	NA	NA	26 J	400 U	NA	380 U	NA
Di-n-butylphthalate	470 U	NA	370 U	NA	NA	56 J	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Di-n-octylphthalate	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Dibenz(a,h)anthracene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Dibenzofuran	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Diethylphthalate	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Dimethyl phthalate	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Fluoranthene	38 J	NA	310 J	NA	NA	71 J	110 J	NA	490 U	NA	380 U	NA	NA	33 J	400 U	NA	380 U	NA
Fluorene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Hexachlorobenzene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Hexachlorobutadiene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Hexachlorocyclopentadiene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Hexachloroethane	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Indeno(1,2,3-cd)pyrene	470 U	NA	100 J	NA	NA	460 U	44 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Isophorone	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Naphthalene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Nitrobenzene	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Pentachlorophenol	2,400 U	NA	1,900 U	NA	NA	2,400 U	1,900 U	NA	2,500 U	NA	1,900 U	NA	NA	2,400 U	1,000 U	NA	970 U	NA
Phenanthrene	470 U	NA	100 J	NA	NA	460 U	32 J	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Phenol	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
Pyrene	29 J	NA	260 J	NA	NA	54 J	95 J	NA	490 U	NA	380 U	NA	NA	32 J	400 U	NA	380 U	NA
bis(2-Chloroethoxy)methane	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
bis(2-Chloroethyl)ether	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
bis(2-Ethylhexyl)phthalate	470 U	NA	76 J	NA	NA	460 U	50 J	NA	490 U	NA	39 J	NA	NA	470 U	400 U	NA	190 J	NA
n-Nitroso-di-n-propylamine	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA
n-Nitrosodiphenylamine	470 U	NA	370 U	NA	NA	460 U	360 U	NA	490 U	NA	380 U	NA	NA	470 U	400 U	NA	380 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J02				MR04-J03		MR04-J04		MR04-J05		MR04-J06		MR04-J07		MR04-J08				MR04-J09	
Sample ID	MR04-J02-0-1-07D	MR04-J02D-07D	MR04-J02D-0-1-07D	MR04-J02-07D	MR04-J03-0-1-07D	MR04-J03-07D	MR04-J04-0-1-07D	MR04-J04-07D	MR04-J05-0-1-07D	MR04-J05-07D	MR04-J06-0-1-07D	MR04-J06-07D	MR04-J07-0-1-07D	MR04-J07-07D	MR04-J08-0-1-07D	MR04-J08-07D	MR04-J08D-0-1-07D	MR04-J08D-07D	MR04-J09-0-1-07D	MR04-J09-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07
Chemical Name																				
Semi-volatile Organic Compounds (UG_KG)																				
1,1-Biphenyl	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,4,5-Trichlorophenol	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,4-Dichlorophenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,4-Dimethylphenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,4-Dinitrophenol	920 UJ	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 UJ	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
2,4-Dinitrotoluene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2,6-Dinitrotoluene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2-Chloronaphthalene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2-Chlorophenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2-Methylnaphthalene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2-Methylphenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
2-Nitroaniline	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
2-Nitrophenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
3,3'-Dichlorobenzidine	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
3-Nitroaniline	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
4-Chloro-3-methylphenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
4-Chloroaniline	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
4-Chlorophenyl-phenylether	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
4-Methylphenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
4-Nitroaniline	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
4-Nitrophenol	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
Acenaphthene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Acenaphthylene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Acetophenone	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	31 J	NA	470 U	NA	26 J	NA
Anthracene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Atrazine	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Benzaldehyde	370 U	NA	370 U	NA	420 U	NA	77 J	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Benzo(a)anthracene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	23 J	NA
Benzo(a)pyrene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Benzo(b)fluoranthene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	61 J	NA
Benzo(g,h,i)perylene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Benzo(k)fluoranthene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	53 J	NA
Butylbenzylphthalate	370 U	NA	370 U	NA	420 U	NA	56 J	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Caprolactam	370 U	NA	370 U	NA	140 J	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Carbazole	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Chrysene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	43 J	NA
Di-n-butylphthalate	370 U	NA	370 U	NA	420 U	NA	420 U	NA	24 J	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Di-n-octylphthalate	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Dibenz(a,h)anthracene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Dibenzofuran	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Diethylphthalate	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Dimethyl phthalate	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Fluoranthene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	40 J	NA
Fluorene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Hexachlorobenzene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Hexachlorobutadiene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Hexachlorocyclopentadiene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Hexachloroethane	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Isophorone	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Naphthalene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Nitrobenzene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Pentachlorophenol	920 U	NA	920 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA	900 U	NA	890 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA
Phenanthrene	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Phenol	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
Pyrene	370 UJ	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	59 J	NA
bis(2-Chloroethoxy)methane	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
bis(2-Chloroethyl)ether	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
bis(2-Ethylhexyl)phthalate	370 U	NA	370 U	NA	260 J	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA
n-Nitrosodiphenylamine	370 U	NA	370 U	NA	420 U	NA	420 U	NA	370 U	NA	360 U	NA	350 U	NA	430 U	NA	470 U	NA	430 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J10				MR04-J11		MR04-J12		MR04-J13				MR04-J14		MR04-J15		MR04-J16		MR04-J17	
Sample ID	MR04-J10-0-1-07C	MR04-J10-07C	MR04-J10D-0-1-07C	MR04-J10D-07C	MR04-J11-0-1-07C	MR04-J11-07C	MR04-J12-07C	MR04-J12-0-1-07C	MR04-J13-0-1-07C	MR04-J13-07C	MR04-J13D-0-1-07C	MR04-J13D-07C	MR04-J14-0-1-07C	MR04-J14-07C	MR04-J15-0-1-07C	MR04-J15-07C	MR04-J16-0-1-07C	MR04-J16-07C	MR04-J17-07C	MR04-J17-0-1-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/06/07	09/06/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																				
Semi-volatile Organic Compounds (UG_KG)																				
1,1-Biphenyl	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,2'-Oxybis(1-chloropropane)	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,4,5-Trichlorophenol	470 U	NA	450 U	NA	480 U	NA	NA	920 U	420 U	NA	360 U	NA	400 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
2,4,6-Trichlorophenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,4-Dichlorophenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,4-Dimethylphenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,4-Dinitrophenol	2,400 U	NA	2,300 UJ	NA	2,500 UJ	NA	NA	920 U	2,200 UJ	NA	1,900 UJ	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
2,4-Dinitrotoluene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2,6-Dinitrotoluene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2-Chloronaphthalene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2-Chlorophenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2-Methylnaphthalene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2-Methylphenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
2-Nitroaniline	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
2-Nitrophenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
3,3'-Dichlorobenzidine	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
3-Nitroaniline	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
4,6-Dinitro-2-methylphenol	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
4-Bromophenyl-phenylether	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
4-Chloro-3-methylphenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
4-Chloroaniline	940 U	NA	900 U	NA	950 U	NA	NA	370 U	850 U	NA	720 U	NA	790 U	NA	430 U	NA	450 U	NA	NA	460 U
4-Chlorophenyl-phenylether	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
4-Methylphenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
4-Nitroaniline	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
4-Nitrophenol	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
Acenaphthene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Acenaphthylene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Acetophenone	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Anthracene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	20 J	NA	400 U	NA	45 J	NA	450 U	NA	NA	460 U
Atrazine	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Benzaldehyde	470 UJ	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Benzo(a)anthracene	120 J	NA	110 J	NA	480 U	NA	NA	21 J	420 U	NA	73 J	NA	200 J	NA	330 J	NA	27 J	NA	NA	120 J
Benzo(a)pyrene	120 J	NA	120 J	NA	480 U	NA	NA	26 J	38 J	NA	64 J	NA	230 J	NA	320 J	NA	32 J	NA	NA	120 J
Benzo(b)fluoranthene	140 J	NA	160 J	NA	480 U	NA	NA	31 J	57 J	NA	93 J	NA	310 J	NA	470	NA	51 J	NA	NA	220 J
Benzo(g,h,i)perylene	84 J	NA	85 J	NA	480 U	NA	NA	18 J	31 J	NA	41 J	NA	180 J	NA	230 J	NA	44 J	NA	NA	170 J
Benzo(k)fluoranthene	89 J	NA	110 J	NA	480 U	NA	NA	38 J	26 J	NA	43 J	NA	190 J	NA	360 J	NA	36 J	NA	NA	170 J
Butylbenzylphthalate	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	34 J	NA	45 J	NA	28 J	NA	NA	24 J
Caprolactam	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Carbazole	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	27 J	NA	70 J	NA	450 U	NA	NA	23 J
Chrysene	140 J	NA	150 J	NA	480 U	NA	NA	32 J	44 J	NA	77 J	NA	290 J	NA	510	NA	51 J	NA	NA	200 J
Di-n-butylphthalate	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Di-n-octylphthalate	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Dibenz(a,h)anthracene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	56 J	NA	450 U	NA	NA	30 J
Dibenzofuran	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Diethylphthalate	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Dimethyl phthalate	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Fluoranthene	290 J	NA	300 J	NA	480 U	NA	NA	60 J	75 J	NA	140 J	NA	550	NA	1,200	NA	87 J	NA	NA	380 J
Fluorene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Hexachlorobenzene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Hexachlorobutadiene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Hexachlorocyclopentadiene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Hexachloroethane	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Indeno(1,2,3-cd)pyrene	75 J	NA	81 J	NA	480 U	NA	NA	370 U	420 U	NA	40 J	NA	160 J	NA	200 J	NA	34 J	NA	NA	130 J
Isophorone	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Naphthalene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Nitrobenzene	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Pentachlorophenol	2,400 U	NA	2,300 U	NA	2,500 U	NA	NA	920 U	2,200 U	NA	1,900 U	NA	2,000 U	NA	1,100 U	NA	1,100 U	NA	NA	1,200 U
Phenanthrene	88 J	NA	100 J	NA	480 U	NA	NA	22 J	29 J	NA	77 J	NA	210 J	NA	500	NA	33 J	NA	NA	120 J
Phenol	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
Pyrene	230 J	NA	220 J	NA	480 U	NA	NA	36 J	60 J	NA	120 J	NA	430	NA	900	NA	68 J	NA	NA	310 J
bis(2-Chloroethoxy)methane	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
bis(2-Chloroethyl)ether	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
bis(2-Ethylhexyl)phthalate	48 J	NA	450 U	NA	480 U	NA	NA	83 J	51 J	NA	67 J	NA	44 J	NA	400 J	NA	85 J	NA	NA	130 J
n-Nitroso-di-n-propylamine	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U
n-Nitrosodiphenylamine	470 U	NA	450 U	NA	480 U	NA	NA	370 U	420 U	NA	360 U	NA	400 U	NA	430 U	NA	450 U	NA	NA	460 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J18		MR04-J19		MR04-J20	
Sample ID	MR04-J18-0-1-07C	MR04-J18-07C	MR04-J19-0-1-07C	MR04-J19-07C	MR04-J20-0-1-07C	MR04-J20-07C
Sample Date	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name						
Semi-volatile Organic Compounds (UG_KG)						
1,1-Biphenyl	360 U	NA	380 U	NA	480 U	NA
2,2'-Oxybis(1-chloropropane)	360 U	NA	380 U	NA	480 U	NA
2,4,5-Trichlorophenol	910 U	NA	970 U	NA	1,200 U	NA
2,4,6-Trichlorophenol	360 U	NA	380 U	NA	480 U	NA
2,4-Dichlorophenol	360 U	NA	380 U	NA	480 U	NA
2,4-Dimethylphenol	360 U	NA	380 U	NA	480 U	NA
2,4-Dinitrophenol	910 U	NA	970 U	NA	1,200 U	NA
2,4-Dinitrotoluene	360 U	NA	380 U	NA	480 U	NA
2,6-Dinitrotoluene	360 U	NA	380 U	NA	480 U	NA
2-Chloronaphthalene	360 U	NA	380 U	NA	480 U	NA
2-Chlorophenol	360 U	NA	380 U	NA	480 U	NA
2-Methylnaphthalene	360 U	NA	380 U	NA	480 U	NA
2-Methylphenol	360 U	NA	380 U	NA	480 U	NA
2-Nitroaniline	910 U	NA	970 U	NA	1,200 U	NA
2-Nitrophenol	360 U	NA	380 U	NA	480 U	NA
3,3'-Dichlorobenzidine	360 U	NA	380 U	NA	480 U	NA
3-Nitroaniline	910 U	NA	970 U	NA	1,200 U	NA
4,6-Dinitro-2-methylphenol	910 U	NA	970 U	NA	1,200 U	NA
4-Bromophenyl-phenylether	360 U	NA	380 U	NA	480 U	NA
4-Chloro-3-methylphenol	360 U	NA	380 U	NA	480 U	NA
4-Chloroaniline	360 U	NA	380 U	NA	480 U	NA
4-Chlorophenyl-phenylether	360 U	NA	380 U	NA	480 U	NA
4-Methylphenol	360 U	NA	380 U	NA	480 U	NA
4-Nitroaniline	910 U	NA	970 U	NA	1,200 U	NA
4-Nitrophenol	910 U	NA	970 U	NA	1,200 U	NA
Acenaphthene	360 U	NA	380 U	NA	480 U	NA
Acenaphthylene	360 U	NA	380 U	NA	480 U	NA
Acetophenone	360 U	NA	380 U	NA	480 U	NA
Anthracene	53 J	NA	380 U	NA	480 U	NA
Atrazine	360 U	NA	380 U	NA	480 U	NA
Benzaldehyde	360 U	NA	380 U	NA	480 U	NA
Benzo(a)anthracene	420	NA	19 J	NA	480 U	NA
Benzo(a)pyrene	500	NA	19 J	NA	480 U	NA
Benzo(b)fluoranthene	720	NA	48 J	NA	480 U	NA
Benzo(g,h,i)perylene	250 J	NA	19 J	NA	480 U	NA
Benzo(k)fluoranthene	680	NA	33 J	NA	480 U	NA
Butylbenzylphthalate	19 J	NA	380 U	NA	480 U	NA
Caprolactam	360 U	NA	380 U	NA	480 U	NA
Carbazole	48 J	NA	380 U	NA	480 U	NA
Chrysene	640	NA	39 J	NA	480 U	NA
Di-n-butylphthalate	360 U	NA	380 U	NA	480 U	NA
Di-n-octylphthalate	360 U	NA	380 U	NA	480 U	NA
Dibenz(a,h)anthracene	64 J	NA	380 U	NA	480 U	NA
Dibenzofuran	360 U	NA	380 U	NA	480 U	NA
Diethylphthalate	360 U	NA	380 U	NA	480 U	NA
Dimethyl phthalate	360 U	NA	380 U	NA	480 U	NA
Fluoranthene	1,400	NA	72 J	NA	480 U	NA
Fluorene	360 U	NA	380 U	NA	480 U	NA
Hexachlorobenzene	360 U	NA	380 U	NA	480 U	NA
Hexachlorobutadiene	360 U	NA	380 U	NA	480 U	NA
Hexachlorocyclopentadiene	360 U	NA	380 U	NA	480 U	NA
Hexachloroethane	360 U	NA	380 U	NA	480 U	NA
Indeno(1,2,3-cd)pyrene	220 J	NA	380 U	NA	480 U	NA
Isophorone	360 U	NA	380 U	NA	480 U	NA
Naphthalene	360 U	NA	380 U	NA	480 U	NA
Nitrobenzene	360 U	NA	380 U	NA	480 U	NA
Pentachlorophenol	910 U	NA	970 U	NA	1,200 U	NA
Phenanthrene	420	NA	23 J	NA	480 U	NA
Phenol	360 U	NA	380 U	NA	480 U	NA
Pyrene	730	NA	45 J	NA	480 U	NA
bis(2-Chloroethoxy)methane	360 U	NA	380 U	NA	480 U	NA
bis(2-Chloroethyl)ether	360 U	NA	380 U	NA	480 U	NA
bis(2-Ethylhexyl)phthalate	59 J	NA	45 J	NA	480 U	NA
n-Nitroso-di-n-propylamine	360 U	NA	380 U	NA	480 U	NA
n-Nitrosodiphenylamine	360 U	NA	380 U	NA	480 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H21		MR04-H22				MR04-H23		MR04-I01				MR04-I02		MR04-I03		MR04-I04		MR04-I05	
Sample ID	MR04-H21-0-1-07C	MR04-H21-07C	MR04-H22-0-1-07C	MR04-H22-07C	MR04-H22D-0-1-07C	MR04-H22D-07C	MR04-H23-0-1-07C	MR04-H23-07C	MR04-I01-0-1-07D	MR04-I01-07D	MR04-I01D-07D	MR04-I01D-0-1-07D	MR04-I02-0-1-07C	MR04-I02-07C	MR04-I03-0-1-07D	MR04-I03-07D	MR04-I04-0-1-07D	MR04-I04-07D	MR04-I05-0-1-07D	MR04-I05-07D
Sample Date	09/08/07	09/08/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/19/07	10/19/07	10/19/07	10/19/07	09/08/07	09/08/07	10/19/07	10/19/07	10/19/07	10/19/07	10/18/07	10/18/07
Chemical Name																				
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	0.6 J	NA	4.2 U	NA	3.8 U	NA	0.45 J	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
4,4'-DDE	2.4 J	NA	4.2 U	NA	1.2 J	NA	9.2 J	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	13	NA	12	NA
4,4'-DDT	7.8	NA	4.2 U	NA	3.5 J	NA	8.9 J	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	5.5 J	NA	6.4	NA
Aldrin	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Aroclor-1016	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	43 U	NA	36 U	NA
Aroclor-1221	99 U	NA	85 U	NA	77 U	NA	76 UJ	NA	71 U	NA	NA	74 U	87 U	NA	86 U	NA	88 U	NA	73 U	NA
Aroclor-1232	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	43 U	NA	36 U	NA
Aroclor-1242	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	43 U	NA	36 U	NA
Aroclor-1248	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	43 U	NA	36 U	NA
Aroclor-1254	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	43 U	NA	36 U	NA
Aroclor-1260	49 U	NA	42 U	NA	38 U	NA	38 UJ	NA	35 U	NA	NA	37 U	43 U	NA	42 U	NA	26 J	NA	36 U	NA
Dieldrin	4.9 U	NA	4.2 U	NA	0.4 J	NA	1.4 J	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	2.5 J	NA	9.2	NA
Endosulfan I	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Endosulfan II	4.9 U	NA	4.2 U	NA	3.8 U	NA	3.8 UJ	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
Endosulfan sulfate	4.9 U	NA	4.2 U	NA	3.8 U	NA	3.8 UJ	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
Endrin	4.9 U	NA	4.2 U	NA	3.8 U	NA	0.65 J	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
Endrin aldehyde	4.9 U	NA	4.2 U	NA	3.8 U	NA	3.8 UJ	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
Endrin ketone	4.9 U	NA	4.2 U	NA	3.8 U	NA	3.8 UJ	NA	3.5 U	NA	NA	3.7 U	4.3 U	NA	4.2 U	NA	4.3 U	NA	3.6 U	NA
Heptachlor	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Heptachlor epoxide	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Methoxychlor	25 U	NA	21 U	NA	19 U	NA	19 UJ	NA	18 U	NA	NA	19 U	22 U	NA	22 U	NA	22 U	NA	18 U	NA
Toxaphene	250 U	NA	210 U	NA	190 U	NA	190 UJ	NA	180 U	NA	NA	190 U	220 U	NA	220 U	NA	220 U	NA	180 U	NA
alpha-BHC	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
alpha-Chlordane	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
beta-BHC	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
delta-BHC	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
gamma-BHC (Lindane)	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
gamma-Chlordane	2.5 U	NA	2.1 U	NA	1.9 U	NA	1.9 UJ	NA	1.8 U	NA	NA	1.9 U	2.2 U	NA	2.2 U	NA	2.2 U	NA	1.8 U	NA
Explosives (UG_KG)																				
1,3,5-Trinitrobenzene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	72 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I06		MR04-I07		MR04-I08		MR04-I09		MR04-I10		MR04-I11		MR04-I12		MR04-I13				MR04-I14	
Sample ID	MR04-I06-0-1-07D	MR04-I06-07D	MR04-I07-0-1-07D	MR04-I07-07D	MR04-I08-0-1-07D	MR04-I08-07D	MR04-I09-07D	MR04-I09-0-1-07D	MR04-I10-0-1-07D	MR04-I10-07D	MR04-I11-0-1-07C	MR04-I11-07C	MR04-I12-0-1-07C	MR04-I12-07C	MR04-I13-0-1-07C	MR04-I13-07C	MR04-I13D-0-1-07C	MR04-I13D-07C	MR04-I14-07C	MR04-I14-0-1-07C
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																				
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	25	NA	13	NA	4.6 U	NA	NA	4.7 U	8.8	NA	1.3 J	NA	0.72 J	NA	4.5 UJ	NA	1.1 J	NA	NA	4.1 U
4,4'-DDE	250	NA	220	NA	69	NA	NA	18	240	NA	5.3	NA	7.5	NA	1.1 J	NA	5.4	NA	NA	1.5 J
4,4'-DDT	100	NA	140	NA	27	NA	NA	8.6	53	NA	3.6 J	NA	4 J	NA	0.78 J	NA	16	NA	NA	0.88 J
Aldrin	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 UJ	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
Aroclor-1016	39 U	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Aroclor-1221	80 U	NA	72 U	NA	93 U	NA	NA	96 U	87 U	NA	100 U	NA	78 U	NA	91 UJ	NA	89 U	NA	NA	83 U
Aroclor-1232	39 U	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Aroclor-1242	39 U	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Aroclor-1248	39 U	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Aroclor-1254	39 U	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Aroclor-1260	140 J	NA	36 U	NA	46 U	NA	NA	47 U	43 U	NA	52 U	NA	38 U	NA	45 UJ	NA	44 U	NA	NA	41 U
Dieldrin	9.9	NA	20	NA	4.6 U	NA	NA	4.7 U	3.1 J	NA	0.88 J	NA	1.2 J	NA	4.5 UJ	NA	0.47 J	NA	NA	4.1 U
Endosulfan I	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
Endosulfan II	3.9 U	NA	3.6 U	NA	4.6 U	NA	NA	4.7 U	4.3 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.4 U	NA	NA	4.1 U
Endosulfan sulfate	3.9 U	NA	3.6 U	NA	4.6 U	NA	NA	4.7 U	4.3 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.4 U	NA	NA	4.1 U
Endrin	3.9 U	NA	3.6 U	NA	4.6 U	NA	NA	4.7 U	4.3 U	NA	5.2 U	NA	3.8 UJ	NA	4.5 UJ	NA	4.4 U	NA	NA	4.1 U
Endrin aldehyde	3.9 U	NA	3.6 U	NA	4.6 U	NA	NA	4.7 U	8.2 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.4 U	NA	NA	4.1 U
Endrin ketone	3.9 U	NA	1.8 J	NA	4.6 U	NA	NA	4.7 U	4.3 U	NA	5.2 U	NA	3.8 U	NA	4.5 UJ	NA	4.4 U	NA	NA	4.1 U
Heptachlor	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 UJ	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
Heptachlor epoxide	2.2 J	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
Methoxychlor	20 U	NA	18 U	NA	24 U	NA	NA	24 U	22 U	NA	27 U	NA	20 U	NA	23 UJ	NA	23 U	NA	NA	21 U
Toxaphene	200 U	NA	180 U	NA	240 U	NA	NA	240 U	220 U	NA	270 U	NA	200 U	NA	230 UJ	NA	230 U	NA	NA	210 U
alpha-BHC	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
alpha-Chlordane	26	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	5.7 J	NA	17	NA	NA	2.1 U
beta-BHC	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
delta-BHC	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
gamma-BHC (Lindane)	2 U	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 UJ	NA	2.3 UJ	NA	2.3 U	NA	NA	2.1 U
gamma-Chlordane	17	NA	1.8 U	NA	2.4 U	NA	NA	2.4 U	2.2 U	NA	2.7 U	NA	2 U	NA	2.3 UJ	NA	4.7 J	NA	NA	2.1 U
Explosives (UG_KG)																				
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
HMX	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
RDX	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
Tetryl	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I15		MR04-I16		MR04-I17		MR04-I18		MR04-I19		MR04-I20		MR04-I21		MR04-J01			
Sample ID	MR04-I15-0-1-07C	MR04-I15-07C	MR04-I16-0-1-07C	MR04-I16-07C	MR04-I17-07C	MR04-I17-0-1-07C	MR04-I18-0-1-07C	MR04-I18-07C	MR04-I19-0-1-07C	MR04-I19-07C	MR04-I20-0-1-07C	MR04-I20-07C	MR04-I21-07C	MR04-I21-0-1-07C	MR04-J01-0-1-07D	MR04-J01-07D	MR04-J01D-0-1-07D	MR04-J01D-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	10/18/07	10/18/07	10/18/07	10/18/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.1 J	NA	3.7 U	NA	NA	4.5 U	0.54 J	NA	0.79 J	NA	1.3 J	NA	NA	1.2 J	4 U	NA	3.8 U	NA
4,4'-DDE	33	NA	9.6 J	NA	NA	3.4 J	1.8 J	NA	8.3	NA	28	NA	NA	24	4 U	NA	3.8 U	NA
4,4'-DDT	42	NA	5.1 J	NA	NA	4.5 J	2.1 J	NA	8.5	NA	7.6 J	NA	NA	16	4 U	NA	3.8 U	NA
Aldrin	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
Aroclor-1016	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Aroclor-1221	94 U	NA	75 U	NA	NA	91 U	73 U	NA	100 U	NA	76 U	NA	NA	96 U	81 U	NA	78 U	NA
Aroclor-1232	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Aroclor-1242	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Aroclor-1248	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Aroclor-1254	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Aroclor-1260	46 U	NA	37 U	NA	NA	45 U	36 U	NA	50 U	NA	37 U	NA	NA	47 U	40 U	NA	38 U	NA
Dieldrin	4.6 U	NA	0.72 J	NA	NA	0.93 J	2 J	NA	0.74 J	NA	1.1 J	NA	NA	3.4 J	4 U	NA	3.8 U	NA
Endosulfan I	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
Endosulfan II	4.6 U	NA	3.7 U	NA	NA	4.5 U	3.6 U	NA	5 U	NA	3.7 U	NA	NA	4.7 U	4 U	NA	3.8 U	NA
Endosulfan sulfate	4.6 U	NA	3.7 U	NA	NA	4.5 U	3.6 U	NA	5 U	NA	3.7 U	NA	NA	4.7 U	4 U	NA	3.8 U	NA
Endrin	9.9	NA	3.7 U	NA	NA	4.5 U	3.6 U	NA	5 U	NA	3.7 U	NA	NA	4.7 U	4 U	NA	3.8 U	NA
Endrin aldehyde	4.6 U	NA	3.7 U	NA	NA	4.5 U	3.6 U	NA	5 U	NA	3.7 U	NA	NA	4.7 U	5 U	NA	3.8 U	NA
Endrin ketone	4.6 U	NA	3.7 U	NA	NA	4.5 U	3.6 U	NA	5 U	NA	3.7 U	NA	NA	4.7 U	4 U	NA	3.8 U	NA
Heptachlor	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
Heptachlor epoxide	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
Methoxychlor	24 U	NA	19 U	NA	NA	23 U	19 U	NA	26 U	NA	19 U	NA	NA	24 U	20 U	NA	20 U	NA
Toxaphene	240 U	NA	190 U	NA	NA	230 U	190 U	NA	260 U	NA	190 U	NA	NA	240 U	200 U	NA	200 U	NA
alpha-BHC	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
alpha-Chlordane	2.4 U	NA	1.9 U	NA	NA	2.3 U	8.7 J	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
beta-BHC	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
delta-BHC	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
gamma-BHC (Lindane)	2.4 U	NA	1.9 U	NA	NA	2.3 U	1.9 U	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
gamma-Chlordane	2.4 U	NA	1.9 U	NA	NA	2.3 U	7.8 J	NA	2.6 U	NA	1.9 U	NA	NA	2.4 U	2 U	NA	2 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J02				MR04-J03		MR04-J04		MR04-J05		MR04-J06		MR04-J07		MR04-J08				MR04-J09	
Sample ID	MR04-J02-0-1-07D	MR04-J02D-07D	MR04-J02D-0-1-07D	MR04-J02-07D	MR04-J03-0-1-07D	MR04-J03-07D	MR04-J04-0-1-07D	MR04-J04-07D	MR04-J05-0-1-07D	MR04-J05-07D	MR04-J06-0-1-07D	MR04-J06-07D	MR04-J07-0-1-07D	MR04-J07-07D	MR04-J08-0-1-07D	MR04-J08-07D	MR04-J08D-0-1-07D	MR04-J08D-07D	MR04-J09-0-1-07D	MR04-J09-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07
Chemical Name																				
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	17	NA	3.6 U	NA	3.5 U	NA	6.8	NA	9.2	NA	4.3 U	NA
4,4'-DDE	2.7 J	NA	2.6 J	NA	10	NA	19	NA	170	NA	4.6	NA	55	NA	120	NA	170	NA	15	NA
4,4'-DDT	3.7 U	NA	3.7 U	NA	3.8 J	NA	11	NA	52	NA	5.2	NA	19	NA	23	NA	28	NA	8.8	NA
Aldrin	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
Aroclor-1016	37 U	NA	37 U	NA	42 U	NA	42 U	NA	37 U	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Aroclor-1221	74 U	NA	74 U	NA	85 U	NA	86 U	NA	75 U	NA	73 U	NA	72 U	NA	87 U	NA	96 U	NA	87 U	NA
Aroclor-1232	37 U	NA	37 U	NA	42 U	NA	42 U	NA	37 U	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Aroclor-1242	37 U	NA	37 U	NA	42 U	NA	42 U	NA	37 U	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Aroclor-1248	37 U	NA	37 U	NA	42 U	NA	42 U	NA	37 U	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Aroclor-1254	37 U	NA	37 U	NA	42 U	NA	42 U	NA	37 U	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Aroclor-1260	37 U	NA	37 U	NA	42 U	NA	23 J	NA	55	NA	36 U	NA	35 U	NA	43 U	NA	47 U	NA	43 U	NA
Dieldrin	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	6.1	NA	3.6 U	NA	5.2	NA	4.3 U	NA	4.7 U	NA	11 J	NA
Endosulfan I	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
Endosulfan II	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.7 U	NA	4.3 U	NA
Endosulfan sulfate	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.7 U	NA	3.5 J	NA
Endrin	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.7 J	NA	4.7 U	NA	4.3 U	NA
Endrin aldehyde	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.7 U	NA	4.3 U	NA
Endrin ketone	3.7 U	NA	3.7 U	NA	4.2 U	NA	4.2 U	NA	3.7 U	NA	3.6 U	NA	3.5 U	NA	4.3 U	NA	4.7 U	NA	4.3 U	NA
Heptachlor	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
Heptachlor epoxide	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
Methoxychlor	19 U	NA	19 U	NA	22 U	NA	22 U	NA	19 U	NA	18 U	NA	18 U	NA	22 U	NA	24 U	NA	22 U	NA
Toxaphene	190 U	NA	190 U	NA	220 U	NA	220 U	NA	190 U	NA	180 U	NA	180 U	NA	220 U	NA	240 U	NA	220 U	NA
alpha-BHC	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
alpha-Chlordane	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
beta-BHC	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
delta-BHC	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
gamma-BHC (Lindane)	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
gamma-Chlordane	1.9 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.4 U	NA	2.2 U	NA
Explosives (UG_KG)																				
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J10				MR04-J11		MR04-J12		MR04-J13				MR04-J14		MR04-J15		MR04-J16		MR04-J17	
Sample ID	MR04-J10-0-1-07C	MR04-J10-07C	MR04-J10D-0-1-07C	MR04-J10D-07C	MR04-J11-0-1-07C	MR04-J11-07C	MR04-J12-07C	MR04-J12-0-1-07C	MR04-J13-0-1-07C	MR04-J13-07C	MR04-J13D-0-1-07C	MR04-J13D-07C	MR04-J14-0-1-07C	MR04-J14-07C	MR04-J15-0-1-07C	MR04-J15-07C	MR04-J16-0-1-07C	MR04-J16-07C	MR04-J17-07C	MR04-J17-0-1-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/06/07	09/06/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																				
Pesticide/Polychlorinated Biphenyls (UG_KG)																				
4,4'-DDD	1.7 J	NA	15	NA	0.85 J	NA	NA	3.7 U	0.68 J	NA	2.1 J	NA	4 U	NA	24	NA	4.5 U	NA	NA	4.7 U
4,4'-DDE	46	NA	23	NA	19	NA	NA	13	5.2	NA	15	NA	2.1 J	NA	770	NA	33	NA	NA	11 J
4,4'-DDT	22	NA	690 R	NA	15	NA	NA	15	6.6	NA	16	NA	2.1 J	NA	660	NA	21	NA	NA	7.9
Aldrin	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
Aroclor-1016	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Aroclor-1221	95 U	NA	190 U	NA	97 U	NA	NA	74 U	86 U	NA	73 U	NA	81 U	NA	170 U	NA	92 U	NA	NA	94 U
Aroclor-1232	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Aroclor-1242	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Aroclor-1248	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Aroclor-1254	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Aroclor-1260	47 U	NA	91 U	NA	48 U	NA	NA	37 U	42 U	NA	36 U	NA	40 U	NA	86 U	NA	45 U	NA	NA	47 U
Dieldrin	4.2 J	NA	9.1 U	NA	4.6 J	NA	NA	5.2	0.65 J	NA	1.1 J	NA	4 U	NA	4.9 J	NA	3.3 J	NA	NA	36
Endosulfan I	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
Endosulfan II	4.7 U	NA	9.1 U	NA	4.8 U	NA	NA	3.7 U	4.2 U	NA	3.6 U	NA	4 U	NA	8.6 U	NA	4.5 U	NA	NA	4.7 U
Endosulfan sulfate	4.7 U	NA	9.1 U	NA	4.8 U	NA	NA	3.7 U	4.2 U	NA	3.6 U	NA	4 U	NA	8.6 U	NA	4.5 U	NA	NA	4.7 U
Endrin	2.6 J	NA	9.1 U	NA	4.8 U	NA	NA	3.7 U	4.2 U	NA	3.6 U	NA	4 U	NA	8.6 U	NA	4.5 U	NA	NA	4.7 U
Endrin aldehyde	4.7 U	NA	9.1 U	NA	4.8 U	NA	NA	3.4 J	4.2 U	NA	3.6 U	NA	4 U	NA	8.6 U	NA	4.5 U	NA	NA	4.7 U
Endrin ketone	4.7 U	NA	9.1 U	NA	4.8 U	NA	NA	3.7 U	4.2 U	NA	3.6 U	NA	4 U	NA	8.6 U	NA	4.5 U	NA	NA	4.7 U
Heptachlor	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
Heptachlor epoxide	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
Methoxychlor	24 U	NA	47 U	NA	25 U	NA	NA	19 U	22 U	NA	19 U	NA	20 U	NA	44 U	NA	23 U	NA	NA	24 U
Toxaphene	240 U	NA	470 U	NA	250 U	NA	NA	190 U	220 U	NA	190 U	NA	200 U	NA	440 U	NA	230 U	NA	NA	240 U
alpha-BHC	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
alpha-Chlordane	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	15 J
beta-BHC	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
delta-BHC	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
gamma-BHC (Lindane)	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	2.4 U
gamma-Chlordane	2.4 U	NA	4.7 U	NA	2.5 U	NA	NA	1.9 U	2.2 U	NA	1.9 U	NA	2 U	NA	4.4 U	NA	2.3 U	NA	NA	7
Explosives (UG_KG)																				
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
HMX	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
RDX	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U
Tetryl	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J18		MR04-J19		MR04-J20	
Sample ID	MR04-J18-0-1-07C	MR04-J18-07C	MR04-J19-0-1-07C	MR04-J19-07C	MR04-J20-0-1-07C	MR04-J20-07C
Sample Date	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name						
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	3.6 U	NA	35	NA	4.9 U	NA
4,4'-DDE	3.6 U	NA	370	NA	25	NA
4,4'-DDT	3.1 J	NA	210	NA	15	NA
Aldrin	1.9 U	NA	2 U	NA	2.5 U	NA
Aroclor-1016	36 U	NA	38 U	NA	49 U	NA
Aroclor-1221	74 U	NA	78 U	NA	99 U	NA
Aroclor-1232	36 U	NA	38 U	NA	49 U	NA
Aroclor-1242	36 U	NA	38 U	NA	49 U	NA
Aroclor-1248	36 U	NA	38 U	NA	49 U	NA
Aroclor-1254	36 U	NA	38 U	NA	49 U	NA
Aroclor-1260	36 U	NA	38 U	NA	49 U	NA
Dieldrin	3.6 U	NA	3.5 J	NA	12	NA
Endosulfan I	1.9 U	NA	2 U	NA	2.5 U	NA
Endosulfan II	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endosulfan sulfate	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin aldehyde	3.6 U	NA	3.8 U	NA	4.9 U	NA
Endrin ketone	3.6 U	NA	3.8 U	NA	4.9 U	NA
Heptachlor	1.9 U	NA	2 U	NA	2.5 U	NA
Heptachlor epoxide	1.9 U	NA	2 U	NA	2.5 U	NA
Methoxychlor	19 U	NA	20 U	NA	25 U	NA
Toxaphene	190 U	NA	200 U	NA	250 U	NA
alpha-BHC	1.9 U	NA	2 U	NA	2.5 U	NA
alpha-Chlordane	1.9 U	NA	0.99 J	NA	2.5 U	NA
beta-BHC	1.9 U	NA	2 U	NA	2.5 U	NA
delta-BHC	1.9 U	NA	2 U	NA	2.5 U	NA
gamma-BHC (Lindane)	1.9 U	NA	2 U	NA	2.5 U	NA
gamma-Chlordane	1.9 U	NA	2 U	NA	2.5 U	NA
Explosives (UG_KG)						
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H21		MR04-H22				MR04-H23		MR04-I01				MR04-I02		MR04-I03		MR04-I04		MR04-I05	
Sample ID	MR04-H21-0-1-07C	MR04-H21-07C	MR04-H22-0-1-07C	MR04-H22-07C	MR04-H22D-0-1-07C	MR04-H22D-07C	MR04-H23-0-1-07C	MR04-H23-07C	MR04-I01-0-1-07D	MR04-I01-07D	MR04-I01D-07D	MR04-I01D-0-1-07D	MR04-I02-0-1-07C	MR04-I02-07C	MR04-I03-0-1-07D	MR04-I03-07D	MR04-I04-0-1-07D	MR04-I04-07D	MR04-I05-0-1-07D	MR04-I05-07D
Sample Date	09/08/07	09/08/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/19/07	10/19/07	10/19/07	10/19/07	09/08/07	09/08/07	10/19/07	10/19/07	10/19/07	10/19/07	10/18/07	10/18/07
Chemical Name																				
Total Metals (MG_KG)																				
Aluminum	5,710	NA	6,060	NA	6,050	NA	5,170	NA	2,170	NA	NA	2,320	4,120	NA	5,740	NA	5,860	NA	3,030	NA
Antimony	6.5 UJ	NA	5.7 UJ	NA	5.1 UJ	NA	0.25 J	NA	4.8 UJ	NA	NA	4.9 UJ	5.7 UJ	NA	5.8 UJ	NA	6 UJ	NA	0.53 J	NA
Arsenic	2.4	NA	2	NA	2	NA	2.2	NA	0.8 U	NA	NA	0.86	1.1	NA	1.2	NA	1.3	NA	0.85	NA
Barium	16.5 J	NA	18 J	NA	17 J	NA	17.3 J	NA	10.9 J	NA	NA	11.4 J	9.1 J	NA	20.7	NA	20.2	NA	11.3 J	NA
Beryllium	0.05 J	NA	0.031 J	NA	0.046 J	NA	0.058 J	NA	0.4 U	NA	NA	0.41 U	0.48 U	NA	0.094 J	NA	0.081 J	NA	0.045 J	NA
Cadmium	0.21 J	NA	0.072 J	NA	0.067 J	NA	0.085 J	NA	0.03 J	NA	NA	0.048 J	0.046 J	NA	0.054 J	NA	0.088 J	NA	0.4 U	NA
Calcium	37,000	NA	1,160 J	NA	962 J	NA	3,020 J	NA	186 J	NA	NA	203 J	108 J	NA	180 J	NA	13,800	NA	509	NA
Chromium	9.1	NA	7.1	NA	7.7	NA	6.7	NA	2.5	NA	NA	2.6	3.6	NA	4	NA	6	NA	2.4	NA
Cobalt	0.38 J	NA	0.3 J	NA	0.33 J	NA	0.3 J	NA	0.11 J	NA	NA	0.12 J	0.15 J	NA	0.2 J	NA	0.27 J	NA	0.1 J	NA
Copper	3.2	NA	3	NA	4.1	NA	2.4	NA	0.55 J	NA	NA	0.63 J	0.94 J	NA	0.95 J	NA	1.3 J	NA	0.67 J	NA
Cyanide	3.2 U	NA	3 U	NA	2.6 U	NA	2.6 U	NA	2.5 U	NA	NA	2.7 U	3.3 U	NA	3.2 U	NA	3.1 U	NA	2.7 U	NA
Iron	4,100	NA	4,480	NA	4,630	NA	4,240	NA	1,880	NA	NA	2,040	2,270 J	NA	2,350	NA	2,810	NA	1,820	NA
Lead	28.5	NA	14.9	NA	18.2	NA	17.2	NA	9.5 J	NA	NA	9.7 J	5.6	NA	9.5 J	NA	13.3 J	NA	8.8	NA
Magnesium	1,780	NA	204 J	NA	223 J	NA	288 J	NA	76.3 J	NA	NA	82.3 J	123 J	NA	171 J	NA	433 J	NA	94.2 J	NA
Manganese	18.7	NA	11.7 J	NA	11.3 J	NA	13.3 J	NA	12.4	NA	NA	13.5	11.9 J	NA	14	NA	16.9	NA	4.9	NA
Mercury	0.02 J	NA	0.22 U	NA	0.11 U	NA	0.032 J	NA	0.1 U	NA	NA	0.025 J	0.1 U	NA	0.054 J	NA	0.042 J	NA	0.018 J	NA
Nickel	2.3 J	NA	1.4 J	NA	1.5 J	NA	1.3 J	NA	0.62 J	NA	NA	0.71 J	1.1 J	NA	1.3 J	NA	1.6 J	NA	3.2 U	NA
Potassium	192 J	NA	222 J	NA	232 J	NA	272 J	NA	86.6 J	NA	NA	94.5 J	117 J	NA	144 J	NA	202 J	NA	67.7 J	NA
Selenium	0.68 J	NA	3.3 U	NA	3 U	NA	0.28 J	NA	2.8 U	NA	NA	2.9 U	3.3 U	NA	3.4 U	NA	3.5 U	NA	0.28 J	NA
Silver	1.1 U	NA	0.94 U	NA	0.84 U	NA	0.86 U	NA	0.8 U	NA	NA	0.82 U	0.95 U	NA	0.97 U	NA	1 U	NA	0.8 U	NA
Sodium	76.7 J	NA	29.6 J	NA	26.6 J	NA	33.8 J	NA	7.5 J	NA	NA	9.3 J	11.9 J	NA	16.1 J	NA	37.7 J	NA	397 U	NA
Thallium	2.7 U	NA	2.4 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	NA	2.1 U	2.4 U	NA	2.4 U	NA	2.5 U	NA	2 U	NA
Vanadium	11.3	NA	10.2	NA	10.7	NA	10.2	NA	5.3	NA	NA	5.7	6	NA	6.6	NA	8.7	NA	4.9	NA
Zinc	45.7	NA	17.3	NA	17.9	NA	71.4	NA	2 J	NA	NA	2.2 J	2.9 J	NA	3.9 J	NA	7.2	NA	3.8 J	NA
Wet Chemistry (MG_KG)																				
Perchlorate	0.0029 U	NA	0.0026 U	NA	0.0023 U	NA	0.0023 U	NA	0.0021 U	NA	NA	0.0022 U	0.0026 U	NA	0.0026 U	NA	0.0026 U	NA	0.0022 U	NA

Notes:
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J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value biased low
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I06		MR04-I07		MR04-I08		MR04-I09		MR04-I10		MR04-I11		MR04-I12		MR04-I13				MR04-I14	
Sample ID	MR04-I06-0-1-07D	MR04-I06-07D	MR04-I07-0-1-07D	MR04-I07-07D	MR04-I08-0-1-07D	MR04-I08-07D	MR04-I09-07D	MR04-I09-0-1-07D	MR04-I10-0-1-07D	MR04-I10-07D	MR04-I11-0-1-07C	MR04-I11-07C	MR04-I12-0-1-07C	MR04-I12-07C	MR04-I13-0-1-07C	MR04-I13-07C	MR04-I13D-0-1-07C	MR04-I13D-07C	MR04-I14-07C	MR04-I14-0-1-07C
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																				
Total Metals (MG_KG)																				
Aluminum	4,780	NA	3,970	NA	3,380	NA	NA	3,030	3,730	NA	5,280	NA	4,150	NA	4,710	NA	3,840	NA	NA	2,640
Antimony	5.2 UJ	NA	4.8 UJ	NA	6.3 UJ	NA	NA	6.1 UJ	5.9 UJ	NA	6.4 U	NA	5 UJ	NA	5.9 UJ	NA	5.2 UJ	NA	NA	5 UJ
Arsenic	1.6	NA	1.1	NA	0.73 J	NA	NA	0.53 J	1.3	NA	1.6	NA	2.2	NA	1.4	NA	1.6	NA	NA	1.7
Barium	19	NA	51	NA	18.5 J	NA	NA	38.5	19.6	NA	24 J	NA	89.7 J	NA	13.4 J	NA	11.8 J	NA	NA	16.3 J
Beryllium	0.058 J	NA	0.056 J	NA	0.027 J	NA	NA	0.019 J	0.077 J	NA	0.53 U	NA	0.42 U	NA	0.49 U	NA	0.035 J	NA	NA	0.15 J
Cadmium	0.44 U	NA	0.4 U	NA	0.52 U	NA	NA	0.51 U	0.49 U	NA	0.14 J	NA	0.21 J	NA	0.19 J	NA	0.14 J	NA	NA	0.44
Calcium	49,600	NA	34,000	NA	2,530	NA	NA	1,490	51,300	NA	2,440 J	NA	34,200 J	NA	7,400 J	NA	8,520	NA	NA	22,100
Chromium	8.9	NA	6.1	NA	5.2	NA	NA	3.6	10	NA	6.3	NA	7.1	NA	7.5	NA	5.7	NA	NA	15.4
Cobalt	0.3 J	NA	0.26 J	NA	0.18 J	NA	NA	0.2	0.95 J	NA	5.3 U	NA	4.2 U	NA	4.9 U	NA	0.59 J	NA	NA	1.5 J
Copper	5.4	NA	2 U	NA	2.6 U	NA	NA	6.7	2.6	NA	11.2	NA	7.4	NA	1.8 J	NA	1.5 J	NA	NA	1.2 J
Cyanide	2.7 U	NA	2.7 U	NA	3.5 U	NA	NA	2.9 U	3 U	NA	3.8 U	NA	2.7 U	NA	3.4 U	NA	3 U	NA	NA	3 U
Iron	3,960	NA	2,780	NA	2,560	NA	NA	1,730	2,630	NA	3,420 J	NA	3,140 J	NA	2,570 J	NA	2,230	NA	NA	2,010
Lead	60.1 J	NA	17.9 J	NA	18.6 J	NA	NA	29.2 J	21.7 J	NA	31.1	NA	19.3	NA	8.5	NA	8.5	NA	NA	4.3
Magnesium	908	NA	674	NA	159 J	NA	NA	122 J	977	NA	288 J	NA	735	NA	292 J	NA	243 J	NA	NA	465
Manganese	29.5	NA	18.6	NA	12.6	NA	NA	12.1	21.9	NA	23.7	NA	18.4	NA	11.5	NA	7.6	NA	NA	11.5
Mercury	0.38 U	NA	0.34 U	NA	0.41 U	NA	NA	0.44 U	0.4 U	NA	0.025 J	NA	0.021 J	NA	0.12 U	NA	0.05 U	NA	NA	0.05 U
Nickel	2.6 J	NA	1.8 J	NA	4.2 U	NA	NA	4.1 U	3.9 U	NA	3.9 J	NA	2 J	NA	1.9 J	NA	1.5 J	NA	NA	2.2 J
Potassium	256 J	NA	205 J	NA	153 J	NA	NA	114 J	235 J	NA	176 J	NA	219 J	NA	178 J	NA	146 J	NA	NA	232 J
Selenium	3 U	NA	2.8 U	NA	3.7 U	NA	NA	3.6 U	0.65 J	NA	3.7 U	NA	0.32 J	NA	0.31 J	NA	0.31 J	NA	NA	1.3 J
Silver	0.87 U	NA	0.79 U	NA	1 U	NA	NA	1 U	0.98 U	NA	1.1 U	NA	0.83 U	NA	0.98 U	NA	0.86 U	NA	NA	0.84 U
Sodium	75.3 J	NA	66.6 J	NA	24 J	NA	NA	21.3 J	93.2 J	NA	22 J	NA	88.2 J	NA	46.5 J	NA	32.1 J	NA	NA	92.4 J
Thallium	2.2 U	NA	2 U	NA	2.6 U	NA	NA	2.6 U	2.4 U	NA	2.7 U	NA	2.1 U	NA	2.4 U	NA	2.2 U	NA	NA	2.1 U
Vanadium	11.6	NA	9.1	NA	7.1	NA	NA	5.5	10.9	NA	6.8	NA	8.1	NA	8.7	NA	8.4	NA	NA	13.4
Zinc	33.4	NA	21.9	NA	9.3	NA	NA	12.9	65.1	NA	48.5	NA	61.5	NA	25.6	NA	25.2	NA	NA	25.4
Wet Chemistry (MG_KG)																				
Perchlorate	0.0024 U	NA	0.0022 U	NA	0.0028 U	NA	NA	0.0029 U	0.0026 U	NA	0.0032 U	NA	0.0023 U	NA	0.0024 U	NA	0.0027 U	NA	NA	0.0025 U

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Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-I15		MR04-I16		MR04-I17		MR04-I18		MR04-I19		MR04-I20		MR04-I21		MR04-J01			
Sample ID	MR04-I15-0-1-07C	MR04-I15-07C	MR04-I16-0-1-07C	MR04-I16-07C	MR04-I17-07C	MR04-I17-0-1-07C	MR04-I18-0-1-07C	MR04-I18-07C	MR04-I19-0-1-07C	MR04-I19-07C	MR04-I20-0-1-07C	MR04-I20-07C	MR04-I21-07C	MR04-I21-0-1-07C	MR04-J01-0-1-07D	MR04-J01-07D	MR04-J01D-0-1-07D	MR04-J01D-07D
Sample Date	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	10/18/07	10/18/07	10/18/07	10/18/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,570	NA	3,430	NA	NA	3,210	4,800	NA	6,220	NA	6,740	NA	NA	4,290	4,490	NA	4,420	NA
Antimony	5.5 UJ	NA	4.3 UJ	NA	NA	5.7 U	4.3 UJ	NA	5.7 UJ	NA	4.8 UJ	NA	NA	5.7 UJ	5.4 UJ	NA	5 UJ	NA
Arsenic	1.3	NA	2.8	NA	NA	2.2	1.9	NA	2.9	NA	1.9	NA	NA	1.9	1.2	NA	1.2	NA
Barium	9.2 J	NA	10.9 J	NA	NA	14 J	16.2	NA	13.4 J	NA	13.2 J	NA	NA	16.7 J	15.3 J	NA	13 J	NA
Beryllium	0.46 U	NA	0.035 J	NA	NA	0.48 U	0.05 J	NA	0.036 J	NA	0.4 U	NA	NA	0.043 J	0.092 J	NA	0.072 J	NA
Cadmium	0.1 J	NA	0.22 J	NA	NA	0.22 J	0.16 J	NA	0.12 J	NA	0.067 J	NA	NA	0.081 J	0.45 U	NA	0.42 U	NA
Calcium	46,000	NA	42,800	NA	NA	123,000 J	7,060	NA	1,920	NA	2,420 J	NA	NA	10,500	359 J	NA	233 J	NA
Chromium	5	NA	6.4	NA	NA	8.5	6	NA	6.9	NA	8	NA	NA	5.5	4.1	NA	4.1	NA
Cobalt	0.2 J	NA	0.36 J	NA	NA	4.8 U	0.38 J	NA	0.44 J	NA	4 U	NA	NA	0.45 J	0.18 J	NA	0.18 J	NA
Copper	7.2	NA	3.6	NA	NA	2.2 J	3.1	NA	2.5	NA	2.3	NA	NA	1.8 J	0.96 J	NA	0.8 J	NA
Cyanide	3.4 U	NA	2.7 U	NA	NA	0.21 U	2.5 U	NA	3.3 U	NA	2.9 U	NA	NA	3.5 U	3 U	NA	2.8 U	NA
Iron	2,580	NA	2,420	NA	NA	2,570 J	3,340	NA	3,880	NA	4,650 J	NA	NA	3,210	2,570	NA	2,640	NA
Lead	7.7	NA	22.7	NA	NA	7	21.4	NA	13.2	NA	19.4	NA	NA	18.4	8.5	NA	6.7	NA
Magnesium	773	NA	766	NA	NA	822	288 J	NA	201 J	NA	299 J	NA	NA	386 J	118 J	NA	120 J	NA
Manganese	11.2	NA	17.2	NA	NA	22.6	23	NA	13.1	NA	12.5	NA	NA	13.5	11.6	NA	10.1	NA
Mercury	0.053 U	NA	0.047 U	NA	NA	0.13 U	0.044 U	NA	0.071 U	NA	0.021 J	NA	NA	0.053 J	0.029 J	NA	0.03 J	NA
Nickel	1.3 J	NA	1.9 J	NA	NA	1.8 J	1.9 J	NA	1.8 J	NA	1.7 J	NA	NA	1.9 J	3.6 U	NA	3.3 U	NA
Potassium	114 J	NA	171 J	NA	NA	184 J	161 J	NA	166 J	NA	223 J	NA	NA	198 J	103 J	NA	120 J	NA
Selenium	0.84 J	NA	0.86 J	NA	NA	0.54 J	0.22 J	NA	3.3 U	NA	2.8 U	NA	NA	0.31 J	0.24 J	NA	0.27 J	NA
Silver	0.91 U	NA	0.72 U	NA	NA	0.18 J	0.72 U	NA	0.96 U	NA	0.8 U	NA	NA	0.95 U	0.9 U	NA	0.83 U	NA
Sodium	66.3 J	NA	58.7 J	NA	NA	138 J	33.5 J	NA	18.2 J	NA	23.6 J	NA	NA	59.4 J	451 U	NA	416 U	NA
Thallium	2.3 U	NA	1.8 U	NA	NA	2.4 U	1.8 U	NA	2.4 U	NA	2 U	NA	NA	2.4 U	2.3 U	NA	2.1 U	NA
Vanadium	7.1	NA	7.8	NA	NA	7.3	9.9	NA	10.4	NA	11.7	NA	NA	9	6.2	NA	7	NA
Zinc	14.7	NA	101	NA	NA	23.8	36	NA	81.7	NA	15.5	NA	NA	63.4	2.9 J	NA	2.4 J	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0027 U	NA	0.0022 U	NA	NA	0.0027 U	0.0022 U	NA	0.003 U	NA	0.0023 U	NA	NA	0.0029 U	0.0024 U	NA	0.0023 U	NA

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J02				MR04-J03		MR04-J04		MR04-J05		MR04-J06		MR04-J07		MR04-J08				MR04-J09	
Sample ID	MR04-J02-0-1-07D	MR04-J02D-07D	MR04-J02D-0-1-07D	MR04-J02-07D	MR04-J03-0-1-07D	MR04-J03-07D	MR04-J04-0-1-07D	MR04-J04-07D	MR04-J05-0-1-07D	MR04-J05-07D	MR04-J06-0-1-07D	MR04-J06-07D	MR04-J07-0-1-07D	MR04-J07-07D	MR04-J08-0-1-07D	MR04-J08-07D	MR04-J08D-0-1-07D	MR04-J08D-07D	MR04-J09-0-1-07D	MR04-J09-07D
Sample Date	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/18/07	10/17/07	10/17/07
Chemical Name																				
Total Metals (MG_KG)																				
Aluminum	3,900	NA	4,040	NA	4,440	NA	2,910	NA	4,580	NA	4,060	NA	3,630	NA	4,300	NA	3,990	NA	2,170	NA
Antimony	0.27 J	NA	4.9 UJ	NA	0.28 J	NA	0.37 J	NA	5 UJ	NA	4.8 UJ	NA	4.7 UJ	NA	5.8 UJ	NA	6.4 UJ	NA	5.8 UJ	NA
Arsenic	1.4	NA	0.95	NA	1.3	NA	0.91 J	NA	0.98	NA	0.51 J	NA	0.68 J	NA	0.47 J	NA	0.36 J	NA	0.56 J	NA
Barium	14.4 J	NA	15.6 J	NA	13.3 J	NA	11.5 J	NA	17.2	NA	12.6 J	NA	14 J	NA	17.4 J	NA	15.5 J	NA	15.1 J	NA
Beryllium	0.081 J	NA	0.082 J	NA	0.062 J	NA	0.056 J	NA	0.13 J	NA	0.024 J	NA	0.39 U	NA	0.019 J	NA	0.54 U	NA	0.48 U	NA
Cadmium	0.41 U	NA	0.41 U	NA	0.48 U	NA	0.036 J	NA	0.42 U	NA	0.4 U	NA	0.39 U	NA	0.48 U	NA	0.54 U	NA	0.48 U	NA
Calcium	234 J	NA	219 J	NA	179 J	NA	495	NA	8,750	NA	770	NA	391 J	NA	328 J	NA	284 J	NA	141 J	NA
Chromium	2.6	NA	2.5	NA	3.7	NA	3	NA	5.9	NA	3.8	NA	4	NA	4.2	NA	4.2	NA	3.1	NA
Cobalt	0.13 J	NA	0.14 J	NA	0.15 J	NA	0.14 J	NA	0.34 J	NA	0.14 J	NA	0.17 J	NA	0.13 J	NA	0.17 J	NA	0.12 J	NA
Copper	0.76 J	NA	0.84 J	NA	0.68 J	NA	1 J	NA	4	NA	2 U	NA	2 U	NA	2.4 U	NA	2.7 U	NA	2.4 U	NA
Cyanide	2.6 U	NA	2.7 U	NA	2.9 U	NA	2.6 U	NA	2.4 U	NA	2.4 U	NA	2.5 U	NA	3.1 U	NA	3.4 U	NA	3 U	NA
Iron	2,140	NA	1,920	NA	2,530	NA	2,680	NA	3,600	NA	2,870	NA	2,580	NA	2,600	NA	2,730	NA	2,090	NA
Lead	8.8	NA	8.2	NA	9	NA	14.2	NA	50.1 J	NA	8.6 J	NA	10.8 J	NA	7 J	NA	8.1 J	NA	8.5 J	NA
Magnesium	98.5 J	NA	102 J	NA	124 J	NA	100 J	NA	378 J	NA	109 J	NA	116 J	NA	129 J	NA	131 J	NA	74.7 J	NA
Manganese	11.8	NA	12.6	NA	8	NA	5.3	NA	44.1	NA	9.3	NA	11.4	NA	11.2	NA	14.2	NA	10.1	NA
Mercury	0.021 J	NA	0.027 J	NA	0.024 J	NA	0.027 J	NA	0.35 U	NA	0.39 U	NA	0.36 U	NA	0.43 U	NA	0.52 U	NA	0.4 U	NA
Nickel	3.3 U	NA	3.3 U	NA	3.8 U	NA	3.7 U	NA	1.9 J	NA	1.1 J	NA	0.95 J	NA	3.9 U	NA	4.3 U	NA	3.9 U	NA
Potassium	70.6 J	NA	78.2 J	NA	105 J	NA	76.1 J	NA	451	NA	117 J	NA	151 J	NA	170 J	NA	178 J	NA	132 J	NA
Selenium	0.32 J	NA	0.24 J	NA	0.34 J	NA	0.24 J	NA	2.9 U	NA	2.8 U	NA	2.8 U	NA	3.4 U	NA	3.8 U	NA	3.4 U	NA
Silver	0.82 U	NA	0.81 U	NA	0.96 U	NA	0.94 U	NA	0.83 U	NA	0.8 U	NA	0.79 U	NA	0.97 U	NA	1.1 U	NA	0.97 U	NA
Sodium	412 U	NA	407 U	NA	481 U	NA	469 U	NA	42.9 J	NA	16.2 J	NA	14.8 J	NA	15.9 J	NA	16.7 J	NA	17 J	NA
Thallium	2.1 U	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.1 U	NA	2 U	NA	2 U	NA	2.4 U	NA	2.7 U	NA	2.4 U	NA
Vanadium	5.7	NA	5.1	NA	6.6	NA	6.2	NA	7.8	NA	7.1	NA	7.4	NA	7.2	NA	7.5	NA	6	NA
Zinc	2.7 J	NA	2.7 J	NA	3.5 J	NA	4 J	NA	22.1	NA	3.1 J	NA	3.7 J	NA	15.6	NA	15.7	NA	2.3 J	NA
Wet Chemistry (MG_KG)																				
Perchlorate	0.0022 U	NA	0.0022 U	NA	0.0025 U	NA	0.0026 U	NA	0.0022 U	NA	0.0022 U	NA	0.0022 U	NA	0.0026 U	NA	0.0029 U	NA	0.0026 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
L- Reported value biased low
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J10				MR04-J11		MR04-J12		MR04-J13				MR04-J14		MR04-J15		MR04-J16		MR04-J17	
Sample ID	MR04-J10-0-1-07C	MR04-J10-07C	MR04-J10D-0-1-07C	MR04-J10D-07C	MR04-J11-0-1-07C	MR04-J11-07C	MR04-J12-07C	MR04-J12-0-1-07C	MR04-J13-0-1-07C	MR04-J13-07C	MR04-J13D-0-1-07C	MR04-J13D-07C	MR04-J14-0-1-07C	MR04-J14-07C	MR04-J15-0-1-07C	MR04-J15-07C	MR04-J16-0-1-07C	MR04-J16-07C	MR04-J17-07C	MR04-J17-0-1-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	09/06/07	09/06/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name																				
Total Metals (MG_KG)																				
Aluminum	5,630	NA	4,440	NA	3,480	NA	NA	4,600	3,700	NA	3,390	NA	3,650	NA	2,840	NA	4,020	NA	NA	4,460
Antimony	6.4 UJ	NA	6.3 UJ	NA	5.7 UJ	NA	NA	4.8 UJ	5 UJ	NA	4.3 UJ	NA	4.6 UJ	NA	5.9 UJ	NA	6.1 UJ	NA	NA	6.3 UJ
Arsenic	2.4	NA	2	NA	1.7	NA	NA	1.9 L	1.7	NA	1.8	NA	2	NA	2.2 J	NA	1.7 J	NA	NA	2.2 J
Barium	22.4	NA	24	NA	23	NA	NA	18.8	11 J	NA	11.2 J	NA	9.2 J	NA	9.8 J	NA	16 J	NA	NA	14.2 J
Beryllium	0.073 J	NA	0.069 J	NA	0.063 J	NA	NA	0.061 J	0.024 J	NA	0.027 J	NA	0.028 J	NA	0.046 J	NA	0.06 J	NA	NA	0.071 J
Cadmium	0.22 J	NA	0.18 J	NA	0.12 J	NA	NA	0.26 J	0.2 J	NA	0.23 J	NA	0.19 J	NA	0.27 J	NA	0.19 J	NA	NA	0.25 J
Calcium	35,900	NA	13,500	NA	3,120	NA	NA	6,810 J	17,800	NA	42,100	NA	27,400	NA	51,000 J	NA	11,100 J	NA	NA	7,550 J
Chromium	8.5	NA	6	NA	6.1	NA	NA	6.2	6	NA	6.9	NA	6.1	NA	7.1	NA	5.2	NA	NA	6.9
Cobalt	0.38 J	NA	0.34 J	NA	0.34 J	NA	NA	0.33 J	0.28 J	NA	0.25 J	NA	0.47 J	NA	0.32 J	NA	0.23 J	NA	NA	0.51 J
Copper	4.2	NA	3.9	NA	2.2 J	NA	NA	3.1	10.7	NA	8.2	NA	3.3	NA	4	NA	2.9	NA	NA	4.2
Cyanide	3.4 U	NA	2.8 U	NA	3.5 U	NA	NA	2.8 U	3.2 U	NA	2.3 U	NA	2.9 U	NA	0.09 J	NA	3.4 U	NA	NA	3.4 U
Iron	4,650 J	NA	3,680 J	NA	4,390	NA	NA	4,040 J	3,050	NA	2,880	NA	3,010	NA	3,670 J	NA	3,090 J	NA	NA	3,670 J
Lead	27	NA	29	NA	18.3	NA	NA	20.6	18.6	NA	29.9	NA	8.8	NA	32.2	NA	30.7	NA	NA	16.3
Magnesium	848	NA	376 J	NA	195 J	NA	NA	350 J	392 J	NA	739	NA	862	NA	954	NA	343 J	NA	NA	305 J
Manganese	21.5 J	NA	20.1 J	NA	11.3	NA	NA	10.4	12	NA	14.3	NA	11.4	NA	22.9	NA	18.3	NA	NA	18.4
Mercury	0.051 J	NA	0.043 J	NA	0.052 J	NA	NA	0.089 U	0.065 U	NA	0.05 U	NA	0.058 U	NA	0.099 U	NA	0.12 U	NA	NA	0.1 U
Nickel	2.2 J	NA	1.8 J	NA	1.7 J	NA	NA	1.5 J	1.6 J	NA	1.8 J	NA	2 J	NA	2.1 J	NA	1.3 J	NA	NA	1.8 J
Potassium	261 J	NA	178 J	NA	157 J	NA	NA	170 J	138 J	NA	146 J	NA	151 J	NA	227 J	NA	138 J	NA	NA	167 J
Selenium	0.77 J	NA	0.67 J	NA	3.4 U	NA	NA	0.23 J	0.33 J	NA	0.73 J	NA	0.58 J	NA	1 J	NA	0.26 J	NA	NA	3.7 U
Silver	1.1 U	NA	1 U	NA	0.96 U	NA	NA	0.81 U	0.83 U	NA	0.71 U	NA	0.77 U	NA	0.98 U	NA	1 U	NA	NA	1 U
Sodium	77.6 J	NA	39.2 J	NA	14.2 J	NA	NA	27.9 J	26.1 J	NA	54.1 J	NA	56 J	NA	70.3 J	NA	30.3 J	NA	NA	36.6 J
Thallium	2.7 U	NA	2.6 U	NA	2.4 U	NA	NA	2 U	2.1 U	NA	1.8 U	NA	1.9 U	NA	2.5 U	NA	2.5 U	NA	NA	2.6 U
Vanadium	10.7	NA	8.7	NA	8.8	NA	NA	8.5	7.8	NA	7.4	NA	7.8	NA	10.5	NA	7.1	NA	NA	8.8
Zinc	27.4	NA	28.9	NA	29.3	NA	NA	44.9	51.5	NA	50.8	NA	52.7	NA	70.9	NA	43.1	NA	NA	163
Wet Chemistry (MG_KG)																				
Perchlorate	0.0029 U	NA	0.0028 U	NA	0.0028 U	NA	NA	0.0044 U	0.0025 U	NA	0.0022 U	NA	0.0024 U	NA	0.0025 U	NA	0.0027 U	NA	NA	0.0056 U

Notes:
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L- Reported value biased low
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units H21 - J20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-J18		MR04-J19		MR04-J20	
Sample ID	MR04-J18-0-1-07C	MR04-J18-07C	MR04-J19-0-1-07C	MR04-J19-07C	MR04-J20-0-1-07C	MR04-J20-07C
Sample Date	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07	09/05/07
Chemical Name						
Total Metals (MG_KG)						
Aluminum	3,730	NA	4,450	NA	5,900	NA
Antimony	4.7 UJ	NA	5.2 UJ	NA	6.8 UJ	NA
Arsenic	2 J	NA	2 J	NA	1.9 J	NA
Barium	12.9 J	NA	12.1 J	NA	11.1 J	NA
Beryllium	0.13 J	NA	0.042 J	NA	0.049 J	NA
Cadmium	0.42	NA	0.16 J	NA	0.042 J	NA
Calcium	13,700 J	NA	19,100 J	NA	593 J	NA
Chromium	13.5	NA	6.3	NA	7.1	NA
Cobalt	1.1 J	NA	0.28 J	NA	0.29 J	NA
Copper	1.2 J	NA	2.5	NA	1.1 J	NA
Cyanide	2.6 U	NA	0.098 J	NA	3.3 U	NA
Iron	2,950 J	NA	3,680 J	NA	4,230 J	NA
Lead	5.5	NA	23.7	NA	9.2	NA
Magnesium	369 J	NA	511	NA	207 J	NA
Manganese	9.9	NA	12.4	NA	4.5	NA
Mercury	0.084 U	NA	0.089 U	NA	0.13 U	NA
Nickel	1.9 J	NA	1.5 J	NA	1.2 J	NA
Potassium	251 J	NA	199 J	NA	238 J	NA
Selenium	0.54 J	NA	0.47 J	NA	4 U	NA
Silver	0.79 U	NA	0.87 U	NA	1.1 U	NA
Sodium	91 J	NA	49.1 J	NA	29.3 J	NA
Thallium	2 U	NA	2.2 U	NA	2.8 U	NA
Vanadium	11.7	NA	9.2	NA	11	NA
Zinc	34.7	NA	48.6	NA	10.4	NA
Wet Chemistry (MG_KG)						
Perchlorate	0.0021 U	NA	0.0046 U	NA	0.0029 U	NA

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Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F22		MR04-F23		MR04-F24		MR04-F25		MR04-G01		MR04-G02		MR04-G04		MR04-G05		MR04-G06	
Sample ID	MR04-F22-0-1-07C	MR04-F22-07C	MR04-F23-0-1-07C	MR04-F23-07C	MR04-F24-0-1-07C	MR04-F24-07C	MR04-F25-0-1-07C	MR04-F25-07C	MR04-G01-0-1-07C	MR04-G01-07C	MR04-G02-0-1-07C	MR04-G02-07C	MR04-G04-0-1-07C	MR04-G04-07C	MR04-G05-0-1-07C	MR04-G05-07C	MR04-G06-0-1-07C	MR04-G06-07C
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
1,1,2,2-Tetrachloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
1,1,2-Trichloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,1-Dichloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
1,1-Dichloroethene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
1,2,4-Trichlorobenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,2-Dibromo-3-chloropropane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,2-Dibromoethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,2-Dichlorobenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,2-Dichloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,2-Dichloropropane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,3-Dichlorobenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
1,4-Dichlorobenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
2-Butanone	NA	10 J	NA	6 J	NA	15 UJ	NA	17 J	NA	14 U	NA	11 UJ	NA	13 UJ	NA	3 J	NA	11 U
2-Hexanone	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
4-Methyl-2-pentanone	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Acetone	NA	49 J	NA	160 J	NA	85 J	NA	540 J	NA	29 J	NA	28 J	NA	20 J	NA	20 J	NA	44 J
Benzene	NA	3 J	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Bromodichloromethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Bromoform	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 UJ	NA	11 U
Bromomethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Carbon disulfide	NA	4 J	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Carbon tetrachloride	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Chlorobenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Chloroethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 UJ	NA	11 U
Chloroform	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Chloromethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Cyclohexane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Dibromochloromethane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Dichlorodifluoromethane (Freon-12)	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Ethylbenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Isopropylbenzene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Methyl acetate	NA	110 J	NA	710 J	NA	230 J	NA	5,700 J	NA	14 U	NA	6 J	NA	22 J	NA	11 U	NA	11 U
Methyl-tert-butyl ether (MTBE)	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Methylcyclohexane	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Methylene chloride	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Styrene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Tetrachloroethene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Toluene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Trichloroethene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
Trichlorofluoromethane(Freon-11)	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Vinyl chloride	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
Xylene, total	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
cis-1,2-Dichloroethene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
cis-1,3-Dichloropropene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U
trans-1,2-Dichloroethene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 U	NA	13 U	NA	11 U	NA	11 U
trans-1,3-Dichloropropene	NA	15 UJ	NA	12 UJ	NA	15 UJ	NA	15 UJ	NA	14 U	NA	11 UJ	NA	13 U	NA	11 U	NA	11 U

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G07		MR04-G08				MR04-G09		MR04-G10		MR04-G11		MR04-G12		MR04-G13		MR04-G14		
Sample ID	MR04-G07-0-1-07C	MR04-G07-07C	MR04-G08-0-1-07C	MR04-G08D-07C	MR04-G08D-0-1-07C	MR04-G08-07C	MR04-G09-0-1-07C	MR04-G09-07C	MR04-G10-0-1-07C	MR04-G10-07C	MR04-G11-0-1-07C	MR04-G11-07C	MR04-G12-0-1-07C	MR04-G12-07C	MR04-G13-0-1-07C	MR04-G13-07C	MR04-G14-0-1-07C	MR04-G14-07C	MR04-G14D-0-1-07C
Sample Date	09/11/07	09/11/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																			
Volatile Organic Compounds (UG_KG)																			
1,1,1-Trichloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,1,2,2-Tetrachloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,1,2-Trichloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,1-Dichloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,1-Dichloroethene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,2,4-Trichlorobenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,2-Dibromo-3-chloropropane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,2-Dibromoethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,2-Dichlorobenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,2-Dichloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,2-Dichloropropane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
1,3-Dichlorobenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
1,4-Dichlorobenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
2-Butanone	NA	11 U	NA	3.3 J	NA	14 U	NA	47	NA	12 U	NA	35 J	NA	12 U	NA	15 U	NA	17 U	NA
2-Hexanone	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	2.8 J	NA	12 U	NA	15 UJ	NA	17 UJ	NA
4-Methyl-2-pentanone	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Acetone	NA	21 J	NA	20 J	NA	14 U	NA	830 J	NA	12 U	NA	690 J	NA	20 J	NA	100 J	NA	52	NA
Benzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Bromodichloromethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Bromoform	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Bromomethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 UJ	NA	12 UJ	NA	15 U	NA	17 U	NA
Carbon disulfide	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Carbon tetrachloride	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Chlorobenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Chloroethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Chloroform	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Chloromethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Cyclohexane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Dibromochloromethane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Dichlorodifluoromethane (Freon-12)	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Ethylbenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Isopropylbenzene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Methyl acetate	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	6.3 J	NA	12 U	NA	240 J	NA	98	NA
Methyl-tert-butyl ether (MTBE)	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Methylcyclohexane	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Methylene chloride	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Styrene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Tetrachloroethene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
Toluene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	1.1 J	NA	12 U	NA	3 J	NA	17 UJ	NA
Trichloroethene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Trichlorofluoromethane(Freon-11)	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Vinyl chloride	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
Xylene, total	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA
cis-1,2-Dichloroethene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
cis-1,3-Dichloropropene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
trans-1,2-Dichloroethene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 U	NA	17 U	NA
trans-1,3-Dichloropropene	NA	11 U	NA	11 U	NA	14 U	NA	15 U	NA	12 U	NA	13 U	NA	12 U	NA	15 UJ	NA	17 UJ	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID		MR04-G15		MR04-G16		MR04-G17		MR04-G18		MR04-G19				MR04-G20		MR04-G21		MR04-G22	
Sample ID	MR04-G14D-07C	MR04-G15-0-1-07C	MR04-G15-07C	MR04-G16-0-1-07C	MR04-G16-07C	MR04-G17-0-1-07C	MR04-G17-07C	MR04-G18-07C	MR04-G18-0-1-07C	MR04-G19-0-1-07C	MR04-G19-07C	MR04-G19D-0-1-07C	MR04-G19D-07C	MR04-G20-0-1-07C	MR04-G20-07C	MR04-G21-0-1-07C	MR04-G21-07C	MR04-G22-0-1-07C	MR04-G22-07C
Sample Date	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																			
Volatile Organic Compounds (UG_KG)																			
1,1,1-Trichloroethane	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,1,2,2-Tetrachloroethane	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,1,2-Trichloroethane	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,1-Dichloroethane	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,1-Dichloroethene	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2,4-Trichlorobenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2-Dibromo-3-chloropropane	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2-Dibromoethane	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2-Dichlorobenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2-Dichloroethane	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,2-Dichloropropane	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,3-Dichlorobenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
1,4-Dichlorobenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
2-Butanone	8 J	NA	12 U	NA	5 J	NA	7.1 J	14 U	NA	NA	11 J	NA	11 U	NA	7.8 J	NA	7.3 J	NA	8.1 J
2-Hexanone	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
4-Methyl-2-pentanone	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Acetone	36 J	NA	41 J	NA	63 J	NA	97 J	95 J	NA	NA	76 J	NA	61 J	NA	75 J	NA	70 J	NA	93 J
Benzene	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	12 J	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Bromodichloromethane	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Bromoform	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Bromomethane	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Carbon disulfide	14 U	NA	12 U	NA	11 U	NA	1.5 J	1.2 J	NA	NA	1.8 J	NA	3.5 J	NA	2.8 J	NA	0.83 J	NA	14 U
Carbon tetrachloride	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Chlorobenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Chloroethane	14 U	NA	12 U	NA	11 U	NA	14 UJ	14 UJ	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 UJ	NA	14 UJ
Chloroform	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Chloromethane	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Cyclohexane	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Dibromochloromethane	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Dichlorodifluoromethane (Freon-12)	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Ethylbenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Isopropylbenzene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Methyl acetate	30 J	NA	70	NA	260 J	NA	28	17	NA	NA	13 U	NA	4.4 J	NA	11 J	NA	7.6 J	NA	61
Methyl-tert-butyl ether (MTBE)	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Methylcyclohexane	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Methylene chloride	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Styrene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Tetrachloroethene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Toluene	14 UJ	NA	12 UJ	NA	11 UJ	NA	2 J	1.6 J	NA	NA	13 U	NA	1 J	NA	12 U	NA	14 U	NA	14 U
Trichloroethene	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Trichlorofluoromethane(Freon-11)	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Vinyl chloride	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
Xylene, total	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
cis-1,2-Dichloroethene	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
cis-1,3-Dichloropropene	14 UJ	NA	12 U	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
trans-1,2-Dichloroethene	14 U	NA	12 U	NA	11 U	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U
trans-1,3-Dichloropropene	14 UJ	NA	12 UJ	NA	11 UJ	NA	14 U	14 U	NA	NA	13 U	NA	11 U	NA	12 U	NA	14 U	NA	14 U

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G23		MR04-G24		MR04-G25		MR04-H01		MR04-H02				MR04-H04		MR04-H05		MR04-H06	
Sample ID	MR04-G23-0-1-07C	MR04-G23-07C	MR04-G24-0-1-07C	MR04-G24-07C	MR04-G25-0-1-07D	MR04-G25-07D	MR04-H01-0-1-07C	MR04-H01-07C	MR04-H02-0-1-07C	MR04-H02-07C	MR04-H02D-0-1-07C	MR04-H02D-07C	MR04-H04-0-1-07C	MR04-H04-07C	MR04-H05-0-1-07C	MR04-H05-07C	MR04-H06-0-1-07C	MR04-H06-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	10/21/07	10/21/07	09/05/07	09/05/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,1,2,2-Tetrachloroethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,1,2-Trichloroethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,1-Dichloroethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,1-Dichloroethene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2,4-Trichlorobenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2-Dibromo-3-chloropropane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2-Dibromoethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2-Dichlorobenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2-Dichloroethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,2-Dichloropropane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,3-Dichlorobenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
1,4-Dichlorobenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
2-Butanone	NA	22	NA	14 U	NA	48 R	NA	32	NA	9 J	NA	10 J	NA	10 J	NA	25 J	NA	14 J
2-Hexanone	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
4-Methyl-2-pentanone	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Acetone	NA	150 J	NA	18 J	NA	48 R	NA	460 J	NA	220 J	NA	190 J	NA	310 J	NA	550 J	NA	290 J
Benzene	NA	2.9 J	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Bromodichloromethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Bromoform	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Bromomethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Carbon disulfide	NA	13 J	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Carbon tetrachloride	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Chlorobenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Chloroethane	NA	14 U	NA	14 UJ	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Chloroform	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Chloromethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Cyclohexane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Dibromochloromethane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Dichlorodifluoromethane (Freon-12)	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Ethylbenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Isopropylbenzene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Methyl acetate	NA	32	NA	6.1 J	NA	48 R	NA	4.6 J	NA	1,200 J	NA	1,200 J	NA	240 J	NA	520 J	NA	330 J
Methyl-tert-butyl ether (MTBE)	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Methylcyclohexane	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Methylene chloride	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Styrene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Tetrachloroethene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Toluene	NA	2.8 J	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	7 J	NA	4 J
Trichloroethene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Trichlorofluoromethane(Freon-11)	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Vinyl chloride	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
Xylene, total	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
cis-1,2-Dichloroethene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
cis-1,3-Dichloropropene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
trans-1,2-Dichloroethene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ
trans-1,3-Dichloropropene	NA	14 U	NA	14 U	NA	48 R	NA	15 U	NA	12 UJ	NA	13 UJ	NA	19 UJ	NA	15 UJ	NA	16 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H07		MR04-H08		MR04-H09		MR04-H10		MR04-H11		MR04-H12		MR04-H13		MR04-H14		MR04-H15	
Sample ID	MR04-H07-0-1-07C	MR04-H07-07C	MR04-H08-0-1-07C	MR04-H08-07C	MR04-H09-0-1-07C	MR04-H09-07C	MR04-H10-0-1-07C	MR04-H10-07C	MR04-H11-0-1-07C	MR04-H11-07C	MR04-H12-0-1-07C	MR04-H12-07C	MR04-H13-0-1-07C	MR04-H13-07C	MR04-H14-0-1-07C	MR04-H14-07C	MR04-H15-0-1-07C	MR04-H15-07C
Sample Date	09/09/07	09/09/07	09/05/07	09/05/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
1,1,2,2-Tetrachloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
1,1,2-Trichloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,1-Dichloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
1,1-Dichloroethene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
1,2,4-Trichlorobenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,2-Dibromo-3-chloropropane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,2-Dibromoethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,2-Dichlorobenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,2-Dichloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,2-Dichloropropane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,3-Dichlorobenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
1,4-Dichlorobenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
2-Butanone	NA	7 J	NA	10 J	NA	12 UJ	NA	15 U	NA	3.2 J	NA	13 U	NA	10 J	NA	10 J	NA	9 J
2-Hexanone	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
4-Methyl-2-pentanone	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Acetone	NA	100 J	NA	220 J	NA	28 J	NA	21 J	NA	32 J	NA	20 J	NA	28 J	NA	44	NA	75 J
Benzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	5 J	NA	16 UJ	NA	14 UJ
Bromodichloromethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Bromoform	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Bromomethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 UJ	NA	12 UJ	NA	13 UJ	NA	14 U	NA	16 U	NA	14 UJ
Carbon disulfide	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Carbon tetrachloride	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Chlorobenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Chloroethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Chloroform	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Chloromethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Cyclohexane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Dibromochloromethane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Dichlorodifluoromethane (Freon-12)	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Ethylbenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	11 J	NA	16 UJ	NA	14 UJ
Isopropylbenzene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Methyl acetate	NA	120 J	NA	14 U	NA	8 J	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	50	NA	49 J
Methyl-tert-butyl ether (MTBE)	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Methylcyclohexane	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	3 J	NA	16 UJ	NA	14 UJ
Methylene chloride	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Styrene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Tetrachloroethene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Toluene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	7 J	NA	16 UJ	NA	14 UJ
Trichloroethene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
Trichlorofluoromethane(Freon-11)	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Vinyl chloride	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
Xylene, total	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
cis-1,2-Dichloroethene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
cis-1,3-Dichloropropene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ
trans-1,2-Dichloroethene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 U	NA	14 UJ
trans-1,3-Dichloropropene	NA	9 UJ	NA	14 U	NA	12 UJ	NA	15 U	NA	12 U	NA	13 U	NA	14 U	NA	16 UJ	NA	14 UJ

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H16		MR04-H17				MR04-H18		MR04-H19		MR04-H20	
Sample ID	MR04-H16-0-1-07C	MR04-H16-07C	MR04-H17-07C	MR04-H17-0-1-07C	MR04-H17D-0-1-07C	MR04-H17D-07C	MR04-H18-0-1-07C	MR04-H18-07C	MR04-H19-0-1-07C	MR04-H19-07C	MR04-H20-0-1-07C	MR04-H20-07C
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name												
Volatile Organic Compounds (UG_KG)												
1,1,1-Trichloroethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,1,2,2-Tetrachloroethane	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,1,2-Trichloroethane	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,1-Dichloroethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,1-Dichloroethene	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2,4-Trichlorobenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2-Dibromo-3-chloropropane	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2-Dibromoethane	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2-Dichlorobenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2-Dichloroethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,2-Dichloropropane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,3-Dichlorobenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
1,4-Dichlorobenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
2-Butanone	NA	20 J	9 J	NA	NA	7 J	NA	13 U	NA	13 J	NA	12 U
2-Hexanone	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
4-Methyl-2-pentanone	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Acetone	NA	160 J	55 J	NA	NA	67 J	NA	170 J	NA	94 J	NA	140 J
Benzene	NA	2 J	13 U	NA	NA	10 UJ	NA	13 U	NA	1.2 J	NA	12 U
Bromodichloromethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Bromoform	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Bromomethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Carbon disulfide	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	2.1 J	NA	1 J
Carbon tetrachloride	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Chlorobenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Chloroethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 UJ	NA	14 UJ	NA	12 UJ
Chloroform	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Chloromethane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Cyclohexane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Dibromochloromethane	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Dichlorodifluoromethane (Freon-12)	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Ethylbenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Isopropylbenzene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Methyl acetate	NA	250 J	200	NA	NA	180 J	NA	47	NA	4.8 J	NA	36
Methyl-tert-butyl ether (MTBE)	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Methylcyclohexane	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Methylene chloride	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Styrene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Tetrachloroethene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Toluene	NA	3 J	13 UJ	NA	NA	10 UJ	NA	3.3 J	NA	3.4 J	NA	12 U
Trichloroethene	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Trichlorofluoromethane(Freon-11)	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Vinyl chloride	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
Xylene, total	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
cis-1,2-Dichloroethene	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
cis-1,3-Dichloropropene	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
trans-1,2-Dichloroethene	NA	12 U	13 U	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U
trans-1,3-Dichloropropene	NA	12 UJ	13 UJ	NA	NA	10 UJ	NA	13 U	NA	14 U	NA	12 U

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F22		MR04-F23		MR04-F24		MR04-F25		MR04-G01		MR04-G02		MR04-G04		MR04-G05		MR04-G06	
Sample ID	MR04-F22-0-1-07C	MR04-F22-07C	MR04-F23-0-1-07C	MR04-F23-07C	MR04-F24-0-1-07C	MR04-F24-07C	MR04-F25-0-1-07C	MR04-F25-07C	MR04-G01-0-1-07C	MR04-G01-07C	MR04-G02-0-1-07C	MR04-G02-07C	MR04-G04-0-1-07C	MR04-G04-07C	MR04-G05-0-1-07C	MR04-G05-07C	MR04-G06-0-1-07C	MR04-G06-07C
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,2'-Oxybis(1-chloropropane)	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,4,5-Trichlorophenol	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	460 U	NA	950 U	NA	1,100 U	NA	410 U	NA	380 U	NA
2,4,6-Trichlorophenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,4-Dichlorophenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,4-Dimethylphenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,4-Dinitrophenol	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 UJ	NA	950 U	NA	1,100 U	NA	2,100 UJ	NA	1,900 UJ	NA
2,4-Dinitrotoluene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2,6-Dinitrotoluene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2-Chloronaphthalene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2-Chlorophenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2-Methylnaphthalene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2-Methylphenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
2-Nitroaniline	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
2-Nitrophenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
3,3'-Dichlorobenzidine	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
3-Nitroaniline	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
4,6-Dinitro-2-methylphenol	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
4-Bromophenyl-phenylether	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
4-Chloro-3-methylphenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
4-Chloroaniline	380 U	NA	470 U	NA	450 U	NA	500 U	NA	920 U	NA	380 U	NA	450 U	NA	820 U	NA	750 U	NA
4-Chlorophenyl-phenylether	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
4-Methylphenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
4-Nitroaniline	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
4-Nitrophenol	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
Acenaphthene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Acenaphthylene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Acetophenone	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Anthracene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Atrazine	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzaldehyde	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzo(a)anthracene	380 U	NA	470 U	NA	38 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzo(a)pyrene	380 U	NA	470 U	NA	41 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzo(b)fluoranthene	18 J	NA	470 U	NA	50 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzo(g,h,i)perylene	380 U	NA	470 U	NA	42 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Benzo(k)fluoranthene	380 U	NA	470 U	NA	42 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Butylbenzylphthalate	19 J	NA	24 J	NA	42 J	NA	500 U	NA	460 U	NA	18 J	NA	450 U	NA	410 U	NA	380 U	NA
Caprolactam	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Carbazole	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Chrysene	18 J	NA	21 J	NA	56 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Di-n-butylphthalate	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Di-n-octylphthalate	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Dibenz(a,h)anthracene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Dibenzofuran	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Diethylphthalate	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Dimethyl phthalate	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Fluoranthene	21 J	NA	30 J	NA	120 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Fluorene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Hexachlorobenzene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Hexachlorobutadiene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Hexachlorocyclopentadiene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Hexachloroethane	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Indeno(1,2,3-cd)pyrene	380 U	NA	470 U	NA	34 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Isophorone	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Naphthalene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Nitrobenzene	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Pentachlorophenol	940 U	NA	1,200 U	NA	1,100 U	NA	1,300 U	NA	2,400 U	NA	950 U	NA	1,100 U	NA	2,100 U	NA	1,900 U	NA
Phenanthrene	380 U	NA	470 U	NA	46 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Phenol	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
Pyrene	19 J	NA	27 J	NA	86 J	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
bis(2-Chloroethoxy)methane	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
bis(2-Chloroethyl)ether	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
bis(2-Ethylhexyl)phthalate	210 J	NA	170 J	NA	300 J	NA	66 J	NA	73 J	NA	88 J	NA	77 J	NA	410 U	NA	380 U	NA
n-Nitroso-di-n-propylamine	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA
n-Nitrosodiphenylamine	380 U	NA	470 U	NA	450 U	NA	500 U	NA	460 U	NA	380 U	NA	450 U	NA	410 U	NA	380 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G07		MR04-G08				MR04-G09		MR04-G10		MR04-G11		MR04-G12		MR04-G13		MR04-G14		
Sample ID	MR04-G07-0-1-07C	MR04-G07-07C	MR04-G08-0-1-07C	MR04-G08D-07C	MR04-G08D-0-1-07C	MR04-G08-07C	MR04-G09-0-1-07C	MR04-G09-07C	MR04-G10-0-1-07C	MR04-G10-07C	MR04-G11-0-1-07C	MR04-G11-07C	MR04-G12-0-1-07C	MR04-G12-07C	MR04-G13-0-1-07C	MR04-G13-07C	MR04-G14-0-1-07C	MR04-G14-07C	MR04-G14D-0-1-07C
Sample Date	09/11/07	09/11/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																			
Semi-volatile Organic Compounds (UG_KG)																			
1,1-Biphenyl	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,2'-Oxybis(1-chloropropane)	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,4,5-Trichlorophenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	1,100 U	NA	1,100 U	NA	940 U
2,4,6-Trichlorophenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,4-Dichlorophenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,4-Dimethylphenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,4-Dinitrophenol	2,000 UJ	NA	2,400 UJ	NA	1,900 U	NA	2,000 UJ	NA	2,000 UJ	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 UJ	NA	940 UJ
2,4-Dinitrotoluene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2,6-Dinitrotoluene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2-Chloronaphthalene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2-Chlorophenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2-Methylnaphthalene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2-Methylphenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
2-Nitroaniline	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
2-Nitrophenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
3,3'-Dichlorobenzidine	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
3-Nitroaniline	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
4,6-Dinitro-2-methylphenol	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
4-Bromophenyl-phenylether	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
4-Chloro-3-methylphenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
4-Chloroaniline	770 U	NA	950 U	NA	750 U	NA	780 U	NA	770 U	NA	710 U	NA	840 U	NA	440 U	NA	440 U	NA	380 U
4-Chlorophenyl-phenylether	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
4-Methylphenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
4-Nitroaniline	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
4-Nitrophenol	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
Acenaphthene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Acenaphthylene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Acetophenone	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Anthracene	390 U	NA	64 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Atrazine	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Benzaldehyde	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Benzo(a)anthracene	390 U	NA	350 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	53 J	NA	65 J
Benzo(a)pyrene	390 U	NA	360 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	58 J	NA	76 J
Benzo(b)fluoranthene	390 U	NA	450 J	NA	24 J	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	79 J	NA	100 J
Benzo(g,h,i)perylene	390 U	NA	210 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	60 J	NA	87 J
Benzo(k)fluoranthene	390 U	NA	220 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	65 J	NA	75 J
Butylbenzylphthalate	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Caprolactam	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Carbazole	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Chrysene	390 U	NA	360 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	86 J	NA	110 J
Di-n-butylphthalate	390 U	NA	470 U	NA	32 J	NA	390 U	NA	380 U	NA	360 U	NA	28 J	NA	440 U	NA	440 U	NA	380 U
Di-n-octylphthalate	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Dibenz(a,h)anthracene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Dibenzofuran	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Diethylphthalate	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Dimethyl phthalate	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Fluoranthene	390 U	NA	600	NA	25 J	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	180 J	NA	190 J
Fluorene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Hexachlorobenzene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Hexachlorobutadiene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Hexachlorocyclopentadiene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Hexachloroethane	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Indeno(1,2,3-cd)pyrene	390 U	NA	200 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	52 J	NA	72 J
Isophorone	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Naphthalene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Nitrobenzene	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Pentachlorophenol	2,000 U	NA	2,400 U	NA	1,900 U	NA	2,000 U	NA	2,000 U	NA	1,800 U	NA	2,200 U	NA	1,100 U	NA	1,100 U	NA	940 U
Phenanthrene	390 U	NA	200 J	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	55 J	NA	52 J
Phenol	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
Pyrene	390 U	NA	490	NA	20 J	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	120 J	NA	140 J
bis(2-Chloroethoxy)methane	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
bis(2-Chloroethyl)ether	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
bis(2-Ethylhexyl)phthalate	390 U	NA	59 J	NA	42 J	NA	56 J	NA	59 J	NA	360 U	NA	420 U	NA	40 J	NA	48 J	NA	53 J
n-Nitroso-di-n-propylamine	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U
n-Nitrosodiphenylamine	390 U	NA	470 U	NA	370 U	NA	390 U	NA	380 U	NA	360 U	NA	420 U	NA	440 U	NA	440 U	NA	380 U

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID		MR04-G15		MR04-G16		MR04-G17		MR04-G18		MR04-G19				MR04-G20		MR04-G21		MR04-G22	
Sample ID	MR04-G14D-07C	MR04-G15-0-1-07C	MR04-G15-07C	MR04-G16-0-1-07C	MR04-G16-07C	MR04-G17-0-1-07C	MR04-G17-07C	MR04-G18-07C	MR04-G18-0-1-07C	MR04-G19-0-1-07C	MR04-G19-07C	MR04-G19D-0-1-07C	MR04-G19D-07C	MR04-G20-0-1-07C	MR04-G20-07C	MR04-G21-0-1-07C	MR04-G21-07C	MR04-G22-0-1-07C	MR04-G22-07C
Sample Date	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																			
Semi-volatile Organic Compounds (UG_KG)																			
1,1-Biphenyl	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,2'-Oxybis(1-chloropropane)	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,4,5-Trichlorophenol	NA	920 U	NA	910 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,4,6-Trichlorophenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,4-Dichlorophenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,4-Dimethylphenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,4-Dinitrophenol	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 UJ	NA	2,200 UJ	NA	2,300 UJ	NA	2,300 UJ	NA
2,4-Dinitrotoluene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2,6-Dinitrotoluene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2-Chloronaphthalene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2-Chlorophenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2-Methylnaphthalene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2-Methylphenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
2-Nitroaniline	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
2-Nitrophenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
3,3'-Dichlorobenzidine	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
3-Nitroaniline	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
4,6-Dinitro-2-methylphenol	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
4-Bromophenyl-phenylether	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
4-Chloro-3-methylphenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
4-Chloroaniline	NA	370 U	NA	360 U	NA	910 U	NA	NA	850 U	900 U	NA	810 U	NA	870 U	NA	910 U	NA	890 U	NA
4-Chlorophenyl-phenylether	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
4-Methylphenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
4-Nitroaniline	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
4-Nitrophenol	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
Acenaphthene	NA	370 U	NA	27 J	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Acenaphthylene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Acetophenone	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Anthracene	NA	21 J	NA	160 J	NA	460 U	NA	NA	430 U	36 J	NA	24 J	NA	430 U	NA	450 U	NA	450 U	NA
Atrazine	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Benzaldehyde	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Benzo(a)anthracene	NA	240 J	NA	710	NA	460 U	NA	NA	230 J	230 J	NA	150 J	NA	43 J	NA	450 U	NA	450 U	NA
Benzo(a)pyrene	NA	290 J	NA	570	NA	460 U	NA	NA	310 J	240 J	NA	180 J	NA	63 J	NA	450 U	NA	450 U	NA
Benzo(b)fluoranthene	NA	470	NA	610	NA	25 J	NA	NA	420 J	280 J	NA	270 J	NA	91 J	NA	30 J	NA	23 J	NA
Benzo(g,h,i)perylene	NA	180 J	NA	260 J	NA	460 U	NA	NA	270 J	160 J	NA	150 J	NA	55 J	NA	450 U	NA	450 U	NA
Benzo(k)fluoranthene	NA	300 J	NA	720	NA	460 U	NA	NA	260 J	180 J	NA	120 J	NA	42 J	NA	450 U	NA	450 U	NA
Butylbenzylphthalate	NA	370 U	NA	20 J	NA	310 J	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Caprolactam	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Carbazole	NA	23 J	NA	140 J	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Chrysene	NA	390	NA	790	NA	25 J	NA	NA	360 J	290 J	NA	210 J	NA	75 J	NA	450 U	NA	450 U	NA
Di-n-butylphthalate	NA	370 U	NA	29 J	NA	460 U	NA	NA	28 J	450 U	NA	410 U	NA	23 J	NA	450 U	NA	450 U	NA
Di-n-octylphthalate	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Dibenz(a,h)anthracene	NA	47 J	NA	73 J	NA	460 U	NA	NA	430 U	36 J	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Dibenzofuran	NA	370 U	NA	17 J	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Diethylphthalate	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Dimethyl phthalate	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Fluoranthene	NA	670	NA	2,000	NA	32 J	NA	NA	530	540	NA	380 J	NA	120 J	NA	42 J	NA	27 J	NA
Fluorene	NA	370 U	NA	40 J	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Hexachlorobenzene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Hexachlorobutadiene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Hexachlorocyclopentadiene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Hexachloroethane	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	NA	150 J	NA	230 J	NA	460 U	NA	NA	250 J	150 J	NA	130 J	NA	50 J	NA	450 U	NA	450 U	NA
Isophorone	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Naphthalene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Nitrobenzene	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Pentachlorophenol	NA	920 U	NA	910 U	NA	2,300 U	NA	NA	2,200 U	2,300 U	NA	2,100 U	NA	2,200 U	NA	2,300 U	NA	2,300 U	NA
Phenanthrene	NA	150 J	NA	820	NA	460 U	NA	NA	120 J	150 J	NA	110 J	NA	31 J	NA	450 U	NA	450 U	NA
Phenol	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
Pyrene	NA	490	NA	1,200	NA	30 J	NA	NA	410 J	410 J	NA	290 J	NA	87 J	NA	30 J	NA	450 U	NA
bis(2-Chloroethoxy)methane	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
bis(2-Chloroethyl)ether	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	NA	320 J	NA	93 J	NA	110 J	NA	NA	54 J	68 J	NA	130 J	NA	170 J	NA	450 U	NA	450 U	NA
n-Nitroso-di-n-propylamine	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA
n-Nitrosodiphenylamine	NA	370 U	NA	360 U	NA	460 U	NA	NA	430 U	450 U	NA	410 U	NA	430 U	NA	450 U	NA	450 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G23		MR04-G24		MR04-G25		MR04-H01		MR04-H02				MR04-H04		MR04-H05		MR04-H06	
Sample ID	MR04-G23-0-1-07C	MR04-G23-07C	MR04-G24-0-1-07C	MR04-G24-07C	MR04-G25-0-1-07D	MR04-G25-07D	MR04-H01-0-1-07C	MR04-H01-07C	MR04-H02-0-1-07C	MR04-H02-07C	MR04-H02D-0-1-07C	MR04-H02D-07C	MR04-H04-0-1-07C	MR04-H04-07C	MR04-H05-0-1-07C	MR04-H05-07C	MR04-H06-0-1-07C	MR04-H06-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	10/21/07	10/21/07	09/05/07	09/05/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,2'-Oxybis(1-chloropropane)	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,4,5-Trichlorophenol	470 U	NA	470 U	NA	880 U	NA	420 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,4-Dichlorophenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,4-Dimethylphenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,4-Dinitrophenol	2,400 UJ	NA	2,400 UJ	NA	880 U	NA	2,100 UJ	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
2,4-Dinitrotoluene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2,6-Dinitrotoluene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2-Chloronaphthalene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2-Chlorophenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2-Methylnaphthalene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2-Methylphenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
2-Nitroaniline	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
2-Nitrophenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
3,3'-Dichlorobenzidine	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
3-Nitroaniline	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
4-Chloro-3-methylphenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
4-Chloroaniline	930 U	NA	930 U	NA	350 U	NA	830 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
4-Chlorophenyl-phenylether	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
4-Methylphenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
4-Nitroaniline	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
4-Nitrophenol	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
Acenaphthene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Acenaphthylene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Acetophenone	470 U	NA	470 U	NA	27 J	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Anthracene	44 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Atrazine	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzaldehyde	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzo(a)anthracene	450 J	NA	470 U	NA	19 J	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzo(a)pyrene	540	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzo(b)fluoranthene	700	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzo(g,h,i)perylene	460 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Benzo(k)fluoranthene	340 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Butylbenzylphthalate	470 U	NA	470 U	NA	45 J	NA	420 U	NA	440 U	NA	34 J	NA	24 J	NA	25 J	NA	32 J	NA
Caprolactam	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Carbazole	42 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Chrysene	600	NA	470 U	NA	36 J	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Di-n-butylphthalate	470 U	NA	470 U	NA	350 U	NA	29 J	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Di-n-octylphthalate	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Dibenz(a,h)anthracene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Dibenzofuran	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Diethylphthalate	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Dimethyl phthalate	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Fluoranthene	950	NA	470 U	NA	47 J	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Fluorene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Hexachlorobenzene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Hexachlorobutadiene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Hexachlorocyclopentadiene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Hexachloroethane	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Indeno(1,2,3-cd)pyrene	410 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Isophorone	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Naphthalene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Nitrobenzene	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Pentachlorophenol	2,400 U	NA	2,400 U	NA	880 U	NA	2,100 U	NA	1,100 U	NA	940 U	NA	1,000 U	NA	1,300 U	NA	1,100 U	NA
Phenanthrene	290 J	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Phenol	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
Pyrene	780	NA	470 U	NA	50 J	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
bis(2-Chloroethoxy)methane	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
bis(2-Chloroethyl)ether	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
bis(2-Ethylhexyl)phthalate	210 J	NA	470 U	NA	350 U	NA	420 U	NA	48 J	NA	270 J	NA	200 J	NA	55 J	NA	110 J	NA
n-Nitroso-di-n-propylamine	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA
n-Nitrosodiphenylamine	470 U	NA	470 U	NA	350 U	NA	420 U	NA	440 U	NA	380 U	NA	410 U	NA	510 U	NA	440 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H07		MR04-H08		MR04-H09		MR04-H10		MR04-H11		MR04-H12		MR04-H13		MR04-H14		MR04-H15	
Sample ID	MR04-H07-0-1-07C	MR04-H07-07C	MR04-H08-0-1-07C	MR04-H08-07C	MR04-H09-0-1-07C	MR04-H09-07C	MR04-H10-0-1-07C	MR04-H10-07C	MR04-H11-0-1-07C	MR04-H11-07C	MR04-H12-0-1-07C	MR04-H12-07C	MR04-H13-0-1-07C	MR04-H13-07C	MR04-H14-0-1-07C	MR04-H14-07C	MR04-H15-0-1-07C	MR04-H15-07C
Sample Date	09/09/07	09/09/07	09/05/07	09/05/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,4,5-Trichlorophenol	920 U	NA	450 U	NA	990 U	NA	410 U	NA	360 U	NA	440 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
2,4,6-Trichlorophenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,4-Dichlorophenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,4-Dimethylphenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,4-Dinitrophenol	920 U	NA	2,300 U	NA	990 UJ	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 UJ	NA	930 UJ	NA
2,4-Dinitrotoluene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2,6-Dinitrotoluene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2-Chloronaphthalene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2-Chlorophenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2-Methylnaphthalene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2-Methylphenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
2-Nitroaniline	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
2-Nitrophenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
3,3'-Dichlorobenzidine	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
3-Nitroaniline	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
4,6-Dinitro-2-methylphenol	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
4-Bromophenyl-phenylether	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
4-Chloro-3-methylphenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
4-Chloroaniline	370 U	NA	900 U	NA	390 U	NA	820 U	NA	720 U	NA	880 U	NA	430 U	NA	430 U	NA	370 U	NA
4-Chlorophenyl-phenylether	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
4-Methylphenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
4-Nitroaniline	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
4-Nitrophenol	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
Acenaphthene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Acenaphthylene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Acetophenone	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Anthracene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Atrazine	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Benzaldehyde	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Benzo(a)anthracene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	69 J	NA	84 J	NA	56 J	NA	100 J	NA
Benzo(a)pyrene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	78 J	NA	61 J	NA	59 J	NA	100 J	NA
Benzo(b)fluoranthene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	110 J	NA	110 J	NA	94 J	NA	160 J	NA
Benzo(g,h,i)perylene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	58 J	NA	55 J	NA	75 J	NA	87 J	NA
Benzo(k)fluoranthene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	57 J	NA	120 J	NA	69 J	NA	96 J	NA
Butylbenzylphthalate	22 J	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Caprolactam	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Carbazole	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Chrysene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	93 J	NA	120 J	NA	86 J	NA	140 J	NA
Di-n-butylphthalate	370 U	NA	80 J	NA	390 U	NA	49 J	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Di-n-octylphthalate	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Dibenz(a,h)anthracene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Dibenzofuran	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Diethylphthalate	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Dimethyl phthalate	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Fluoranthene	22 J	NA	29 J	NA	390 U	NA	410 U	NA	360 U	NA	160 J	NA	240 J	NA	170 J	NA	310 J	NA
Fluorene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Hexachlorobenzene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Hexachlorobutadiene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Hexachlorocyclopentadiene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Hexachloroethane	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	51 J	NA	51 J	NA	61 J	NA	75 J	NA
Isophorone	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Naphthalene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Nitrobenzene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Pentachlorophenol	920 U	NA	2,300 U	NA	990 U	NA	2,100 U	NA	1,900 U	NA	2,300 U	NA	1,100 U	NA	1,100 U	NA	930 U	NA
Phenanthrene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	53 J	NA	97 J	NA	42 J	NA	110 J	NA
Phenol	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
Pyrene	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	140 J	NA	200 J	NA	110 J	NA	190 J	NA
bis(2-Chloroethoxy)methane	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
bis(2-Chloroethyl)ether	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
bis(2-Ethylhexyl)phthalate	45 J	NA	62 J	NA	42 J	NA	410 U	NA	360 U	NA	47 J	NA	46 J	NA	43 J	NA	52 J	NA
n-Nitroso-di-n-propylamine	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA
n-Nitrosodiphenylamine	370 U	NA	450 U	NA	390 U	NA	410 U	NA	360 U	NA	440 U	NA	430 U	NA	430 U	NA	370 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H16		MR04-H17				MR04-H18		MR04-H19		MR04-H20	
Sample ID	MR04-H16-0-1-07C	MR04-H16-07C	MR04-H17-07C	MR04-H17-0-1-07C	MR04-H17D-0-1-07C	MR04-H17D-07C	MR04-H18-0-1-07C	MR04-H18-07C	MR04-H19-0-1-07C	MR04-H19-07C	MR04-H20-0-1-07C	MR04-H20-07C
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name												
Semi-volatile Organic Compounds (UG_KG)												
1,1-Biphenyl	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2,2'-Oxybis(1-chloropropane)	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2,4,5-Trichlorophenol	1,100 U	NA	NA	1,100 U	910 U	NA	410 U	NA	490 U	NA	390 U	NA
2,4,6-Trichlorophenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2,4-Dichlorophenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2,4-Dimethylphenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2,4-Dinitrophenol	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 UJ	NA	2,000 U	NA
2,4-Dinitrotoluene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
2,6-Dinitrotoluene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2-Chloronaphthalene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2-Chlorophenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
2-Methylnaphthalene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2-Methylphenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
2-Nitroaniline	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 U	NA	2,000 U	NA
2-Nitrophenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
3,3'-Dichlorobenzidine	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
3-Nitroaniline	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 U	NA	2,000 U	NA
4,6-Dinitro-2-methylphenol	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 U	NA	2,000 U	NA
4-Bromophenyl-phenylether	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
4-Chloro-3-methylphenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
4-Chloroaniline	420 U	NA	NA	430 U	360 U	NA	820 U	NA	970 U	NA	780 U	NA
4-Chlorophenyl-phenylether	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
4-Methylphenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
4-Nitroaniline	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 U	NA	2,000 U	NA
4-Nitrophenol	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 UJ	NA	2,000 U	NA
Acenaphthene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
Acenaphthylene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Acetophenone	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Anthracene	420 U	NA	NA	28 J	22 J	NA	410 U	NA	490 U	NA	390 U	NA
Atrazine	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Benzaldehyde	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Benzo(a)anthracene	70 J	NA	NA	370 J	300 J	NA	410 U	NA	490 U	NA	390 U	NA
Benzo(a)pyrene	83 J	NA	NA	490	390	NA	410 U	NA	490 U	NA	31 J	NA
Benzo(b)fluoranthene	100 J	NA	NA	570	530	NA	410 U	NA	490 U	NA	50 J	NA
Benzo(g,h,i)perylene	69 J	NA	NA	400 J	380	NA	410 U	NA	490 U	NA	390 U	NA
Benzo(k)fluoranthene	87 J	NA	NA	600	500	NA	410 U	NA	490 U	NA	22 J	NA
Butylbenzylphthalate	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Caprolactam	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Carbazole	420 U	NA	NA	34 J	38 J	NA	410 U	NA	490 U	NA	390 U	NA
Chrysene	110 J	NA	NA	590	510	NA	410 U	NA	490 U	NA	46 J	NA
Di-n-butylphthalate	39 J	NA	NA	36 J	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Di-n-octylphthalate	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Dibenz(a,h)anthracene	420 U	NA	NA	100 J	96 J	NA	410 U	NA	490 U	NA	390 U	NA
Dibenzofuran	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Diethylphthalate	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Dimethyl phthalate	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Fluoranthene	230 J	NA	NA	1,000	900	NA	24 J	NA	490 U	NA	76 J	NA
Fluorene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Hexachlorobenzene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Hexachlorobutadiene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Hexachlorocyclopentadiene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Hexachloroethane	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Indeno(1,2,3-cd)pyrene	54 J	NA	NA	330 J	290 J	NA	410 U	NA	490 U	NA	390 U	NA
Isophorone	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Naphthalene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Nitrobenzene	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
Pentachlorophenol	1,100 U	NA	NA	1,100 U	910 U	NA	2,100 U	NA	2,500 UJ	NA	2,000 U	NA
Phenanthrene	83 J	NA	NA	230 J	220 J	NA	410 U	NA	490 U	NA	28 J	NA
Phenol	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
Pyrene	130 J	NA	NA	640	550	NA	410 U	NA	490 UJ	NA	54 J	NA
bis(2-Chloroethoxy)methane	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
bis(2-Chloroethyl)ether	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA
bis(2-Ethylhexyl)phthalate	84 J	NA	NA	150 J	77 J	NA	410	NA	490 U	NA	390 U	NA
n-Nitroso-di-n-propylamine	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 UJ	NA	390 U	NA
n-Nitrosodiphenylamine	420 U	NA	NA	430 U	360 U	NA	410 U	NA	490 U	NA	390 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F22		MR04-F23		MR04-F24		MR04-F25		MR04-G01		MR04-G02		MR04-G04		MR04-G05		MR04-G06	
Sample ID	MR04-F22-0-1-07C	MR04-F22-07C	MR04-F23-0-1-07C	MR04-F23-07C	MR04-F24-0-1-07C	MR04-F24-07C	MR04-F25-0-1-07C	MR04-F25-07C	MR04-G01-0-1-07C	MR04-G01-07C	MR04-G02-0-1-07C	MR04-G02-07C	MR04-G04-0-1-07C	MR04-G04-07C	MR04-G05-0-1-07C	MR04-G05-07C	MR04-G06-0-1-07C	MR04-G06-07C
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.8 U	NA	3 J	NA	6.1	NA	5 U	NA	1.3 J	NA	2.6 J	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
4,4'-DDE	11 J	NA	43	NA	33	NA	5 U	NA	51	NA	99	NA	7	NA	3.2 J	NA	3 J	NA
4,4'-DDT	4.5	NA	33	NA	120	NA	12	NA	26	NA	47	NA	9.2	NA	2.8 J	NA	1.9 J	NA
Aldrin	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	0.25 J	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
Aroclor-1016	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Aroclor-1221	76 U	NA	94 U	NA	92 U	NA	100 U	NA	94 U	NA	77 U	NA	91 U	NA	83 U	NA	77 UJ	NA
Aroclor-1232	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Aroclor-1242	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Aroclor-1248	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Aroclor-1254	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Aroclor-1260	38 U	NA	47 U	NA	45 U	NA	50 U	NA	46 U	NA	38 U	NA	45 U	NA	41 U	NA	38 UJ	NA
Dieldrin	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	26	NA	2.5 J	NA	4.5 U	NA	0.39 J	NA	0.65 J	NA
Endosulfan I	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
Endosulfan II	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
Endosulfan sulfate	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
Endrin	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
Endrin aldehyde	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
Endrin ketone	3.8 U	NA	4.7 U	NA	4.5 U	NA	5 U	NA	4.6 U	NA	3.8 U	NA	4.5 U	NA	4.1 U	NA	3.8 UJ	NA
Heptachlor	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
Heptachlor epoxide	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
Methoxychlor	19 U	NA	24 U	NA	23 U	NA	26 U	NA	24 U	NA	20 U	NA	23 U	NA	21 U	NA	20 UJ	NA
Toxaphene	190 U	NA	240 U	NA	230 U	NA	260 U	NA	240 U	NA	200 U	NA	230 U	NA	210 U	NA	200 UJ	NA
alpha-BHC	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
alpha-Chlordane	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
beta-BHC	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
delta-BHC	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
gamma-BHC (Lindane)	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
gamma-Chlordane	1.9 U	NA	2.4 U	NA	2.3 U	NA	2.6 U	NA	2.4 U	NA	2 U	NA	2.3 U	NA	2.1 U	NA	2 UJ	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G07		MR04-G08				MR04-G09		MR04-G10		MR04-G11		MR04-G12		MR04-G13		MR04-G14		
Sample ID	MR04-G07-0-1-07C	MR04-G07-07C	MR04-G08-0-1-07C	MR04-G08D-07C	MR04-G08D-0-1-07C	MR04-G08-07C	MR04-G09-0-1-07C	MR04-G09-07C	MR04-G10-0-1-07C	MR04-G10-07C	MR04-G11-0-1-07C	MR04-G11-07C	MR04-G12-0-1-07C	MR04-G12-07C	MR04-G13-0-1-07C	MR04-G13-07C	MR04-G14-0-1-07C	MR04-G14-07C	MR04-G14D-0-1-07C
Sample Date	09/11/07	09/11/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																			
Pesticide/Polychlorinated Biphenyls (UG_KG)																			
4,4'-DDD	3.9 U	NA	1.7 J	NA	1.7 J	NA	3.9 U	NA	3.8 U	NA	10	NA	0.6 J	NA	4.4 U	NA	4.4 U	NA	3.8 U
4,4'-DDE	3.7 J	NA	28	NA	7.3 J	NA	6.8	NA	0.71 J	NA	57	NA	5.2	NA	15	NA	6.8	NA	11 J
4,4'-DDT	6.5	NA	18	NA	3.6 J	NA	7.8 J	NA	3.8 U	NA	58	NA	3.1 J	NA	8.2	NA	7.8	NA	11
Aldrin	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 UJ	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
Aroclor-1016	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	38 U
Aroclor-1221	79 U	NA	95 U	NA	76 UJ	NA	80 U	NA	78 U	NA	73 U	NA	85 U	NA	89 U	NA	89 U	NA	76 U
Aroclor-1232	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	38 U
Aroclor-1242	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	38 U
Aroclor-1248	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	38 U
Aroclor-1254	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	38 U
Aroclor-1260	39 U	NA	47 U	NA	38 UJ	NA	39 U	NA	38 U	NA	36 U	NA	42 U	NA	44 U	NA	44 U	NA	20 J
Dieldrin	2.2 J	NA	4.7 U	NA	3.8 UJ	NA	0.51 J	NA	3.8 U	NA	1.3 J	NA	0.44 J	NA	4.4 U	NA	4.4 U	NA	3.8 U
Endosulfan I	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
Endosulfan II	3.9 U	NA	4.7 U	NA	3.8 UJ	NA	3.9 U	NA	3.8 U	NA	3.6 U	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.8 U
Endosulfan sulfate	3.9 U	NA	4.7 U	NA	3.8 UJ	NA	3.9 U	NA	3.8 U	NA	3.6 U	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.8 U
Endrin	0.7 J	NA	4.7 U	NA	3.8 UJ	NA	3.9 U	NA	3.8 U	NA	9.3	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.8 U
Endrin aldehyde	3.9 U	NA	4.7 U	NA	3.8 UJ	NA	3.9 U	NA	3.8 U	NA	3.6 U	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.8 U
Endrin ketone	3.9 U	NA	4.7 U	NA	3.8 UJ	NA	3.9 U	NA	3.8 U	NA	3.6 U	NA	4.2 U	NA	4.4 U	NA	4.4 U	NA	3.8 U
Heptachlor	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 UJ	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
Heptachlor epoxide	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
Methoxychlor	20 U	NA	24 U	NA	19 UJ	NA	20 U	NA	20 U	NA	18 U	NA	22 U	NA	23 U	NA	23 U	NA	19 U
Toxaphene	200 U	NA	240 U	NA	190 UJ	NA	200 U	NA	200 U	NA	180 U	NA	220 U	NA	230 U	NA	230 U	NA	190 U
alpha-BHC	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
alpha-Chlordane	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
beta-BHC	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
delta-BHC	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
gamma-BHC (Lindane)	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 UJ	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
gamma-Chlordane	2 U	NA	2.4 U	NA	1.9 UJ	NA	2 U	NA	2 U	NA	1.8 U	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA	1.9 U
Explosives (UG_KG)																			
1,3,5-Trinitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID		MR04-G15		MR04-G16		MR04-G17		MR04-G18		MR04-G19				MR04-G20		MR04-G21		MR04-G22	
Sample ID	MR04-G14D-07C	MR04-G15-0-1-07C	MR04-G15-07C	MR04-G16-0-1-07C	MR04-G16-07C	MR04-G17-0-1-07C	MR04-G17-07C	MR04-G18-07C	MR04-G18-0-1-07C	MR04-G19-0-1-07C	MR04-G19-07C	MR04-G19D-0-1-07C	MR04-G19D-07C	MR04-G20-0-1-07C	MR04-G20-07C	MR04-G21-0-1-07C	MR04-G21-07C	MR04-G22-0-1-07C	MR04-G22-07C
Sample Date	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																			
Pesticide/Polychlorinated Biphenyls (UG_KG)																			
4,4'-DDD	NA	8.8	NA	3.6 U	NA	0.56 J	NA	NA	4.3 U	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
4,4'-DDE	NA	240	NA	20 J	NA	12	NA	NA	2.1 J	1.6 J	NA	3.2 J	NA	1.2 J	NA	5	NA	0.76 J	NA
4,4'-DDT	NA	89	NA	48	NA	9.3	NA	NA	1.5 J	1.8 J	NA	4.4 J	NA	1.1 J	NA	3.6 J	NA	0.98 J	NA
Aldrin	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
Aroclor-1016	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Aroclor-1221	NA	74 U	NA	74 U	NA	92 U	NA	NA	87 U	92 U	NA	82 UJ	NA	88 U	NA	92 U	NA	91 U	NA
Aroclor-1232	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Aroclor-1242	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Aroclor-1248	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Aroclor-1254	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Aroclor-1260	NA	37 U	NA	36 U	NA	46 U	NA	NA	43 U	45 U	NA	40 UJ	NA	43 U	NA	45 U	NA	45 U	NA
Dieldrin	NA	4.1	NA	3.6 U	NA	4.2 J	NA	NA	0.73 J	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
Endosulfan I	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
Endosulfan II	NA	3.7 U	NA	3.6 U	NA	4.6 U	NA	NA	4.3 U	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
Endosulfan sulfate	NA	3.7 U	NA	3.6 U	NA	4.6 U	NA	NA	4.3 U	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
Endrin	NA	3.7 U	NA	3.6 U	NA	1.9 J	NA	NA	4.3 U	4.5 U	NA	0.83 J	NA	4.3 U	NA	0.84 J	NA	4.5 U	NA
Endrin aldehyde	NA	1.8 J	NA	3.6 U	NA	4.6 U	NA	NA	4.3 U	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
Endrin ketone	NA	3.7 U	NA	3.6 U	NA	4.6 U	NA	NA	4.3 U	4.5 U	NA	4 UJ	NA	4.3 U	NA	4.5 U	NA	4.5 U	NA
Heptachlor	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
Heptachlor epoxide	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
Methoxychlor	NA	19 U	NA	19 U	NA	23 U	NA	NA	22 U	23 U	NA	21 UJ	NA	22 U	NA	23 U	NA	23 U	NA
Toxaphene	NA	190 U	NA	190 U	NA	230 U	NA	NA	220 U	230 U	NA	210 UJ	NA	220 U	NA	230 U	NA	230 U	NA
alpha-BHC	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
alpha-Chlordane	NA	1.9 U	NA	1.9 U	NA	1 J	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
beta-BHC	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
delta-BHC	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
gamma-BHC (Lindane)	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
gamma-Chlordane	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	NA	2.2 U	2.3 U	NA	2.1 UJ	NA	2.2 U	NA	2.3 U	NA	2.3 U	NA
Explosives (UG_KG)																			
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G23		MR04-G24		MR04-G25		MR04-H01		MR04-H02				MR04-H04		MR04-H05		MR04-H06	
Sample ID	MR04-G23-0-1-07C	MR04-G23-07C	MR04-G24-0-1-07C	MR04-G24-07C	MR04-G25-0-1-07D	MR04-G25-07D	MR04-H01-0-1-07C	MR04-H01-07C	MR04-H02-0-1-07C	MR04-H02-07C	MR04-H02D-0-1-07C	MR04-H02D-07C	MR04-H04-0-1-07C	MR04-H04-07C	MR04-H05-0-1-07C	MR04-H05-07C	MR04-H06-0-1-07C	MR04-H06-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	10/21/07	10/21/07	09/05/07	09/05/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	4.6 UJ	NA	4.7 U	NA	8.5	NA	4.2 U	NA	130	NA	150	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
4,4'-DDE	1.6 J	NA	1.2 J	NA	140	NA	1.1 J	NA	580	NA	710	NA	2.3 J	NA	5.1 U	NA	8.7	NA
4,4'-DDT	4.2 J	NA	2.7 J	NA	71	NA	0.94 J	NA	470	NA	540	NA	2.8 J	NA	5.1 U	NA	7.8	NA
Aldrin	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
Aroclor-1016	46 UJ	NA	47 U	NA	35 U	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Aroclor-1221	94 UJ	NA	95 U	NA	71 U	NA	84 U	NA	89 U	NA	150 U	NA	84 U	NA	100 U	NA	89 U	NA
Aroclor-1232	46 UJ	NA	47 U	NA	35 U	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Aroclor-1242	46 UJ	NA	47 U	NA	35 U	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Aroclor-1248	46 UJ	NA	47 U	NA	35 U	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Aroclor-1254	46 UJ	NA	47 U	NA	35 U	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Aroclor-1260	46 UJ	NA	47 U	NA	20 J	NA	42 U	NA	44 U	NA	75 U	NA	41 U	NA	51 U	NA	44 U	NA
Dieldrin	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	220	NA	290	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Endosulfan I	0.76 J	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
Endosulfan II	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	4.4 U	NA	7.5 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Endosulfan sulfate	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	4.4 U	NA	7.5 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Endrin	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	2.8 J	NA	7.5 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Endrin aldehyde	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	4.4 U	NA	7.5 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Endrin ketone	4.6 UJ	NA	4.7 U	NA	3.5 U	NA	4.2 U	NA	4.4 U	NA	7.5 U	NA	4.1 U	NA	5.1 U	NA	4.4 U	NA
Heptachlor	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
Heptachlor epoxide	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
Methoxychlor	24 UJ	NA	24 U	NA	18 U	NA	21 U	NA	23 U	NA	39 U	NA	21 U	NA	26 U	NA	23 U	NA
Toxaphene	240 UJ	NA	240 U	NA	180 U	NA	210 U	NA	230 U	NA	390 U	NA	210 U	NA	260 U	NA	230 U	NA
alpha-BHC	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
alpha-Chlordane	2.4 UJ	NA	2.4 U	NA	19 J	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
beta-BHC	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
delta-BHC	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
gamma-BHC (Lindane)	2.4 UJ	NA	2.4 U	NA	1.8 U	NA	2.1 U	NA	2.3 U	NA	3.9 U	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
gamma-Chlordane	2.4 UJ	NA	2.4 U	NA	7 J	NA	2.1 U	NA	2.3 U	NA	3.8 J	NA	2.1 U	NA	2.6 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H07		MR04-H08		MR04-H09		MR04-H10		MR04-H11		MR04-H12		MR04-H13		MR04-H14		MR04-H15	
Sample ID	MR04-H07-0-1-07C	MR04-H07-07C	MR04-H08-0-1-07C	MR04-H08-07C	MR04-H09-0-1-07C	MR04-H09-07C	MR04-H10-0-1-07C	MR04-H10-07C	MR04-H11-0-1-07C	MR04-H11-07C	MR04-H12-0-1-07C	MR04-H12-07C	MR04-H13-0-1-07C	MR04-H13-07C	MR04-H14-0-1-07C	MR04-H14-07C	MR04-H15-0-1-07C	MR04-H15-07C
Sample Date	09/09/07	09/09/07	09/05/07	09/05/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	15	NA	4.7	NA	7.1	NA	2.7 J	NA	3.6 U	NA	1.7 J	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
4,4'-DDE	200	NA	76	NA	170	NA	65	NA	2.4 J	NA	12	NA	3.4 J	NA	4.4 J	NA	8.3	NA
4,4'-DDT	360	NA	11	NA	190	NA	21	NA	1.8 J	NA	9.9	NA	4.3 U	NA	9.2	NA	12	NA
Aldrin	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
Aroclor-1016	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	43 U	NA	37 U	NA
Aroclor-1221	74 U	NA	91 U	NA	80 U	NA	84 U	NA	74 U	NA	89 U	NA	87 U	NA	88 U	NA	75 U	NA
Aroclor-1232	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	43 U	NA	37 U	NA
Aroclor-1242	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	43 U	NA	37 U	NA
Aroclor-1248	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	43 U	NA	37 U	NA
Aroclor-1254	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	43 U	NA	37 U	NA
Aroclor-1260	37 U	NA	45 U	NA	39 U	NA	41 U	NA	36 U	NA	44 U	NA	43 U	NA	42 J	NA	37 U	NA
Dieldrin	38	NA	1.2 J	NA	12	NA	10	NA	3.6 U	NA	0.92 J	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
Endosulfan I	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	0.61 J	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
Endosulfan II	3.7 U	NA	4.5 U	NA	3.9 U	NA	4.1 U	NA	3.6 U	NA	4.4 U	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
Endosulfan sulfate	3.7 U	NA	4.5 U	NA	3.9 U	NA	4.1 U	NA	3.6 U	NA	4.4 U	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
Endrin	3.7 U	NA	4.5 U	NA	3.9 U	NA	4.1 U	NA	3.6 U	NA	4.4 U	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
Endrin aldehyde	2.9 J	NA	4.5 U	NA	2.1 J	NA	4.1 U	NA	3.6 U	NA	4.4 U	NA	4.3 U	NA	3.1 J	NA	3.7 U	NA
Endrin ketone	3.7 U	NA	4.5 U	NA	3.9 U	NA	4.1 U	NA	3.6 U	NA	4.4 U	NA	4.3 U	NA	4.3 U	NA	3.7 U	NA
Heptachlor	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
Heptachlor epoxide	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
Methoxychlor	19 U	NA	23 U	NA	20 U	NA	21 U	NA	19 U	NA	23 U	NA	22 U	NA	22 U	NA	19 U	NA
Toxaphene	190 U	NA	230 U	NA	200 U	NA	210 U	NA	190 U	NA	230 U	NA	220 U	NA	220 U	NA	190 U	NA
alpha-BHC	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
alpha-Chlordane	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
beta-BHC	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	1.2 J	NA	2.2 U	NA	1.9 U	NA
delta-BHC	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
gamma-BHC (Lindane)	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
gamma-Chlordane	1.9 U	NA	2.3 U	NA	2 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.2 U	NA	2.2 U	NA	1.9 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	280 R	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H16		MR04-H17				MR04-H18		MR04-H19		MR04-H20	
Sample ID	MR04-H16-0-1-07C	MR04-H16-07C	MR04-H17-07C	MR04-H17-0-1-07C	MR04-H17D-0-1-07C	MR04-H17D-07C	MR04-H18-0-1-07C	MR04-H18-07C	MR04-H19-0-1-07C	MR04-H19-07C	MR04-H20-0-1-07C	MR04-H20-07C
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name												
Pesticide/Polychlorinated Biphenyls (UG_KG)												
4,4'-DDD	4.3	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
4,4'-DDE	250	NA	NA	4.3 U	4.5 J	NA	0.83 J	NA	4.8 U	NA	3.9 UJ	NA
4,4'-DDT	48	NA	NA	3.3 J	13	NA	1.2 J	NA	4.8 U	NA	3.9 UJ	NA
Aldrin	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
Aroclor-1016	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Aroclor-1221	85 U	NA	NA	87 U	74 U	NA	84 U	NA	98 U	NA	80 UJ	NA
Aroclor-1232	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Aroclor-1242	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Aroclor-1248	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Aroclor-1254	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Aroclor-1260	42 U	NA	NA	43 U	36 U	NA	42 U	NA	48 U	NA	39 UJ	NA
Dieldrin	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Endosulfan I	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
Endosulfan II	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Endosulfan sulfate	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Endrin	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Endrin aldehyde	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Endrin ketone	4.2 U	NA	NA	4.3 U	3.6 U	NA	4.2 U	NA	4.8 U	NA	3.9 UJ	NA
Heptachlor	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
Heptachlor epoxide	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
Methoxychlor	22 U	NA	NA	22 U	19 U	NA	21 U	NA	25 U	NA	20 UJ	NA
Toxaphene	220 U	NA	NA	220 U	190 U	NA	210 U	NA	250 U	NA	200 UJ	NA
alpha-BHC	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
alpha-Chlordane	2.2 U	NA	NA	1.6 J	1.8 J	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
beta-BHC	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
delta-BHC	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
gamma-BHC (Lindane)	2.2 U	NA	NA	2.2 U	1.9 U	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
gamma-Chlordane	2.2 U	NA	NA	2.2 U	1.1 J	NA	2.1 U	NA	2.5 U	NA	2 UJ	NA
Explosives (UG_KG)												
1,3,5-Trinitrobenzene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	NA	120 U	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	NA	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F22		MR04-F23		MR04-F24		MR04-F25		MR04-G01		MR04-G02		MR04-G04		MR04-G05		MR04-G06	
Sample ID	MR04-F22-0-1-07C	MR04-F22-07C	MR04-F23-0-1-07C	MR04-F23-07C	MR04-F24-0-1-07C	MR04-F24-07C	MR04-F25-0-1-07C	MR04-F25-07C	MR04-G01-0-1-07C	MR04-G01-07C	MR04-G02-0-1-07C	MR04-G02-07C	MR04-G04-0-1-07C	MR04-G04-07C	MR04-G05-0-1-07C	MR04-G05-07C	MR04-G06-0-1-07C	MR04-G06-07C
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	09/10/07	09/10/07	09/11/07	09/11/07	09/11/07	09/11/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	4,270	NA	5,070	NA	3,770	NA	4,290	NA	3,890	NA	4,020	NA	5,420	NA	7,110	NA	6,590	NA
Antimony	4.9 UJ	NA	6.7 UJ	NA	2 J	NA	7.6 UJ	NA	5.5 UJ	NA	5.1 UJ	NA	6.1 UJ	NA	0.47 J	NA	0.41 J	NA
Arsenic	1.8	NA	2.6	NA	2.7	NA	1.2 J	NA	1.4	NA	1.6	NA	2.2	NA	2.7	NA	2.9	NA
Barium	10.8 J	NA	14.7 J	NA	11 J	NA	10.8 J	NA	15.5 J	NA	12.1 J	NA	21.6	NA	19.6 J	NA	27.1 J	NA
Beryllium	0.07 J	NA	0.052 J	NA	0.049 J	NA	0.035 J	NA	0.019 J	NA	0.42 U	NA	0.025 J	NA	0.056 J	NA	0.08 J	NA
Cadmium	0.093 J	NA	0.048 J	NA	0.16 J	NA	0.64 U	NA	0.19 J	NA	0.18 J	NA	0.12 J	NA	0.14 J	NA	0.1 J	NA
Calcium	13,200	NA	19,500	NA	7,760	NA	736	NA	8,600	NA	21,800	NA	5,230	NA	11,000 J	NA	12,400 J	NA
Chromium	6.1	NA	6.1	NA	4.9	NA	3.3	NA	5.2	NA	6.3 J	NA	7.4 J	NA	10.4	NA	11.6	NA
Cobalt	0.76 J	NA	0.27 J	NA	0.18 J	NA	0.2 J	NA	0.27 J	NA	0.22 J	NA	0.25 J	NA	0.38 J	NA	0.44 J	NA
Copper	1.1 J	NA	2.3 J	NA	7.2	NA	0.69 J	NA	2.6	NA	6.7	NA	4.4	NA	4.8	NA	3.4	NA
Cyanide	2.9 U	NA	3.4 U	NA	3.4 U	NA	3.8 U	NA	2.8 U	NA	2.8 UJ	NA	3.2 UJ	NA	2.7 U	NA	2.8 U	NA
Iron	2,390	NA	3,300	NA	2,780	NA	1,640	NA	2,960	NA	3,440	NA	5,490	NA	8,010	NA	6,070	NA
Lead	6	NA	12.3	NA	34.9	NA	4.7	NA	32.4	NA	29.4 J	NA	21.8 J	NA	32.8	NA	40.7	NA
Magnesium	266 J	NA	406 J	NA	213 J	NA	103 J	NA	239 J	NA	461	NA	234 J	NA	391 J	NA	387 J	NA
Manganese	10.3	NA	11.7	NA	11.9	NA	7.8	NA	12.3	NA	13.2	NA	12.7	NA	16.8 J	NA	16.4 J	NA
Mercury	0.079 U	NA	0.028 J	NA	0.034 J	NA	0.15 U	NA	0.067 U	NA	0.026 J	NA	0.073	NA	0.22 U	NA	0.043 J	NA
Nickel	2 J	NA	1.4 J	NA	3.9 J	NA	1.2 J	NA	1.7 J	NA	3.4 U	NA	4 U	NA	1.8 J	NA	1.8 J	NA
Potassium	136 J	NA	148 J	NA	99.9 J	NA	62.7 J	NA	144 J	NA	165 J	NA	203 J	NA	283 J	NA	281 J	NA
Selenium	0.39 J	NA	0.37 J	NA	3.6 U	NA	4.4 U	NA	0.28 J	NA	0.57 J	NA	3.5 U	NA	0.3 J	NA	0.45 J	NA
Silver	0.81 U	NA	1.1 U	NA	1 U	NA	1.3 U	NA	0.91 U	NA	0.85 U	NA	1 U	NA	0.91 U	NA	0.86 U	NA
Sodium	48.5 J	NA	50.4 J	NA	26 J	NA	19.2 J	NA	37.4 J	NA	424 U	NA	505 U	NA	36 J	NA	34.2 J	NA
Thallium	2 U	NA	2.8 U	NA	2.6 U	NA	3.2 U	NA	2.3 U	NA	2.1 U	NA	2.5 U	NA	2.3 U	NA	2.2 U	NA
Vanadium	6.7	NA	8.7	NA	6.1	NA	4.6 J	NA	7.5	NA	7.7	NA	11.5	NA	14.8	NA	15.2	NA
Zinc	8.4	NA	16.8	NA	25.3	NA	3.7 J	NA	34.6	NA	27	NA	13.5	NA	39.3	NA	22.3	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0023 U	NA	0.0028 U	NA	0.0027 U	NA	0.003 U	NA	0.0028 U	NA	0.0023 U	NA	0.0027 U	NA	0.0025 U	NA	0.0023 U	NA

Notes:
U- Analyte not detected
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Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G07		MR04-G08				MR04-G09		MR04-G10		MR04-G11		MR04-G12		MR04-G13		MR04-G14		
Sample ID	MR04-G07-0-1-07C	MR04-G07-07C	MR04-G08-0-1-07C	MR04-G08D-07C	MR04-G08D-0-1-07C	MR04-G08-07C	MR04-G09-0-1-07C	MR04-G09-07C	MR04-G10-0-1-07C	MR04-G10-07C	MR04-G11-0-1-07C	MR04-G11-07C	MR04-G12-0-1-07C	MR04-G12-07C	MR04-G13-0-1-07C	MR04-G13-07C	MR04-G14-0-1-07C	MR04-G14-07C	MR04-G14D-0-1-07C
Sample Date	09/11/07	09/11/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																			
Total Metals (MG_KG)																			
Aluminum	3,730	NA	3,990	NA	3,380	NA	3,750	NA	4,100	NA	4,320	NA	4,930	NA	3,650	NA	5,290	NA	5,730
Antimony	5.4 UJ	NA	5.6 UJ	NA	4.7 U	NA	4.8 UJ	NA	4.5 UJ	NA	4.6 UJ	NA	5.5 UJ	NA	5.9 UJ	NA	6 UJ	NA	5 UJ
Arsenic	1.2 U	NA	1.5	NA	1.7	NA	1.3	NA	1.5	NA	1.4	NA	1.4	NA	1.4	NA	2.1	NA	2
Barium	18.9 J	NA	24.6	NA	20.1 J	NA	14.6 J	NA	12.5 J	NA	16.4 J	NA	18.5 J	NA	14.7 J	NA	20.8	NA	18.8
Beryllium	0.047 J	NA	0.043 J	NA	0.39 U	NA	0.05 J	NA	0.038 J	NA	0.39 U	NA	0.46 U	NA	0.04 J	NA	0.058 J	NA	0.065 J
Cadmium	0.087 J	NA	0.4 J	NA	0.28 J	NA	0.15 J	NA	0.16 J	NA	0.068 J	NA	0.085 J	NA	0.085 J	NA	0.22 J	NA	0.12 J
Calcium	1,960 J	NA	35,300	NA	47,200 J	NA	44,800	NA	37,700	NA	12,400 J	NA	5,050 J	NA	3,620	NA	26,200	NA	5,170
Chromium	4.2	NA	6.9	NA	5.9	NA	4.6	NA	5	NA	4.4	NA	5.7	NA	4.8	NA	6.8	NA	6.4
Cobalt	0.19 J	NA	0.27 J	NA	3.9 U	NA	0.26 J	NA	0.31 J	NA	3.9 U	NA	4.6 U	NA	0.2 J	NA	0.37 J	NA	0.39 J
Copper	2.3	NA	9.3	NA	5.4	NA	2.6	NA	1.7 J	NA	2.3	NA	2.1 J	NA	1.9 J	NA	3.2	NA	2.5
Cyanide	2.9 U	NA	3.2 U	NA	2.8 U	NA	2.7 U	NA	2.9 U	NA	2.5 U	NA	2.9 U	NA	3 U	NA	3 U	NA	2.6 U
Iron	2,570	NA	2,440	NA	2,040 J	NA	1,940	NA	2,320	NA	2,140 J	NA	2,730 J	NA	2,670	NA	3,690	NA	3,880
Lead	31.1	NA	28.4	NA	29.5	NA	94.5	NA	7.5	NA	18.5	NA	29.8	NA	35.6	NA	21.9	NA	19
Magnesium	157 J	NA	643	NA	802	NA	711	NA	636	NA	319 J	NA	238 J	NA	192 J	NA	601	NA	307 J
Manganese	16.6 J	NA	17.6	NA	23.4	NA	16.7	NA	25.2	NA	13.4	NA	15.7	NA	12.7	NA	20.2	NA	13.8
Mercury	0.22 U	NA	0.47	NA	0.2	NA	0.055 U	NA	0.053 U	NA	0.036 J	NA	0.038 J	NA	0.013 J	NA	0.024 J	NA	0.021 J
Nickel	1.2 J	NA	1.7 J	NA	1.9 J	NA	1.5 J	NA	1.6 J	NA	1.2 J	NA	1.6 J	NA	1.3 J	NA	1.8 J	NA	1.8 J
Potassium	137 J	NA	138 J	NA	176 J	NA	142 J	NA	168 J	NA	100 J	NA	148 J	NA	121 J	NA	190 J	NA	173 J
Selenium	0.39 J	NA	0.73 J	NA	0.39 J	NA	0.85 J	NA	0.55 J	NA	0.25 J	NA	3.2 U	NA	3.4 U	NA	0.65 J	NA	2.9 U
Silver	0.9 U	NA	1	NA	0.52 J	NA	0.8 U	NA	0.75 U	NA	0.78 U	NA	0.19 J	NA	0.99 U	NA	1 U	NA	0.83 U
Sodium	17.5 J	NA	55.7 J	NA	81 J	NA	77.7 J	NA	52.2 J	NA	29 J	NA	26.4 J	NA	12.7 J	NA	35.9 J	NA	38.4 J
Thallium	2.2 U	NA	2.3 U	NA	2 U	NA	2 U	NA	1.9 U	NA	1.9 U	NA	2.3 U	NA	2.5 U	NA	2.5 U	NA	2.1 U
Vanadium	6.6	NA	7.4	NA	7.7	NA	6.7	NA	8.4	NA	6.2	NA	8.7	NA	6.7	NA	9.5	NA	9.6
Zinc	18.2	NA	38.1	NA	30.3	NA	16.3	NA	9.5	NA	9.8	NA	15.7	NA	19.3	NA	65.9	NA	45.5
Wet Chemistry (MG_KG)																			
Perchlorate	0.0024 U	NA	0.0029 U	NA	0.0022 U	NA	0.0024 U	NA	0.0024 U	NA	0.0022 U	NA	0.0025 U	NA	0.0026 U	NA	0.0026 U	NA	0.0022 U

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID		MR04-G15		MR04-G16		MR04-G17		MR04-G18		MR04-G19				MR04-G20		MR04-G21		MR04-G22	
Sample ID	MR04-G14D-07C	MR04-G15-0-1-07C	MR04-G15-07C	MR04-G16-0-1-07C	MR04-G16-07C	MR04-G17-0-1-07C	MR04-G17-07C	MR04-G18-07C	MR04-G18-0-1-07C	MR04-G19-0-1-07C	MR04-G19-07C	MR04-G19D-0-1-07C	MR04-G19D-07C	MR04-G20-0-1-07C	MR04-G20-07C	MR04-G21-0-1-07C	MR04-G21-07C	MR04-G22-0-1-07C	MR04-G22-07C
Sample Date	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name																			
Total Metals (MG_KG)																			
Aluminum	NA	2,880 J	NA	4,260 J	NA	5,210	NA	NA	4,350	4,490	NA	4,910	NA	4,920	NA	8,100	NA	4,290	NA
Antimony	NA	5 UJ	NA	4.8 UJ	NA	6.3 UJ	NA	NA	5.7 UJ	6.2 UJ	NA	5.4 UJ	NA	5.7 UJ	NA	6 UJ	NA	6 UJ	NA
Arsenic	NA	1.3	NA	1.9	NA	1.9	NA	NA	2.1	2	NA	1.9	NA	2.2	NA	3.5	NA	1.7	NA
Barium	NA	26.3	NA	15.8 J	NA	23.9 J	NA	NA	16.7 J	15.1 J	NA	14.8 J	NA	17.7 J	NA	17.6 J	NA	12.8 J	NA
Beryllium	NA	0.027 J	NA	0.094 J	NA	0.042 J	NA	NA	0.067 J	0.061 J	NA	0.06 J	NA	0.062 J	NA	0.083 J	NA	0.048 J	NA
Cadmium	NA	0.13 J	NA	0.2 J	NA	0.12 J	NA	NA	0.31 J	0.24 J	NA	0.2 J	NA	0.22 J	NA	0.11 J	NA	0.06 J	NA
Calcium	NA	9,410 J	NA	8,400 J	NA	4,610	NA	NA	35,700	28,300	NA	22,600	NA	23,900	NA	5,660	NA	15,300	NA
Chromium	NA	4.3 J	NA	7.4 J	NA	6.8	NA	NA	9.3	8.8	NA	8	NA	8.9	NA	9	NA	4.5	NA
Cobalt	NA	0.24 J	NA	0.81 J	NA	0.51 J	NA	NA	1.3 J	0.95 J	NA	0.85 J	NA	0.81 J	NA	0.39 J	NA	0.17 J	NA
Copper	NA	3.2	NA	1.9 J	NA	2.7	NA	NA	4.2	2.8	NA	2.4	NA	1.6 J	NA	2.4 J	NA	1.3 J	NA
Cyanide	NA	2.7 U	NA	2.5 U	NA	3.1 U	NA	NA	2.7 U	2.7 U	NA	2.9 U	NA	3 U	NA	3.2 U	NA	3.2 U	NA
Iron	NA	2,240 J	NA	2,330 J	NA	3,920	NA	NA	4,850	2,960	NA	2,860	NA	3,080	NA	4,830 J	NA	2,040	NA
Lead	NA	41.8	NA	15.3	NA	27.4	NA	NA	19.2	14.6	NA	12.9	NA	6	NA	11.2	NA	9.2	NA
Magnesium	NA	291 J	NA	316 J	NA	253 J	NA	NA	640	619	NA	514	NA	505	NA	395 J	NA	313 J	NA
Manganese	NA	13.4	NA	15.9	NA	14	NA	NA	27.6	17.6	NA	25	NA	14.4	NA	15.2 J	NA	17	NA
Mercury	NA	0.1 U	NA	0.096 U	NA	0.013 J	NA	NA	0.019 J	0.013 J	NA	0.0087 J	NA	0.057 U	NA	0.11 U	NA	0.011 J	NA
Nickel	NA	1.5 J	NA	2.3 J	NA	1.7 J	NA	NA	4.3	2.7 J	NA	2.5 J	NA	2.6 J	NA	1.8 J	NA	1.4 J	NA
Potassium	NA	113 J	NA	179 J	NA	184 J	NA	NA	198 J	198 J	NA	174 J	NA	196 J	NA	279 J	NA	126 J	NA
Selenium	NA	0.39 J	NA	0.32 J	NA	0.28 J	NA	NA	0.87 J	0.74 J	NA	0.72 J	NA	0.59 J	NA	3.5 U	NA	3.5 U	NA
Silver	NA	0.83 U	NA	0.8 U	NA	1.1 U	NA	NA	0.94 U	1 U	NA	0.91 U	NA	0.96 U	NA	1 U	NA	1 U	NA
Sodium	NA	33.2 J	NA	56.6 J	NA	22.9 J	NA	NA	93.2 J	93.1 J	NA	69.4 J	NA	101 J	NA	30.6 J	NA	32.4 J	NA
Thallium	NA	2.1 U	NA	2 U	NA	2.6 U	NA	NA	2.4 U	2.6 U	NA	2.3 U	NA	2.4 U	NA	2.5 U	NA	2.5 U	NA
Vanadium	NA	5.8	NA	7.4	NA	7.9	NA	NA	8.7	9.9	NA	9.3	NA	8.8	NA	11.7	NA	5.1	NA
Zinc	NA	61.9	NA	31.2	NA	54.8	NA	NA	131	48.2	NA	39.4	NA	32.7	NA	10.7	NA	9.3	NA
Wet Chemistry (MG_KG)																			
Perchlorate	NA	0.0044 U	NA	0.0022 U	NA	0.0028 U	NA	NA	0.0026 U	0.0027 U	NA	0.0025 U	NA	0.0026 U	NA	0.0028 U	NA	0.0027 U	NA

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-G23		MR04-G24		MR04-G25		MR04-H01		MR04-H02				MR04-H04		MR04-H05		MR04-H06	
Sample ID	MR04-G23-0-1-07C	MR04-G23-07C	MR04-G24-0-1-07C	MR04-G24-07C	MR04-G25-0-1-07D	MR04-G25-07D	MR04-H01-0-1-07C	MR04-H01-07C	MR04-H02-0-1-07C	MR04-H02-07C	MR04-H02D-0-1-07C	MR04-H02D-07C	MR04-H04-0-1-07C	MR04-H04-07C	MR04-H05-0-1-07C	MR04-H05-07C	MR04-H06-0-1-07C	MR04-H06-07C
Sample Date	09/08/07	09/08/07	09/08/07	09/08/07	10/21/07	10/21/07	09/05/07	09/05/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	6,960	NA	3,820	NA	3,320	NA	3,020	NA	2,770	NA	3,150	NA	1,800	NA	4,680	NA	5,480	NA
Antimony	6.2 UJ	NA	6.3 UJ	NA	4.3 UJ	NA	5 UJ	NA	5.9 UJ	NA	5 UJ	NA	5.8 UJ	NA	7.6 UJ	NA	6.6 UJ	NA
Arsenic	4.2	NA	1.3	NA	1.8	NA	1.1	NA	0.96 J	NA	1.2	NA	0.61 J	NA	1.3	NA	1.2	NA
Barium	13 J	NA	19.8 J	NA	11.5 J	NA	14.8 J	NA	26.1	NA	26.6	NA	6.1 J	NA	14.2 J	NA	37.6	NA
Beryllium	0.036 J	NA	0.062 J	NA	0.36 U	NA	0.41 U	NA	0.015 J	NA	0.013 J	NA	0.48 U	NA	0.033 J	NA	0.12 J	NA
Cadmium	0.1 J	NA	0.13 J	NA	0.19 J	NA	0.096 J	NA	0.059 J	NA	0.095 J	NA	0.48 U	NA	0.64 U	NA	0.061 J	NA
Calcium	3,510	NA	1,130	NA	10,500	NA	1,590	NA	11,800	NA	22,600	NA	157 J	NA	374 J	NA	1,520	NA
Chromium	10.2	NA	6	NA	4.5	NA	3.9	NA	3.4	NA	4.4	NA	1.8	NA	3.4	NA	2.9	NA
Cobalt	0.48 J	NA	0.19 J	NA	0.27 J	NA	0.2 J	NA	0.14 J	NA	0.18 J	NA	0.078 J	NA	0.14 J	NA	0.17 J	NA
Copper	3.8	NA	0.97 J	NA	2.3	NA	2 J	NA	1.6 J	NA	2.3	NA	0.34 J	NA	0.81 J	NA	1.3 J	NA
Cyanide	3.5 U	NA	3.5 U	NA	2.6 U	NA	2.9 U	NA	3.2 U	NA	2.8 U	NA	2.6 U	NA	3.5 U	NA	3.1 U	NA
Iron	3,970	NA	2,230	NA	2,180	NA	2,270	NA	2,190	NA	2,450	NA	1,690	NA	2,170	NA	2,000	NA
Lead	7.4	NA	4.7	NA	29.5	NA	20.1	NA	29.5	NA	54.4	NA	7.4	NA	7.4	NA	19.3	NA
Magnesium	267 J	NA	137 J	NA	298 J	NA	114 J	NA	308 J	NA	505	NA	47.3 J	NA	136 J	NA	188 J	NA
Manganese	10	NA	5.8	NA	13.7	NA	8.8	NA	6.6	NA	9.7	NA	4.5	NA	7.5	NA	24.6	NA
Mercury	0.059 U	NA	0.012 J	NA	0.98	NA	0.056	NA	0.13 U	NA	0.025 J	NA	0.11 U	NA	0.021 J	NA	0.031 J	NA
Nickel	2 J	NA	0.79 J	NA	1.5 J	NA	1.2 J	NA	1.3 J	NA	1.7 J	NA	0.48 J	NA	1.1 J	NA	1.4 J	NA
Potassium	211 J	NA	132 J	NA	120 J	NA	116 J	NA	49.1 J	NA	77.8 J	NA	47.4 J	NA	112 J	NA	124 J	NA
Selenium	3.6 U	NA	3.6 U	NA	0.28 J	NA	2.9 U	NA	3.4 U	NA	0.41 J	NA	3.4 U	NA	4.5 U	NA	0.42 J	NA
Silver	1 U	NA	1 U	NA	0.72 UJ	NA	0.82 U	NA	0.98 U	NA	0.84 U	NA	0.96 U	NA	1.3 U	NA	1.1 U	NA
Sodium	34.9 J	NA	23.2 J	NA	36.4 J	NA	11.8 J	NA	28.2 J	NA	49 J	NA	4.7 J	NA	20.9 J	NA	19.7 J	NA
Thallium	2.6 U	NA	2.6 U	NA	1.8 U	NA	2.1 U	NA	2.4 U	NA	2.1 U	NA	2.4 U	NA	3.2 U	NA	2.7 U	NA
Vanadium	10.5	NA	6.1	NA	5.7	NA	6.3	NA	5.6	NA	7.1	NA	4 J	NA	5.9 J	NA	5.7	NA
Zinc	52	NA	7	NA	28.3	NA	8.2	NA	10.2	NA	19.6	NA	1.7 J	NA	2.8 J	NA	8	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0028 U	NA	0.0029 U	NA	0.0021 U	NA	0.0025 U	NA	0.0027 U	NA	0.0023 U	NA	0.0025 U	NA	0.0031 U	NA	0.0027 U	NA

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Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H07		MR04-H08		MR04-H09		MR04-H10		MR04-H11		MR04-H12		MR04-H13		MR04-H14		MR04-H15	
Sample ID	MR04-H07-0-1-07C	MR04-H07-07C	MR04-H08-0-1-07C	MR04-H08-07C	MR04-H09-0-1-07C	MR04-H09-07C	MR04-H10-0-1-07C	MR04-H10-07C	MR04-H11-0-1-07C	MR04-H11-07C	MR04-H12-0-1-07C	MR04-H12-07C	MR04-H13-0-1-07C	MR04-H13-07C	MR04-H14-0-1-07C	MR04-H14-07C	MR04-H15-0-1-07C	MR04-H15-07C
Sample Date	09/09/07	09/09/07	09/05/07	09/05/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,010	NA	4,630	NA	3,600	NA	3,560	NA	5,060	NA	4,830	NA	3,540	NA	3,900	NA	3,190	NA
Antimony	4.9 UJ	NA	5.3 UJ	NA	5.2 UJ	NA	5.1 UJ	NA	4.6 U	NA	5.5 UJ	NA	5.9 UJ	NA	5.8 UJ	NA	5 UJ	NA
Arsenic	1.1	NA	1.3	NA	1	NA	1.3	NA	1.6	NA	2	NA	2.4	NA	1.9	NA	1.7	NA
Barium	14.1 J	NA	16.3 J	NA	32.4	NA	12.7 J	NA	16.3 J	NA	16.3 J	NA	20.3	NA	17.7 J	NA	16.6 J	NA
Beryllium	0.027 J	NA	0.033 J	NA	0.045 J	NA	0.43 U	NA	0.39 U	NA	0.46 U	NA	0.078 J	NA	0.046 J	NA	0.04 J	NA
Cadmium	0.09 J	NA	0.14 J	NA	0.081 J	NA	0.069 J	NA	0.22 J	NA	0.16 J	NA	0.28 J	NA	0.21 J	NA	0.11 J	NA
Calcium	14,400	NA	7,510	NA	4,860	NA	8,810 J	NA	7,610 J	NA	18,200 J	NA	52,800	NA	26,400	NA	15,600	NA
Chromium	3.2	NA	4.9	NA	3.6	NA	4.4	NA	8.1	NA	8	NA	10.8	NA	6.4	NA	4.6	NA
Cobalt	0.14 J	NA	0.28 J	NA	0.24 J	NA	4.3 U	NA	3.9 U	NA	4.6 U	NA	1.1 J	NA	0.44 J	NA	0.23 J	NA
Copper	1.2 J	NA	1.4 J	NA	2.2	NA	2.6	NA	4.2	NA	2.8	NA	1.8 J	NA	3.1	NA	2.8	NA
Cyanide	2.8 U	NA	3.3 U	NA	2.8 U	NA	2.9 U	NA	2.7 U	NA	3.3 U	NA	3.1 U	NA	3.2 U	NA	2.5 U	NA
Iron	1,930	NA	2,800	NA	2,570	NA	2,400 J	NA	2,850 J	NA	2,550 J	NA	2,500	NA	2,690	NA	3,120	NA
Lead	21.6	NA	33	NA	23.7	NA	21.9	NA	12.2	NA	13	NA	9.1	NA	17.6	NA	15.8	NA
Magnesium	283 J	NA	256 J	NA	247 J	NA	297 J	NA	350 J	NA	565	NA	901	NA	592	NA	330 J	NA
Manganese	14.7	NA	15.6	NA	10.5	NA	15	NA	15.6	NA	16.7	NA	16.3	NA	15.7	NA	14.5	NA
Mercury	0.11 U	NA	0.058 U	NA	0.014 J	NA	0.026 J	NA	0.015 J	NA	0.023 J	NA	0.11 U	NA	0.042 J	NA	0.015 J	NA
Nickel	1 J	NA	1.9 J	NA	1.4 J	NA	1.3 J	NA	2 J	NA	2.5 J	NA	2.5 J	NA	1.9 J	NA	1.2 J	NA
Potassium	62.2 J	NA	130 J	NA	106 J	NA	156 J	NA	179 J	NA	191 J	NA	213 J	NA	170 J	NA	143 J	NA
Selenium	0.32 J	NA	3.1 U	NA	3 U	NA	0.27 J	NA	0.4 J	NA	0.31 J	NA	1.3 J	NA	0.51 J	NA	0.47 J	NA
Silver	0.82 U	NA	0.88 U	NA	0.86 U	NA	0.15 J	NA	0.78 U	NA	0.15 J	NA	0.98 U	NA	0.97 U	NA	0.84 U	NA
Sodium	30.4 J	NA	27.4 J	NA	15.8 J	NA	33.2 J	NA	48.8 J	NA	52.9 J	NA	117 J	NA	51.8 J	NA	17.8 J	NA
Thallium	2 U	NA	2.2 U	NA	2.1 U	NA	2.1 U	NA	1.9 U	NA	2.3 U	NA	2.5 U	NA	2.4 U	NA	2.1 U	NA
Vanadium	5.2	NA	8.9	NA	6.4	NA	6.5	NA	8.9	NA	8.1	NA	9.3	NA	7.5	NA	6.1	NA
Zinc	9.2	NA	27.9	NA	9.5	NA	14.5	NA	32.3	NA	65.1	NA	28.9	NA	223	NA	51	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0022 U	NA	0.0027 U	NA	0.0024 U	NA	0.0025 U	NA	0.0022 U	NA	0.0026 U	NA	0.0026 U	NA	0.0026 U	NA	0.0022 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units F22-H20
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-H16		MR04-H17				MR04-H18		MR04-H19		MR04-H20	
Sample ID	MR04-H16-0-1-07C	MR04-H16-07C	MR04-H17-07C	MR04-H17-0-1-07C	MR04-H17D-0-1-07C	MR04-H17D-07C	MR04-H18-0-1-07C	MR04-H18-07C	MR04-H19-0-1-07C	MR04-H19-07C	MR04-H20-0-1-07C	MR04-H20-07C
Sample Date	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/07/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07	09/08/07
Chemical Name												
Total Metals (MG_KG)												
Aluminum	2,800 J	NA	NA	3,680 J	3,400 J	NA	3,990	NA	4,690	NA	4,590	NA
Antimony	5.6 UJ	NA	NA	5.9 UJ	4.9 UJ	NA	5.7 UJ	NA	6.7 UJ	NA	5.4 UJ	NA
Arsenic	1.1	NA	NA	1.8	1.3	NA	1.7	NA	1.6	NA	2.5	NA
Barium	12.2 J	NA	NA	11.1 J	10.6 J	NA	22.8 J	NA	17.9 J	NA	13.8 J	NA
Beryllium	0.032 J	NA	NA	0.039 J	0.027 J	NA	0.052 J	NA	0.054 J	NA	0.072 J	NA
Cadmium	0.094 J	NA	NA	0.13 J	0.13 J	NA	0.18 J	NA	0.16 J	NA	0.24 J	NA
Calcium	15,100 J	NA	NA	81,500 J	14,400 J	NA	7,990	NA	5,740	NA	24,500	NA
Chromium	3.9 J	NA	NA	6.1 J	4.1 J	NA	6.4	NA	5.9	NA	9.3	NA
Cobalt	0.18 J	NA	NA	0.21 J	0.19 J	NA	0.64 J	NA	0.41 J	NA	0.84 J	NA
Copper	2.2 J	NA	NA	2.4 J	2.2	NA	2.2 J	NA	1.5 J	NA	2.4	NA
Cyanide	2.6 U	NA	NA	3.1 U	2.5 U	NA	3.1 U	NA	3.6 U	NA	2.7 U	NA
Iron	2,070 J	NA	NA	2,330 J	2,020 J	NA	2,530	NA	3,350	NA	4,740	NA
Lead	32.8	NA	NA	11.3	12.3	NA	14.6	NA	9	NA	15	NA
Magnesium	361 J	NA	NA	1,230	338 J	NA	259 J	NA	257 J	NA	508	NA
Manganese	10.7	NA	NA	20.5	36.8	NA	11.9	NA	14.2	NA	15.4	NA
Mercury	0.015 J	NA	NA	0.1 U	0.091 U	NA	0.051 U	NA	0.064 U	NA	0.02 J	NA
Nickel	1.2 J	NA	NA	1.8 J	1.4 J	NA	1.7 J	NA	1.3 J	NA	2.3 J	NA
Potassium	106 J	NA	NA	169 J	117 J	NA	143 J	NA	167 J	NA	202 J	NA
Selenium	0.3 J	NA	NA	1.4 J	0.54 J	NA	0.33 J	NA	0.39 J	NA	0.97 J	NA
Silver	0.93 U	NA	NA	0.98 U	0.82 U	NA	0.95 U	NA	1.1 U	NA	0.91 U	NA
Sodium	32.7 J	NA	NA	97.5 J	33.6 J	NA	42.6 J	NA	44.7 J	NA	75.7 J	NA
Thallium	2.3 U	NA	NA	2.5 U	2 U	NA	2.4 U	NA	2.8 U	NA	2.3 U	NA
Vanadium	5.8	NA	NA	7.7	5.6	NA	6.5	NA	7.2	NA	9.6	NA
Zinc	27.7	NA	NA	68	58.8	NA	77.4	NA	33.9	NA	41.5	NA
Wet Chemistry (MG_KG)												
Perchlorate	0.0025 U	NA	NA	0.0026 U	0.0022 U	NA	0.0025 U	NA	0.003 U	NA	0.0024 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D07		MR04-D08		MR04-D09		MR04-D10		MR04-D11		MR04-D12		MR04-D13		MR04-D14	
Sample ID	MR04-D07-07D	MR04-D07-0-1-07D	MR04-D08-07D	MR04-D08-0-1-07D	MR04-D09-07D	MR04-D09-0-1-07D	MR04-D10-07D	MR04-D10-0-1-07D	MR04-D11-07D	MR04-D11-0-1-07D	MR04-D12-07C	MR04-D12-0-1-07C	MR04-D13-07D	MR04-D13-0-1-07D	MR04-D14-07D	MR04-D14-0-1-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
1,1,1-Trichloroethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,1,2,2-Tetrachloroethane	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,1,2-Trichloroethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,1-Dichloroethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,1-Dichloroethene	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,2,4-Trichlorobenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,2-Dibromo-3-chloropropane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,2-Dibromoethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,2-Dichlorobenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,2-Dichloroethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,2-Dichloropropane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
1,3-Dichlorobenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
1,4-Dichlorobenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
2-Butanone	14 J	NA	6.9 J	NA	10	NA	54 J	NA	3.4 J	NA	10 UJ	NA	7.9 J	NA	36 J	NA
2-Hexanone	10 UJ	NA	12 U	NA	9.3 U	NA	60 UJ	NA	5.3 UJ	NA	10 UJ	NA	11 UJ	NA	38 UJ	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Acetone	140 J	NA	270 J	NA	130 J	NA	1,500 J	NA	52 J	NA	10 UJ	NA	190 J	NA	370 J	NA
Benzene	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Bromodichloromethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Bromoform	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Bromomethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Carbon disulfide	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Carbon tetrachloride	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Chlorobenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Chloroethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Chloroform	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Chloromethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Cyclohexane	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Dibromochloromethane	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Dichlorodifluoromethane (Freon-12)	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Ethylbenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Isopropylbenzene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Methyl acetate	14 J	NA	74	NA	120	NA	200	NA	20	NA	25	NA	5.8 J	NA	230	NA
Methyl-tert-butyl ether (MTBE)	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Methylcyclohexane	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Methylene chloride	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Styrene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	12 J	NA
Tetrachloroethene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
Toluene	10 UJ	NA	12 U	NA	1.6 J	NA	10 J	NA	0.43 J	NA	2 J	NA	11 U	NA	3 J	NA
Trichloroethene	10	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Trichlorofluoromethane(Freon-11)	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Vinyl chloride	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
Xylene, total	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA
cis-1,2-Dichloroethene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
cis-1,3-Dichloropropene	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
trans-1,2-Dichloroethene	10 UJ	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 U	NA	11 U	NA	38 U	NA
trans-1,3-Dichloropropene	10 U	NA	12 U	NA	9.3 U	NA	60 U	NA	5.3 U	NA	10 UJ	NA	11 U	NA	38 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D15				MR04-D16		MR04-D17		MR04-D18		MR04-D19		MR04-E01		MR04-E02		MR04-E03	
Sample ID	MR04-D15D-07C	MR04-D15D-0-1-07C	MR04-D15-07C	MR04-D15-0-1-07C	MR04-D16-07C	MR04-D16-0-1-07C	MR04-D17-07C	MR04-D17-0-1-07C	MR04-D18-07C	MR04-D18-0-1-07C	MR04-D19-07C	MR04-D19-0-1-07C	MR04-E01-07C	MR04-E01-0-1-07C	MR04-E02-07C	MR04-E02-0-1-07C	MR04-E03-07D	MR04-E03-0-1-07D
Sample Date	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,1,2,2-Tetrachloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,1,2-Trichloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,1-Dichloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,1-Dichloroethene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,2,4-Trichlorobenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,2-Dibromo-3-chloropropane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,2-Dibromoethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,2-Dichlorobenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,2-Dichloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,2-Dichloropropane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
1,3-Dichlorobenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
1,4-Dichlorobenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
2-Butanone	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	7 J	NA	7 J	NA	10 U	NA
2-Hexanone	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Acetone	27 J	NA	68 J	NA	19 J	NA	11 UJ	NA	16 J	NA	16 J	NA	82 J	NA	120 J	NA	10 U	NA
Benzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Bromodichloromethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Bromoform	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Bromomethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Carbon disulfide	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Carbon tetrachloride	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Chlorobenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Chloroethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Chloroform	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Chloromethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Cyclohexane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Dibromochloromethane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Dichlorodifluoromethane (Freon-12)	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Ethylbenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Isopropylbenzene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Methyl acetate	12 U	NA	46 J	NA	26	NA	8 J	NA	36	NA	10 J	NA	140 J	NA	90 J	NA	10 U	NA
Methyl-tert-butyl ether (MTBE)	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Methylcyclohexane	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Methylene chloride	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Styrene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Tetrachloroethene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Toluene	12 U	NA	6 J	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
Trichloroethene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Trichlorofluoromethane(Freon-11)	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Vinyl chloride	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
Xylene, total	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA
cis-1,2-Dichloroethene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
cis-1,3-Dichloropropene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
trans-1,2-Dichloroethene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 U	NA	10 U	NA
trans-1,3-Dichloropropene	12 U	NA	9 U	NA	10 U	NA	11 U	NA	12 U	NA	11 U	NA	12 UJ	NA	12 UJ	NA	10 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E04		MR04-E05		MR04-E06		MR04-E07		MR04-E08		MR04-E09		MR04-E10		MR04-E11		MR04-E12	
Sample ID	MR04-E04-07D	MR04-E04-0-1-07D	MR04-E05-07D	MR04-E05-0-1-07D	MR04-E06-07D	MR04-E06-0-1-07D	MR04-E07-07D	MR04-E07-0-1-07D	MR04-E08-07D	MR04-E08-0-1-07D	MR04-E09-07D	MR04-E09-0-1-07D	MR04-E10-07D	MR04-E10-0-1-07D	MR04-E11-07D	MR04-E11-0-1-07D	MR04-E12-07D	MR04-E12-0-1-07D
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,1,2,2-Tetrachloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,1,2-Trichloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,1-Dichloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,1-Dichloroethene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2,4-Trichlorobenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2-Dibromo-3-chloropropane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2-Dibromoethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2-Dichlorobenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2-Dichloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,2-Dichloropropane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,3-Dichlorobenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
1,4-Dichlorobenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
2-Butanone	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	6.4 J	NA	9.8 J	NA	14 J	NA	11 R	NA
2-Hexanone	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 UJ	NA	11 R	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44 R	NA
4-Methyl-2-pentanone	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Acetone	30	NA	17 U	NA	55 J	NA	15 UJ	NA	51 J	NA	45 J	NA	590 J	NA	180 J	NA	11 R	NA
Benzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Bromodichloromethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Bromoform	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Bromomethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Carbon disulfide	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Carbon tetrachloride	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Chlorobenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Chloroethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Chloroform	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Chloromethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Cyclohexane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Dibromochloromethane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Dichlorodifluoromethane (Freon-12)	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Ethylbenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Isopropylbenzene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Methyl acetate	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	200	NA	160	NA	11 R	NA
Methyl-tert-butyl ether (MTBE)	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Methylcyclohexane	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Methylene chloride	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Styrene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Tetrachloroethene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Toluene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	6.4 J	NA	11 R	NA
Trichloroethene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Trichlorofluoromethane(Freon-11)	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Vinyl chloride	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
Xylene, total	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
cis-1,2-Dichloroethene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
cis-1,3-Dichloropropene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
trans-1,2-Dichloroethene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA
trans-1,3-Dichloropropene	12 U	NA	17 U	NA	15 U	NA	15 U	NA	13 U	NA	11 U	NA	15 U	NA	12 U	NA	11 R	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E13		MR04-E14		MR04-E15		MR04-E16		MR04-E17		MR04-E18		MR04-E19		MR04-E20		MR04-E21	
Sample ID	MR04-E13-07D	MR04-E13-0-1-07D	MR04-E14-07C	MR04-E14-0-1-07C	MR04-E15-07C	MR04-E15-0-1-07C	MR04-E16-07C	MR04-E16-0-1-07C	MR04-E17-07C	MR04-E17-0-1-07C	MR04-E18-07C	MR04-E18-0-1-07C	MR04-E19-07C	MR04-E19-0-1-07C	MR04-E20-07C	MR04-E20-0-1-07C	MR04-E21-07C	MR04-E21-0-1-07C
Sample Date	10/21/07	10/21/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,1,2,2-Tetrachloroethane	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,1,2-Trichloroethane	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,1-Dichloroethane	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,1-Dichloroethene	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,2,4-Trichlorobenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,2-Dibromo-3-chloropropane	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,2-Dibromoethane	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,2-Dichlorobenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,2-Dichloroethane	17 U	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,2-Dichloropropane	17 U	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
1,3-Dichlorobenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
1,4-Dichlorobenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
2-Butanone	14 J	NA	8 J	NA	11 U	NA	14 J	NA	12 U	NA	10 U	NA	10 U	NA	13 J	NA	9 UJ	NA
2-Hexanone	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Acetone	170 J	NA	120 J	NA	89 J	NA	96 J	NA	110 J	NA	24	NA	27 J	NA	36	NA	30 J	NA
Benzene	17 U	NA	15 UJ	NA	11 U	NA	4 J	NA	12 U	NA	10 U	NA	10 U	NA	5 J	NA	9 UJ	NA
Bromodichloromethane	17 U	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Bromoform	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Bromomethane	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Carbon disulfide	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	5 J	NA	9 UJ	NA
Carbon tetrachloride	17 U	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Chlorobenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Chloroethane	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Chloroform	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Chloromethane	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Cyclohexane	17 UJ	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Dibromochloromethane	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Dichlorodifluoromethane (Freon-12)	17 UJ	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Ethylbenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Isopropylbenzene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Methyl acetate	17 UJ	NA	37 J	NA	360 J	NA	26 J	NA	55 J	NA	10 U	NA	16 J	NA	19	NA	9 UJ	NA
Methyl-tert-butyl ether (MTBE)	17 UJ	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Methylcyclohexane	17 UJ	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	4 J	NA	9 UJ	NA
Methylene chloride	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Styrene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Tetrachloroethene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
Toluene	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	3 J	NA	9 UJ	NA
Trichloroethene	17	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Trichlorofluoromethane(Freon-11)	17 UJ	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Vinyl chloride	17 U	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
Xylene, total	17 UJ	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA
cis-1,2-Dichloroethene	17 UJ	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
cis-1,3-Dichloropropene	17 U	NA	15 UJ	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
trans-1,2-Dichloroethene	17 UJ	NA	15 U	NA	11 U	NA	12 U	NA	12 U	NA	10 U	NA	10 U	NA	13 U	NA	9 UJ	NA
trans-1,3-Dichloropropene	17 U	NA	15 UJ	NA	11 UJ	NA	12 U	NA	12 UJ	NA	10 U	NA	10 UJ	NA	13 U	NA	9 UJ	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E22				MR04-E23		MR04-E24		MR04-F01		MR04-F02		MR04-F03		MR04-F04		MR04-F05	
Sample ID	MR04-E22D-07C	MR04-E22D-0-1-07C	MR04-E22-07C	MR04-E22-0-1-07C	MR04-E23-07C	MR04-E23-0-1-07C	MR04-E24-07D	MR04-E24-0-1-07D	MR04-F01-07C	MR04-F01-0-1-07C	MR04-F02-07C	MR04-F02-0-1-07C	MR04-F03-07C	MR04-F03-0-1-07C	MR04-F04-07D	MR04-F04-0-1-07D	MR04-F05-07D	MR04-F05-0-1-07D
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	10/21/07	10/21/07	09/05/07	09/05/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,1,2,2-Tetrachloroethane	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,1,2-Trichloroethane	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,1-Dichloroethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,1-Dichloroethene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,2,4-Trichlorobenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,2-Dibromo-3-chloropropane	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,2-Dibromoethane	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,2-Dichlorobenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,2-Dichloroethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,2-Dichloropropane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
1,3-Dichlorobenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
1,4-Dichlorobenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
2-Butanone	12 U	NA	11 U	NA	11 U	NA	6.6 J	NA	9 J	NA	15 U	NA	13 UJ	NA	21 U	NA	15 U	NA
2-Hexanone	12 U	NA	11 U	NA	11 UJ	NA	10 UJ	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Acetone	12 UJ	NA	14 J	NA	35 J	NA	230 J	NA	97 J	NA	120 J	NA	58 J	NA	22 J	NA	15 U	NA
Benzene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Bromodichloromethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Bromoform	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Bromomethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Carbon disulfide	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Carbon tetrachloride	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Chlorobenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Chloroethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Chloroform	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Chloromethane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Cyclohexane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Dibromochloromethane	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Dichlorodifluoromethane (Freon-12)	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Ethylbenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Isopropylbenzene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Methyl acetate	12 U	NA	11 U	NA	45 J	NA	10 U	NA	44 J	NA	270 J	NA	30 J	NA	21 U	NA	15 U	NA
Methyl-tert-butyl ether (MTBE)	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Methylcyclohexane	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Methylene chloride	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Styrene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	5.5 J	NA	15 U	NA
Tetrachloroethene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
Toluene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	2 J	NA	3 J	NA	2 J	NA	21 U	NA	15 U	NA
Trichloroethene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Trichlorofluoromethane(Freon-11)	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Vinyl chloride	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
Xylene, total	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA
cis-1,2-Dichloroethene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
cis-1,3-Dichloropropene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
trans-1,2-Dichloroethene	12 U	NA	11 U	NA	11 U	NA	10 U	NA	17 UJ	NA	15 U	NA	13 U	NA	21 U	NA	15 U	NA
trans-1,3-Dichloropropene	12 U	NA	11 U	NA	11 UJ	NA	10 U	NA	17 UJ	NA	15 UJ	NA	13 UJ	NA	21 U	NA	15 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F06		MR04-F07		MR04-F08		MR04-F09		MR04-F10		MR04-F11				MR04-F12		MR04-F13	
Sample ID	MR04-F06-07D	MR04-F06-0-1-07D	MR04-F07-07D	MR04-F07-0-1-07D	MR04-F08-07D	MR04-F08-0-1-07D	MR04-F09-07D	MR04-F09-0-1-07D	MR04-F10-07D	MR04-F10-0-1-07D	MR04-F11D-07D	MR04-F11D-0-1-07D	MR04-F11-07D	MR04-F11-0-1-07D	MR04-F12-0-1-07C	MR04-F12-07C	MR04-F13-07C	MR04-F13-0-1-07C
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,1,2,2-Tetrachloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,1,2-Trichloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,1-Dichloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,1-Dichloroethene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2,4-Trichlorobenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2-Dibromo-3-chloropropane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2-Dibromoethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2-Dichlorobenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2-Dichloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,2-Dichloropropane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,3-Dichlorobenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
1,4-Dichlorobenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
2-Butanone	11 U	NA	14 U	NA	18 U	NA	12 U	NA	7.2 J	NA	15 J	NA	270 J	NA	NA	13 J	16 UJ	NA
2-Hexanone	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 UJ	NA	15 UJ	NA	530 U	NA	NA	16 U	16 UJ	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Acetone	11 UJ	NA	24 J	NA	18 UJ	NA	98 J	NA	210 J	NA	370 J	NA	5,300 J	NA	NA	220 J	48 J	NA
Benzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Bromodichloromethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Bromoform	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Bromomethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 UJ	16 UJ	NA
Carbon disulfide	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Carbon tetrachloride	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Chlorobenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Chloroethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Chloroform	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Chloromethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Cyclohexane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Dibromochloromethane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Dichlorodifluoromethane (Freon-12)	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Ethylbenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Isopropylbenzene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Methyl acetate	11 U	NA	14 U	NA	5.5 J	NA	12 U	NA	100	NA	62	NA	3,200	NA	NA	16 U	220 J	NA
Methyl-tert-butyl ether (MTBE)	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Methylcyclohexane	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Methylene chloride	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Styrene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Tetrachloroethene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Toluene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	1.8 J	NA	530 U	NA	NA	16 U	16 UJ	NA
Trichloroethene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Trichlorofluoromethane(Freon-11)	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Vinyl chloride	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
Xylene, total	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
cis-1,2-Dichloroethene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
cis-1,3-Dichloropropene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
trans-1,2-Dichloroethene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA
trans-1,3-Dichloropropene	11 U	NA	14 U	NA	18 U	NA	12 U	NA	10 U	NA	15 U	NA	530 U	NA	NA	16 U	16 UJ	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F14		MR04-F15		MR04-F16		MR04-F17		MR04-F18		MR04-F19		MR04-F20		MR04-F21	
Sample ID	MR04-F14-07C	MR04-F14-0-1-07C	MR04-F15-07C	MR04-F15-0-1-07C	MR04-F16-07C	MR04-F16-0-1-07C	MR04-F17-07C	MR04-F17-0-1-07C	MR04-F18-0-1-07C	MR04-F18-07C	MR04-F19-07C	MR04-F19-0-1-07C	MR04-F20-07C	MR04-F20-0-1-07C	MR04-F21-07C	MR04-F21-0-1-07C
Sample Date	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																
Volatile Organic Compounds (UG_KG)																
1,1,1-Trichloroethane	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,1,2,2-Tetrachloroethane	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,1,2-Trichloroethane	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,1-Dichloroethane	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,1-Dichloroethene	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2,4-Trichlorobenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2-Dibromo-3-chloropropane	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2-Dibromoethane	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2-Dichlorobenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2-Dichloroethane	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,2-Dichloropropane	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,3-Dichlorobenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
1,4-Dichlorobenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
2-Butanone	15 J	NA	4 J	NA	4 J	NA	10 J	NA	NA	8 J	4 J	NA	12 UJ	NA	9 UJ	NA
2-Hexanone	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
4-Bromofluorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Acetone	66 J	NA	42 J	NA	27 J	NA	120 J	NA	NA	86 J	160 J	NA	73 J	NA	270 J	NA
Benzene	8 J	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Bromodichloromethane	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Bromoform	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Bromomethane	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Carbon disulfide	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Carbon tetrachloride	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Chlorobenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Chloroethane	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Chloroform	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Chloromethane	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Cyclohexane	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Dibromochloromethane	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Dichlorodifluoromethane (Freon-12)	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Ethylbenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Isopropylbenzene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Methyl acetate	35 J	NA	110 J	NA	100 J	NA	140 J	NA	NA	65 J	400 J	NA	160 J	NA	2,500 J	NA
Methyl-tert-butyl ether (MTBE)	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Methylcyclohexane	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Methylene chloride	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Styrene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Tetrachloroethene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Toluene	10 J	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Trichloroethene	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Trichlorofluoromethane(Freon-11)	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Vinyl chloride	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
Xylene, total	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
cis-1,2-Dichloroethene	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
cis-1,3-Dichloropropene	14 UJ	NA	13 U	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
trans-1,2-Dichloroethene	14 U	NA	13 U	NA	14 U	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA
trans-1,3-Dichloropropene	14 UJ	NA	13 UJ	NA	14 UJ	NA	11 UJ	NA	NA	11 UJ	10 UJ	NA	12 UJ	NA	9 UJ	NA

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D07		MR04-D08		MR04-D09		MR04-D10		MR04-D11		MR04-D12		MR04-D13		MR04-D14	
Sample ID	MR04-D07-07D	MR04-D07-0-1-07D	MR04-D08-07D	MR04-D08-0-1-07D	MR04-D09-07D	MR04-D09-0-1-07D	MR04-D10-07D	MR04-D10-0-1-07D	MR04-D11-07D	MR04-D11-0-1-07D	MR04-D12-07C	MR04-D12-0-1-07C	MR04-D13-07D	MR04-D13-0-1-07D	MR04-D14-07D	MR04-D14-0-1-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																
Semi-volatile Organic Compounds (UG_KG)																
1,1-Biphenyl	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2,2'-Oxybis(1-chloropropane)	NA	390 UJ	NA	460 UJ	NA	450 UJ	NA	470 UJ	NA	360 UJ	NA	380 U	NA	360 U	NA	400 U
2,4,5-Trichlorophenol	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
2,4,6-Trichlorophenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2,4-Dichlorophenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2,4-Dimethylphenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2,4-Dinitrophenol	NA	990 UJ	NA	1,200 UJ	NA	1,100 UJ	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
2,4-Dinitrotoluene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2,6-Dinitrotoluene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2-Chloronaphthalene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2-Chlorophenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2-Methylnaphthalene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2-Methylphenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
2-Nitroaniline	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
2-Nitrophenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
3,3'-Dichlorobenzidine	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
3-Nitroaniline	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
4,6-Dinitro-2-methylphenol	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
4-Bromophenyl-phenylether	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
4-Chloro-3-methylphenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
4-Chloroaniline	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
4-Chlorophenyl-phenylether	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
4-Methylphenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
4-Nitroaniline	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
4-Nitrophenol	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
Acenaphthene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Acenaphthylene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Acetophenone	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	17 J	NA	380 U	NA	26 J	NA	31 J
Anthracene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Atrazine	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Benzaldehyde	NA	390 U	NA	460 U	NA	450 U	NA	40 J	NA	27 J	NA	380 U	NA	43 J	NA	400 U
Benzo(a)anthracene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	18 J	NA	48 J
Benzo(a)pyrene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	94 J
Benzo(b)fluoranthene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	110 J
Benzo(g,h,i)perylene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	99 J
Benzo(k)fluoranthene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	81 J
Butylbenzylphthalate	NA	390 U	NA	460 U	NA	450 U	NA	49 J	NA	24 J	NA	380 U	NA	39 J	NA	68 J
Caprolactam	NA	390 U	NA	460 U	NA	450 U	NA	220 J	NA	170 J	NA	380 U	NA	360 U	NA	400 U
Carbazole	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Chrysene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	34 J	NA	120 J
Di-n-butylphthalate	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Di-n-octylphthalate	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Dibenz(a,h)anthracene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Dibenzofuran	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Diethylphthalate	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Dimethyl phthalate	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Fluoranthene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	59 J	NA	160 J
Fluorene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Hexachlorobenzene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Hexachlorobutadiene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Hexachlorocyclopentadiene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Hexachloroethane	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Indeno(1,2,3-cd)pyrene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	76 J
Isophorone	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Naphthalene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Nitrobenzene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Pentachlorophenol	NA	990 U	NA	1,200 U	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	900 U	NA	1,000 U
Phenanthrene	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	41 J
Phenol	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
Pyrene	NA	390 UJ	NA	460 UJ	NA	450 UJ	NA	470 U	NA	360 U	NA	380 U	NA	55 J	NA	170 J
bis(2-Chloroethoxy)methane	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
bis(2-Chloroethyl)ether	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
bis(2-Ethylhexyl)phthalate	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	37 J	NA	360 U	NA	510
n-Nitroso-di-n-propylamine	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U
n-Nitrosodiphenylamine	NA	390 U	NA	460 U	NA	450 U	NA	470 U	NA	360 U	NA	380 U	NA	360 U	NA	400 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D15				MR04-D16		MR04-D17		MR04-D18		MR04-D19		MR04-E01		MR04-E02		MR04-E03	
Sample ID	MR04-D15D-07C	MR04-D15D-0-1-07C	MR04-D15-07C	MR04-D15-0-1-07C	MR04-D16-07C	MR04-D16-0-1-07C	MR04-D17-07C	MR04-D17-0-1-07C	MR04-D18-07C	MR04-D18-0-1-07C	MR04-D19-07C	MR04-D19-0-1-07C	MR04-E01-07C	MR04-E01-0-1-07C	MR04-E02-07C	MR04-E02-0-1-07C	MR04-E03-07D	MR04-E03-0-1-07D
Sample Date	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2,2'-Oxybis(1-chloropropane)	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 UJ
2,4,5-Trichlorophenol	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
2,4,6-Trichlorophenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2,4-Dichlorophenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2,4-Dimethylphenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2,4-Dinitrophenol	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
2,4-Dinitrotoluene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2,6-Dinitrotoluene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2-Chloronaphthalene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2-Chlorophenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2-Methylnaphthalene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2-Methylphenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
2-Nitroaniline	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
2-Nitrophenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
3,3'-Dichlorobenzidine	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
3-Nitroaniline	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
4,6-Dinitro-2-methylphenol	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
4-Bromophenyl-phenylether	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
4-Chloro-3-methylphenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
4-Chloroaniline	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
4-Chlorophenyl-phenylether	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
4-Methylphenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
4-Nitroaniline	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
4-Nitrophenol	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
Acenaphthene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	40 J	NA	410 U	NA	390 U	NA	18 J
Acenaphthylene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Acetophenone	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Anthracene	NA	380 U	NA	370 U	NA	390 U	NA	60 J	NA	390 U	NA	54 J	NA	410 U	NA	390 U	NA	370 U
Atrazine	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Benzaldehyde	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 UJ
Benzo(a)anthracene	NA	380 U	NA	370 U	NA	390 U	NA	740	NA	56 J	NA	170 J	NA	410 U	NA	390 U	NA	63 J
Benzo(a)pyrene	NA	380 U	NA	370 U	NA	390 U	NA	900	NA	78 J	NA	150 J	NA	410 U	NA	390 U	NA	52 J
Benzo(b)fluoranthene	NA	380 U	NA	370 U	NA	390 U	NA	1,100	NA	110 J	NA	230 J	NA	410 U	NA	390 U	NA	58 J
Benzo(g,h,i)perylene	NA	380 U	NA	370 U	NA	390 U	NA	560	NA	49 J	NA	71 J	NA	410 U	NA	390 U	NA	36 J
Benzo(k)fluoranthene	NA	380 U	NA	370 U	NA	390 U	NA	1,000	NA	83 J	NA	150 J	NA	410 U	NA	390 U	NA	49 J
Butylbenzylphthalate	NA	380 U	NA	370 U	NA	390 U	NA	20 J	NA	390 U	NA	400 U	NA	23 J	NA	390 U	NA	370 U
Caprolactam	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Carbazole	NA	380 U	NA	370 U	NA	390 U	NA	63 J	NA	390 U	NA	34 J	NA	410 U	NA	390 U	NA	370 U
Chrysene	NA	380 U	NA	370 U	NA	390 U	NA	1,100	NA	89 J	NA	200 J	NA	410 U	NA	390 U	NA	68 J
Di-n-butylphthalate	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	27 J	NA	390 U	NA	370 U
Di-n-octylphthalate	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Dibenz(a,h)anthracene	NA	380 U	NA	370 U	NA	390 U	NA	130 J	NA	390 U	NA	20 J	NA	410 U	NA	390 U	NA	370 U
Dibenzofuran	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Diethylphthalate	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Dimethyl phthalate	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Fluoranthene	NA	380 U	NA	370 U	NA	390 U	NA	2,100	NA	150 J	NA	460	NA	410 U	NA	390 U	NA	140 J
Fluorene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	27 J	NA	410 U	NA	390 U	NA	370 U
Hexachlorobenzene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Hexachlorobutadiene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Hexachlorocyclopentadiene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 UJ
Hexachloroethane	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Indeno(1,2,3-cd)pyrene	NA	380 U	NA	370 U	NA	390 U	NA	470	NA	43 J	NA	63 J	NA	410 U	NA	390 U	NA	30 J
Isophorone	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Naphthalene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Nitrobenzene	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Pentachlorophenol	NA	950 U	NA	930 U	NA	980 U	NA	1,000 U	NA	980 U	NA	1,000 U	NA	1,000 U	NA	990 U	NA	940 U
Phenanthrene	NA	380 U	NA	370 U	NA	390 U	NA	460	NA	32 J	NA	230 J	NA	410 U	NA	390 U	NA	83 J
Phenol	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
Pyrene	NA	380 U	NA	370 U	NA	390 U	NA	1,500 J	NA	110 J	NA	320 J	NA	410 U	NA	390 U	NA	120 J
bis(2-Chloroethoxy)methane	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
bis(2-Chloroethyl)ether	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
bis(2-Ethylhexyl)phthalate	NA	50 J	NA	18 J	NA	39 J	NA	93 J	NA	150 J	NA	58 J	NA	210 J	NA	83 J	NA	80 J
n-Nitroso-di-n-propylamine	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U
n-Nitrosodiphenylamine	NA	380 U	NA	370 U	NA	390 U	NA	410 U	NA	390 U	NA	400 U	NA	410 U	NA	390 U	NA	370 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E04		MR04-E05		MR04-E06		MR04-E07		MR04-E08		MR04-E09		MR04-E10		MR04-E11		MR04-E12	
Sample ID	MR04-E04-07D	MR04-E04-0-1-07D	MR04-E05-07D	MR04-E05-0-1-07D	MR04-E06-07D	MR04-E06-0-1-07D	MR04-E07-07D	MR04-E07-0-1-07D	MR04-E08-07D	MR04-E08-0-1-07D	MR04-E09-07D	MR04-E09-0-1-07D	MR04-E10-07D	MR04-E10-0-1-07D	MR04-E11-07D	MR04-E11-0-1-07D	MR04-E12-07D	MR04-E12-0-1-07D
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2,2'-Oxybis(1-chloropropane)	NA	430 UJ	NA	480 UJ	NA	360 UJ	NA	380 UJ	NA	450 U	NA	360 U	NA	410 UJ	NA	360 UJ	NA	370 UJ
2,4,5-Trichlorophenol	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
2,4,6-Trichlorophenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2,4-Dichlorophenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2,4-Dimethylphenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2,4-Dinitrophenol	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 UJ	NA	910 UJ	NA	1,000 UJ	NA	910 UJ	NA	930 U
2,4-Dinitrotoluene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2,6-Dinitrotoluene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2-Chloronaphthalene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2-Chlorophenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2-Methylnaphthalene	NA	430 U	NA	480 U	NA	21 J	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2-Methylphenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
2-Nitroaniline	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
2-Nitrophenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
3,3'-Dichlorobenzidine	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
3-Nitroaniline	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
4,6-Dinitro-2-methylphenol	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
4-Bromophenyl-phenylether	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
4-Chloro-3-methylphenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
4-Chloroaniline	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
4-Chlorophenyl-phenylether	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
4-Methylphenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
4-Nitroaniline	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
4-Nitrophenol	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
Acenaphthene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Acenaphthylene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Acetophenone	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	30 J	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Anthracene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Atrazine	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Benzaldehyde	NA	430 UJ	NA	480 UJ	NA	360 UJ	NA	380 UJ	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	19 J
Benzo(a)anthracene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Benzo(a)pyrene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	18 J	NA	370 U
Benzo(b)fluoranthene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	19 J	NA	410 U	NA	36 J	NA	370 U
Benzo(g,h,i)perylene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Benzo(k)fluoranthene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	31 J	NA	370 U
Butylbenzylphthalate	NA	65 J	NA	480 U	NA	17 J	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	30 J
Caprolactam	NA	60 J	NA	73 J	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	110 J	NA	360 U	NA	370 U
Carbazole	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Chrysene	NA	430 U	NA	480 U	NA	360 U	NA	21 J	NA	450 U	NA	18 J	NA	410 U	NA	27 J	NA	370 U
Di-n-butylphthalate	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	28 J	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Di-n-octylphthalate	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Dibenz(a,h)anthracene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Dibenzofuran	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Diethylphthalate	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Dimethyl phthalate	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Fluoranthene	NA	430 U	NA	25 J	NA	360 U	NA	35 J	NA	450 U	NA	37 J	NA	410 U	NA	360 U	NA	370 U
Fluorene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Hexachlorobenzene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Hexachlorobutadiene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Hexachlorocyclopentadiene	NA	430 UJ	NA	480 UJ	NA	360 UJ	NA	380 UJ	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Hexachloroethane	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Indeno(1,2,3-cd)pyrene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Isophorone	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Naphthalene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Nitrobenzene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Pentachlorophenol	NA	1,100 U	NA	1,200 U	NA	900 U	NA	950 U	NA	1,100 U	NA	910 U	NA	1,000 U	NA	910 U	NA	930 U
Phenanthrene	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	21 J	NA	410 U	NA	360 U	NA	370 U
Phenol	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
Pyrene	NA	430 U	NA	480 U	NA	360 U	NA	24 J	NA	450 U	NA	24 J	NA	410 UJ	NA	20 J	NA	370 U
bis(2-Chloroethoxy)methane	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
bis(2-Chloroethyl)ether	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
bis(2-Ethylhexyl)phthalate	NA	850	NA	130 J	NA	84 J	NA	3,600	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
n-Nitroso-di-n-propylamine	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U
n-Nitrosodiphenylamine	NA	430 U	NA	480 U	NA	360 U	NA	380 U	NA	450 U	NA	360 U	NA	410 U	NA	360 U	NA	370 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E13		MR04-E14		MR04-E15		MR04-E16		MR04-E17		MR04-E18		MR04-E19		MR04-E20		MR04-E21	
Sample ID	MR04-E13-07D	MR04-E13-0-1-07D	MR04-E14-07C	MR04-E14-0-1-07C	MR04-E15-07C	MR04-E15-0-1-07C	MR04-E16-07C	MR04-E16-0-1-07C	MR04-E17-07C	MR04-E17-0-1-07C	MR04-E18-07C	MR04-E18-0-1-07C	MR04-E19-07C	MR04-E19-0-1-07C	MR04-E20-07C	MR04-E20-0-1-07C	MR04-E21-07C	MR04-E21-0-1-07C
Sample Date	10/21/07	10/21/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,2'-Oxybis(1-chloropropane)	NA	360 UJ	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,4,5-Trichlorophenol	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
2,4,6-Trichlorophenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,4-Dichlorophenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,4-Dimethylphenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,4-Dinitrophenol	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
2,4-Dinitrotoluene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2,6-Dinitrotoluene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2-Chloronaphthalene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2-Chlorophenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2-Methylnaphthalene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2-Methylphenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
2-Nitroaniline	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
2-Nitrophenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
3,3'-Dichlorobenzidine	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
3-Nitroaniline	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
4,6-Dinitro-2-methylphenol	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
4-Bromophenyl-phenylether	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
4-Chloro-3-methylphenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
4-Chloroaniline	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
4-Chlorophenyl-phenylether	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
4-Methylphenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
4-Nitroaniline	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
4-Nitrophenol	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
Acenaphthene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	51 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Acenaphthylene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Acetophenone	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Anthracene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	240 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Atrazine	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Benzaldehyde	NA	21 J	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Benzo(a)anthracene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	2,800	NA	90 J	NA	80 J	NA	92 J	NA	350 U
Benzo(a)pyrene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	3,600	NA	110 J	NA	99 J	NA	110 J	NA	350 U
Benzo(b)fluoranthene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	5,200	NA	180 J	NA	160 J	NA	160 J	NA	350 U
Benzo(g,h,i)perylene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	1,900	NA	82 J	NA	69 J	NA	72 J	NA	350 U
Benzo(k)fluoranthene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	3,100	NA	110 J	NA	90 J	NA	100 J	NA	350 U
Butylbenzylphthalate	NA	34 J	NA	470 U	NA	360 U	NA	420 U	NA	22 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Caprolactam	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Carbazole	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	230 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Chrysene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	4,300	NA	150 J	NA	130 J	NA	140 J	NA	350 U
Di-n-butylphthalate	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Di-n-octylphthalate	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Dibenz(a,h)anthracene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	550	NA	19 J	NA	420 U	NA	430 U	NA	350 U
Dibenzofuran	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	27 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Diethylphthalate	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Dimethyl phthalate	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Fluoranthene	NA	360 U	NA	470 U	NA	17 J	NA	420 U	NA	8,100	NA	270 J	NA	220 J	NA	260 J	NA	350 U
Fluorene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	70 J	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Hexachlorobenzene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Hexachlorobutadiene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Hexachlorocyclopentadiene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Hexachloroethane	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Indeno(1,2,3-cd)pyrene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	1,800	NA	72 J	NA	61 J	NA	64 J	NA	350 U
Isophorone	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Naphthalene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Nitrobenzene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Pentachlorophenol	NA	910 U	NA	1,200 U	NA	900 U	NA	1,100 U	NA	1,100 U	NA	1,000 U	NA	1,100 U	NA	1,100 U	NA	880 U
Phenanthrene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	2,000	NA	76 J	NA	57 J	NA	84 J	NA	350 U
Phenol	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
Pyrene	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	5,300	NA	190 J	NA	160 J	NA	190 J	NA	350 U
bis(2-Chloroethoxy)methane	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
bis(2-Chloroethyl)ether	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
bis(2-Ethylhexyl)phthalate	NA	360 U	NA	36 J	NA	33 J	NA	64 J	NA	150 J	NA	37 J	NA	74 J	NA	42 J	NA	39 J
n-Nitroso-di-n-propylamine	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U
n-Nitrosodiphenylamine	NA	360 U	NA	470 U	NA	360 U	NA	420 U	NA	430 U	NA	400 U	NA	420 U	NA	430 U	NA	350 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E22				MR04-E23		MR04-E24		MR04-F01		MR04-F02		MR04-F03		MR04-F04		MR04-F05	
Sample ID	MR04-E22D-07C	MR04-E22D-0-1-07C	MR04-E22-07C	MR04-E22-0-1-07C	MR04-E23-07C	MR04-E23-0-1-07C	MR04-E24-07D	MR04-E24-0-1-07D	MR04-F01-07C	MR04-F01-0-1-07C	MR04-F02-07C	MR04-F02-0-1-07C	MR04-F03-07C	MR04-F03-0-1-07C	MR04-F04-07D	MR04-F04-0-1-07D	MR04-F05-07D	MR04-F05-0-1-07D
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	10/21/07	10/21/07	09/05/07	09/05/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2,2'-Oxybis(1-chloropropane)	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 UJ	NA	450 UJ
2,4,5-Trichlorophenol	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
2,4,6-Trichlorophenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2,4-Dichlorophenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2,4-Dimethylphenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2,4-Dinitrophenol	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
2,4-Dinitrotoluene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2,6-Dinitrotoluene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2-Chloronaphthalene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2-Chlorophenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2-Methylnaphthalene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2-Methylphenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
2-Nitroaniline	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
2-Nitrophenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
3,3'-Dichlorobenzidine	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
3-Nitroaniline	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
4,6-Dinitro-2-methylphenol	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
4-Bromophenyl-phenylether	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
4-Chloro-3-methylphenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
4-Chloroaniline	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
4-Chlorophenyl-phenylether	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
4-Methylphenol	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
4-Nitroaniline	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
4-Nitrophenol	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
Acenaphthene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	37 J	NA	450 U
Acenaphthylene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Acetophenone	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Anthracene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	39 J	NA	450 U
Atrazine	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Benzaldehyde	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 UJ	NA	450 UJ
Benzo(a)anthracene	NA	62 J	NA	34 J	NA	120 J	NA	350 U	NA	430 U	NA	380 U	NA	39 J	NA	160 J	NA	450 U
Benzo(a)pyrene	NA	81 J	NA	45 J	NA	130 J	NA	350 U	NA	430 U	NA	380 U	NA	36 J	NA	130 J	NA	450 U
Benzo(b)fluoranthene	NA	120 J	NA	59 J	NA	250 J	NA	350 U	NA	430 U	NA	30 J	NA	39 J	NA	170 J	NA	450 U
Benzo(g,h,i)perylene	NA	60 J	NA	33 J	NA	100 J	NA	350 U	NA	430 U	NA	380 U	NA	27 J	NA	93 J	NA	450 U
Benzo(k)fluoranthene	NA	88 J	NA	56 J	NA	140 J	NA	350 U	NA	430 U	NA	34 J	NA	48 J	NA	120 J	NA	450 U
Butylbenzylphthalate	NA	20 J	NA	390 U	NA	380 U	NA	24 J	NA	430 U	NA	380 U	NA	28 J	NA	530 U	NA	450 U
Caprolactam	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	81 J	NA	450 U
Carbazole	NA	400 U	NA	390 U	NA	17 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	26 J	NA	450 U
Chrysene	NA	110 J	NA	56 J	NA	180 J	NA	350 U	NA	29 J	NA	63 J	NA	48 J	NA	180 J	NA	450 U
Di-n-butylphthalate	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	110 J	NA	410 U	NA	530 U	NA	450 U
Di-n-octylphthalate	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Dibenz(a,h)anthracene	NA	400 U	NA	390 U	NA	22 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	27 J	NA	450 U
Dibenzofuran	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Diethylphthalate	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Dimethyl phthalate	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Fluoranthene	NA	200 J	NA	110 J	NA	410	NA	350 U	NA	430 U	NA	150 J	NA	92 J	NA	340 J	NA	450 U
Fluorene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Hexachlorobenzene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Hexachlorobutadiene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Hexachlorocyclopentadiene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 UJ	NA	450 UJ
Hexachloroethane	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Indeno(1,2,3-cd)pyrene	NA	51 J	NA	26 J	NA	84 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	97 J	NA	450 U
Isophorone	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Naphthalene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Nitrobenzene	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Pentachlorophenol	NA	1,000 U	NA	990 U	NA	940 U	NA	880 U	NA	1,100 U	NA	960 U	NA	1,000 U	NA	1,300 U	NA	1,100 U
Phenanthrene	NA	46 J	NA	29 J	NA	100 J	NA	350 U	NA	430 U	NA	380 U	NA	46 J	NA	180 J	NA	450 U
Phenol	NA	400 U	NA	18 J	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
Pyrene	NA	120 J	NA	70 J	NA	250 J	NA	350 U	NA	430 U	NA	100 J	NA	68 J	NA	280 J	NA	450 U
bis(2-Chloroethoxy)methane	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
bis(2-Chloroethyl)ether	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
bis(2-Ethylhexyl)phthalate	NA	40 J	NA	39 J	NA	62 J	NA	350 U	NA	150 J	NA	470	NA	350 J	NA	130 J	NA	240 J
n-Nitroso-di-n-propylamine	NA	400 U	NA	390 U	NA	380 U	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U
n-Nitrosodiphenylamine	NA	400 U	NA	390 U	NA	70 J	NA	350 U	NA	430 U	NA	380 U	NA	410 U	NA	530 U	NA	450 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F06		MR04-F07		MR04-F08		MR04-F09		MR04-F10		MR04-F11				MR04-F12		MR04-F13	
Sample ID	MR04-F06-07D	MR04-F06-0-1-07D	MR04-F07-07D	MR04-F07-0-1-07D	MR04-F08-07D	MR04-F08-0-1-07D	MR04-F09-07D	MR04-F09-0-1-07D	MR04-F10-07D	MR04-F10-0-1-07D	MR04-F11D-07D	MR04-F11D-0-1-07D	MR04-F11-07D	MR04-F11-0-1-07D	MR04-F12-0-1-07C	MR04-F12-07C	MR04-F13-07C	MR04-F13-0-1-07C
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2,2'-Oxybis(1-chloropropane)	NA	380 UJ	NA	400 UJ	NA	430 UJ	NA	400 UJ	NA	370 UJ	NA	360 UJ	NA	350 UJ	460 U	NA	NA	450 U
2,4,5-Trichlorophenol	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	460 U	NA	NA	1,100 U
2,4,6-Trichlorophenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2,4-Dichlorophenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2,4-Dimethylphenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2,4-Dinitrophenol	NA	960 U	NA	1,000 U	NA	1,100 UJ	NA	1,000 UJ	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
2,4-Dinitrotoluene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2,6-Dinitrotoluene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2-Chloronaphthalene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2-Chlorophenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2-Methylnaphthalene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2-Methylphenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
2-Nitroaniline	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
2-Nitrophenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
3,3'-Dichlorobenzidine	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
3-Nitroaniline	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
4,6-Dinitro-2-methylphenol	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
4-Bromophenyl-phenylether	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
4-Chloro-3-methylphenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
4-Chloroaniline	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	910 U	NA	NA	450 U
4-Chlorophenyl-phenylether	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
4-Methylphenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
4-Nitroaniline	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
4-Nitrophenol	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
Acenaphthene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Acenaphthylene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Acetophenone	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Anthracene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Atrazine	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Benzaldehyde	NA	380 UJ	NA	400 UJ	NA	430 U	NA	400 U	NA	370 UJ	NA	17 J	NA	350 UJ	460 U	NA	NA	450 U
Benzo(a)anthracene	NA	380 U	NA	400 U	NA	430 U	NA	60 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Benzo(a)pyrene	NA	380 U	NA	400 U	NA	430 U	NA	160 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Benzo(b)fluoranthene	NA	380 U	NA	400 U	NA	430 U	NA	220 J	NA	19 J	NA	360 U	NA	350 U	460 U	NA	NA	23 J
Benzo(g,h,i)perylene	NA	380 U	NA	400 U	NA	430 U	NA	120 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Benzo(k)fluoranthene	NA	380 U	NA	400 U	NA	430 U	NA	240 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Butylbenzylphthalate	NA	19 J	NA	400 U	NA	33 J	NA	400 U	NA	25 J	NA	69 J	NA	61 J	460 U	NA	NA	450 U
Caprolactam	NA	380 U	NA	170 J	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Carbazole	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Chrysene	NA	380 U	NA	400 U	NA	430 U	NA	110 J	NA	17 J	NA	360 U	NA	350 U	460 U	NA	NA	22 J
Di-n-butylphthalate	NA	380 U	NA	400 U	NA	430 U	NA	25 J	NA	370 U	NA	360 U	NA	350 U	24 J	NA	NA	450 U
Di-n-octylphthalate	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Dibenz(a,h)anthracene	NA	380 U	NA	400 U	NA	430 U	NA	29 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Dibenzofuran	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Diethylphthalate	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Dimethyl phthalate	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Fluoranthene	NA	380 U	NA	400 U	NA	430 U	NA	72 J	NA	27 J	NA	360 U	NA	350 U	460 U	NA	NA	33 J
Fluorene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Hexachlorobenzene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Hexachlorobutadiene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Hexachlorocyclopentadiene	NA	380 UJ	NA	400 UJ	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Hexachloroethane	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Indeno(1,2,3-cd)pyrene	NA	380 U	NA	400 U	NA	430 U	NA	130 J	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Isophorone	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Naphthalene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Nitrobenzene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Pentachlorophenol	NA	960 U	NA	1,000 U	NA	1,100 U	NA	1,000 U	NA	930 U	NA	890 U	NA	880 U	2,400 U	NA	NA	1,100 U
Phenanthrene	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Phenol	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
Pyrene	NA	380 U	NA	400 U	NA	430 UJ	NA	86 J	NA	23 J	NA	360 U	NA	350 U	460 U	NA	NA	27 J
bis(2-Chloroethoxy)methane	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
bis(2-Chloroethyl)ether	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
bis(2-Ethylhexyl)phthalate	NA	180 J	NA	110 J	NA	350 J	NA	270 J	NA	370 U	NA	360 U	NA	350 U	150 J	NA	NA	46 J
n-Nitroso-di-n-propylamine	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U
n-Nitrosodiphenylamine	NA	380 U	NA	400 U	NA	430 U	NA	400 U	NA	370 U	NA	360 U	NA	350 U	460 U	NA	NA	450 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F14		MR04-F15		MR04-F16		MR04-F17		MR04-F18		MR04-F19		MR04-F20		MR04-F21	
Sample ID	MR04-F14-07C	MR04-F14-0-1-07C	MR04-F15-07C	MR04-F15-0-1-07C	MR04-F16-07C	MR04-F16-0-1-07C	MR04-F17-07C	MR04-F17-0-1-07C	MR04-F18-0-1-07C	MR04-F18-07C	MR04-F19-07C	MR04-F19-0-1-07C	MR04-F20-07C	MR04-F20-0-1-07C	MR04-F21-07C	MR04-F21-0-1-07C
Sample Date	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																
Semi-volatile Organic Compounds (UG_KG)																
1,1-Biphenyl	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,2'-Oxybis(1-chloropropane)	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,4,5-Trichlorophenol	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
2,4,6-Trichlorophenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,4-Dichlorophenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,4-Dimethylphenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,4-Dinitrophenol	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
2,4-Dinitrotoluene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2,6-Dinitrotoluene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2-Chloronaphthalene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2-Chlorophenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2-Methylnaphthalene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2-Methylphenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
2-Nitroaniline	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
2-Nitrophenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
3,3'-Dichlorobenzidine	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
3-Nitroaniline	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
4,6-Dinitro-2-methylphenol	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
4-Bromophenyl-phenylether	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
4-Chloro-3-methylphenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
4-Chloroaniline	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
4-Chlorophenyl-phenylether	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
4-Methylphenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
4-Nitroaniline	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
4-Nitrophenol	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
Acenaphthene	NA	450 U	NA	450 U	NA	21 J	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Acenaphthylene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Acetophenone	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Anthracene	NA	450 U	NA	450 U	NA	90 J	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Atrazine	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Benzaldehyde	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Benzo(a)anthracene	NA	24 J	NA	28 J	NA	850	NA	150 J	130 J	NA	NA	33 J	NA	410 U	NA	53 J
Benzo(a)pyrene	NA	24 J	NA	51 J	NA	1,000	NA	210 J	180 J	NA	NA	45 J	NA	410 U	NA	66 J
Benzo(b)fluoranthene	NA	47 J	NA	88 J	NA	1,300	NA	240 J	220 J	NA	NA	57 J	NA	410 U	NA	80 J
Benzo(g,h,i)perylene	NA	450 U	NA	39 J	NA	600	NA	190 J	190 J	NA	NA	41 J	NA	410 U	NA	71 J
Benzo(k)fluoranthene	NA	30 J	NA	75 J	NA	1,000	NA	230 J	210 J	NA	NA	41 J	NA	410 U	NA	78 J
Butylbenzylphthalate	NA	450 U	NA	26 J	NA	460 U	NA	18 J	28 J	NA	NA	41 J	NA	22 J	NA	20 J
Caprolactam	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Carbazole	NA	450 U	NA	450 U	NA	130 J	NA	21 J	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Chrysene	NA	41 J	NA	63 J	NA	1,300	NA	240 J	210 J	NA	NA	56 J	NA	410 U	NA	87 J
Di-n-butylphthalate	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Di-n-octylphthalate	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Dibenz(a,h)anthracene	NA	450 U	NA	450 U	NA	150 J	NA	36 J	40 J	NA	NA	390 U	NA	410 U	NA	17 J
Dibenzofuran	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Diethylphthalate	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Dimethyl phthalate	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Fluoranthene	NA	58 J	NA	86 J	NA	2,800	NA	410	350 J	NA	NA	78 J	NA	410 U	NA	120 J
Fluorene	NA	450 U	NA	450 U	NA	30 J	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Hexachlorobenzene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Hexachlorobutadiene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Hexachlorocyclopentadiene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Hexachloroethane	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Indeno(1,2,3-cd)pyrene	NA	450 U	NA	34 J	NA	520	NA	160 J	150 J	NA	NA	35 J	NA	410 U	NA	60 J
Isophorone	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Naphthalene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Nitrobenzene	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Pentachlorophenol	NA	1,100 U	NA	1,100 U	NA	1,200 U	NA	1,000 U	1,000 U	NA	NA	990 U	NA	1,000 U	NA	910 U
Phenanthrene	NA	450 U	NA	450 U	NA	960	NA	120 J	110 J	NA	NA	18 J	NA	410 U	NA	33 J
Phenol	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
Pyrene	NA	55 J	NA	63 J	NA	1,600	NA	360 J	300 J	NA	NA	81 J	NA	410 U	NA	120 J
bis(2-Chloroethoxy)methane	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
bis(2-Chloroethyl)ether	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
bis(2-Ethylhexyl)phthalate	NA	67 J	NA	62 J	NA	71 J	NA	120 J	200 J	NA	NA	84 J	NA	150 J	NA	110 J
n-Nitroso-di-n-propylamine	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U
n-Nitrosodiphenylamine	NA	450 U	NA	450 U	NA	460 U	NA	400 U	410 U	NA	NA	390 U	NA	410 U	NA	360 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D07		MR04-D08		MR04-D09		MR04-D10		MR04-D11		MR04-D12		MR04-D13		MR04-D14	
Sample ID	MR04-D07-07D	MR04-D07-0-1-07D	MR04-D08-07D	MR04-D08-0-1-07D	MR04-D09-07D	MR04-D09-0-1-07D	MR04-D10-07D	MR04-D10-0-1-07D	MR04-D11-07D	MR04-D11-0-1-07D	MR04-D12-07C	MR04-D12-0-1-07C	MR04-D13-07D	MR04-D13-0-1-07D	MR04-D14-07D	MR04-D14-0-1-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	17	NA	3.8 U	NA	3.6 U	NA	4 U
4,4'-DDE	NA	25	NA	21	NA	3.4 J	NA	9.4	NA	36	NA	20	NA	13	NA	83
4,4'-DDT	NA	35	NA	16 J	NA	3.6 J	NA	14	NA	670	NA	11	NA	6	NA	15
Aldrin	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
Aroclor-1016	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Aroclor-1221	NA	80 U	NA	93 U	NA	91 U	NA	96 U	NA	150 U	NA	77 U	NA	73 U	NA	81 U
Aroclor-1232	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Aroclor-1242	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Aroclor-1248	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Aroclor-1254	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Aroclor-1260	NA	39 U	NA	46 U	NA	45 U	NA	47 U	NA	72 U	NA	38 U	NA	36 U	NA	40 U
Dieldrin	NA	3.1 J	NA	5.5 J	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	10
Endosulfan I	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
Endosulfan II	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U
Endosulfan sulfate	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U
Endrin	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U
Endrin aldehyde	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U
Endrin ketone	NA	3.9 U	NA	4.6 U	NA	4.5 U	NA	4.7 U	NA	7.2 U	NA	3.8 U	NA	3.6 U	NA	4 U
Heptachlor	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
Heptachlor epoxide	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
Methoxychlor	NA	20 U	NA	24 U	NA	23 U	NA	24 U	NA	37 U	NA	20 U	NA	18 U	NA	20 U
Toxaphene	NA	200 U	NA	240 U	NA	230 U	NA	240 U	NA	370 U	NA	200 U	NA	180 U	NA	200 U
alpha-BHC	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
alpha-Chlordane	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
beta-BHC	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
delta-BHC	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
gamma-BHC (Lindane)	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
gamma-Chlordane	NA	2 U	NA	2.4 U	NA	2.3 U	NA	2.4 U	NA	3.7 U	NA	2 U	NA	1.8 U	NA	2 U
Explosives (UG_KG)																
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 UJ	NA	120 UJ	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D15				MR04-D16		MR04-D17		MR04-D18		MR04-D19		MR04-E01		MR04-E02		MR04-E03	
Sample ID	MR04-D15D-07C	MR04-D15D-0-1-07C	MR04-D15-07C	MR04-D15-0-1-07C	MR04-D16-07C	MR04-D16-0-1-07C	MR04-D17-07C	MR04-D17-0-1-07C	MR04-D18-07C	MR04-D18-0-1-07C	MR04-D19-07C	MR04-D19-0-1-07C	MR04-E01-07C	MR04-E01-0-1-07C	MR04-E02-07C	MR04-E02-0-1-07C	MR04-E03-07D	MR04-E03-0-1-07D
Sample Date	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	NA	3.8 U	NA	3.7 U	NA	3.7 J	NA	3.2 J	NA	4	NA	4 U	NA	3.5 J	NA	3.9 U	NA	3.7 U
4,4'-DDE	NA	48	NA	35	NA	6.6	NA	8 J	NA	39	NA	9.6 J	NA	93	NA	110	NA	35
4,4'-DDT	NA	8.4	NA	6.6	NA	94	NA	11 J	NA	63	NA	11	NA	25	NA	50	NA	17
Aldrin	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
Aroclor-1016	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Aroclor-1221	NA	77 U	NA	75 U	NA	79 U	NA	83 U	NA	79 U	NA	82 U	NA	83 U	NA	80 U	NA	76 U
Aroclor-1232	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Aroclor-1242	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Aroclor-1248	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Aroclor-1254	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Aroclor-1260	NA	38 U	NA	37 U	NA	39 U	NA	41 U	NA	39 U	NA	40 U	NA	41 U	NA	39 U	NA	37 U
Dieldrin	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	96	NA	4.3	NA	3.9
Endosulfan I	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
Endosulfan II	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U
Endosulfan sulfate	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U
Endrin	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U
Endrin aldehyde	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U
Endrin ketone	NA	3.8 U	NA	3.7 U	NA	3.9 U	NA	4.1 U	NA	3.9 U	NA	4 U	NA	4.1 U	NA	3.9 U	NA	3.7 U
Heptachlor	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
Heptachlor epoxide	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
Methoxychlor	NA	20 U	NA	19 U	NA	20 U	NA	21 U	NA	20 U	NA	21 U	NA	21 U	NA	20 U	NA	19 U
Toxaphene	NA	200 U	NA	190 U	NA	200 U	NA	210 U	NA	200 U	NA	210 U	NA	210 U	NA	200 U	NA	190 U
alpha-BHC	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
alpha-Chlordane	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
beta-BHC	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
delta-BHC	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
gamma-BHC (Lindane)	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
gamma-Chlordane	NA	2 U	NA	1.9 U	NA	2 U	NA	2.1 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	1.9 U
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E04		MR04-E05		MR04-E06		MR04-E07		MR04-E08		MR04-E09		MR04-E10		MR04-E11		MR04-E12	
Sample ID	MR04-E04-07D	MR04-E04-0-1-07D	MR04-E05-07D	MR04-E05-0-1-07D	MR04-E06-07D	MR04-E06-0-1-07D	MR04-E07-07D	MR04-E07-0-1-07D	MR04-E08-07D	MR04-E08-0-1-07D	MR04-E09-07D	MR04-E09-0-1-07D	MR04-E10-07D	MR04-E10-0-1-07D	MR04-E11-07D	MR04-E11-0-1-07D	MR04-E12-07D	MR04-E12-0-1-07D
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	NA	2.7 J	NA	2.4 J	NA	9.1	NA	2.5 J	NA	2.5 J	NA	4.2	NA	4.1 U	NA	5.1	NA	3.7 U
4,4'-DDE	NA	39	NA	73	NA	40	NA	37 J	NA	94	NA	25	NA	8.6	NA	57	NA	4.4
4,4'-DDT	NA	21	NA	18	NA	84	NA	17 J	NA	63	NA	24	NA	6.6	NA	52	NA	2.7 J
Aldrin	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
Aroclor-1016	NA	43 U	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	36 U	NA	37 U
Aroclor-1221	NA	88 U	NA	97 U	NA	73 U	NA	77 U	NA	91 U	NA	74 U	NA	83 U	NA	74 U	NA	75 U
Aroclor-1232	NA	43 U	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	36 U	NA	37 U
Aroclor-1242	NA	43 U	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	36 U	NA	37 U
Aroclor-1248	NA	43 U	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	36 U	NA	37 U
Aroclor-1254	NA	43 U	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	36 U	NA	37 U
Aroclor-1260	NA	34 J	NA	48 U	NA	36 U	NA	38 U	NA	45 U	NA	36 U	NA	41 U	NA	29 J	NA	37 U
Dieldrin	NA	14	NA	4.8 U	NA	17	NA	20 J	NA	8.2	NA	9.9	NA	4 J	NA	5.2	NA	3.7 U
Endosulfan I	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
Endosulfan II	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	3.6 U	NA	4.1 U	NA	3.6 U	NA	3.7 U
Endosulfan sulfate	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	3.6 U	NA	4.1 U	NA	3.6 U	NA	3.7 U
Endrin	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	52	NA	4.1 U	NA	2.3 J	NA	3.7 U
Endrin aldehyde	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	3.7 U
Endrin ketone	NA	4.3 U	NA	4.8 U	NA	3.6 U	NA	3.8 U	NA	4.5 U	NA	3.6 U	NA	4.1 U	NA	3.6 U	NA	3.7 U
Heptachlor	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
Heptachlor epoxide	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
Methoxychlor	NA	22 U	NA	25 U	NA	18 U	NA	20 U	NA	23 U	NA	19 U	NA	21 U	NA	19 U	NA	19 U
Toxaphene	NA	220 U	NA	250 U	NA	180 U	NA	200 U	NA	230 U	NA	190 U	NA	210 U	NA	190 U	NA	190 U
alpha-BHC	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
alpha-Chlordane	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	5.9 J	NA	2.1 U	NA	1.9 U	NA	1.9 U
beta-BHC	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
delta-BHC	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
gamma-BHC (Lindane)	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	1.9 U	NA	2.1 U	NA	1.9 U	NA	1.9 U
gamma-Chlordane	NA	2.2 U	NA	2.5 U	NA	1.8 U	NA	2 U	NA	2.3 U	NA	3.3	NA	2.1 U	NA	1.9 U	NA	1.9 U
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E13		MR04-E14		MR04-E15		MR04-E16		MR04-E17		MR04-E18		MR04-E19		MR04-E20		MR04-E21	
Sample ID	MR04-E13-07D	MR04-E13-0-1-07D	MR04-E14-07C	MR04-E14-0-1-07C	MR04-E15-07C	MR04-E15-0-1-07C	MR04-E16-07C	MR04-E16-0-1-07C	MR04-E17-07C	MR04-E17-0-1-07C	MR04-E18-07C	MR04-E18-0-1-07C	MR04-E19-07C	MR04-E19-0-1-07C	MR04-E20-07C	MR04-E20-0-1-07C	MR04-E21-07C	MR04-E21-0-1-07C
Sample Date	10/21/07	10/21/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	NA	3.6 U	NA	4.7 U	NA	5.2	NA	4.2 U	NA	20	NA	2.9 J	NA	4.2 U	NA	6	NA	2.4 J
4,4'-DDE	NA	2.8 J	NA	4.7 U	NA	96	NA	4.5	NA	120	NA	10 J	NA	4.2 U	NA	21 J	NA	24
4,4'-DDT	NA	3.6 U	NA	4.7 U	NA	110	NA	3 J	NA	180	NA	89	NA	2.9 J	NA	24	NA	21
Aldrin	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
Aroclor-1016	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Aroclor-1221	NA	74 U	NA	94 U	NA	73 U	NA	86 U	NA	87 U	NA	81 U	NA	86 U	NA	87 U	NA	71 U
Aroclor-1232	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Aroclor-1242	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Aroclor-1248	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Aroclor-1254	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Aroclor-1260	NA	36 U	NA	47 U	NA	36 U	NA	42 U	NA	43 U	NA	40 U	NA	42 U	NA	43 U	NA	35 U
Dieldrin	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Endosulfan I	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
Endosulfan II	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Endosulfan sulfate	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Endrin	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Endrin aldehyde	NA	3.6 U	NA	4.7 U	NA	2.1 J	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Endrin ketone	NA	3.6 U	NA	4.7 U	NA	3.6 U	NA	4.2 U	NA	4.3 U	NA	4 U	NA	4.2 U	NA	4.3 U	NA	3.5 U
Heptachlor	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
Heptachlor epoxide	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
Methoxychlor	NA	19 U	NA	24 U	NA	19 U	NA	22 U	NA	22 U	NA	21 U	NA	22 U	NA	22 U	NA	18 U
Toxaphene	NA	190 U	NA	240 U	NA	190 U	NA	220 U	NA	220 U	NA	210 U	NA	220 U	NA	220 U	NA	180 U
alpha-BHC	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
alpha-Chlordane	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
beta-BHC	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	1.5 J	NA	1.8 U
delta-BHC	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
gamma-BHC (Lindane)	NA	1.9 U	NA	2.4 U	NA	1.9 U	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
gamma-Chlordane	NA	1.9 U	NA	2.4 U	NA	1.5 J	NA	2.2 U	NA	2.2 U	NA	2.1 U	NA	2.2 U	NA	2.2 U	NA	1.8 U
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E22				MR04-E23		MR04-E24		MR04-F01		MR04-F02		MR04-F03		MR04-F04		MR04-F05	
Sample ID	MR04-E22D-07C	MR04-E22D-0-1-07C	MR04-E22-07C	MR04-E22-0-1-07C	MR04-E23-07C	MR04-E23-0-1-07C	MR04-E24-07D	MR04-E24-0-1-07D	MR04-F01-07C	MR04-F01-0-1-07C	MR04-F02-07C	MR04-F02-0-1-07C	MR04-F03-07C	MR04-F03-0-1-07C	MR04-F04-07D	MR04-F04-0-1-07D	MR04-F05-07D	MR04-F05-0-1-07D
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	10/21/07	10/21/07	09/05/07	09/05/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	NA	4 J	NA	3.6 J	NA	3.7 U	NA	2.8 J	NA	4 J	NA	3.8 U	NA	4.1 U	NA	4.2 J	NA	4.5 U
4,4'-DDE	NA	22	NA	20	NA	10 J	NA	35	NA	23	NA	13	NA	9.2	NA	31 J	NA	37
4,4'-DDT	NA	40	NA	51	NA	14	NA	76	NA	12	NA	9.8	NA	9.4	NA	20	NA	35
Aldrin	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	3	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
Aroclor-1016	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	43 U	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Aroclor-1221	NA	82 U	NA	80 U	NA	76 U	NA	71 U	NA	88 U	NA	77 U	NA	84 U	NA	110 U	NA	91 U
Aroclor-1232	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	43 U	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Aroclor-1242	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	43 U	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Aroclor-1248	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	43 U	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Aroclor-1254	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	43 U	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Aroclor-1260	NA	40 U	NA	39 U	NA	37 U	NA	35 U	NA	83 J	NA	38 U	NA	41 U	NA	53 U	NA	45 U
Dieldrin	NA	4 U	NA	3.9 U	NA	3.7 U	NA	15	NA	36	NA	3.6 J	NA	4.1 U	NA	5.3 U	NA	7.5
Endosulfan I	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
Endosulfan II	NA	4 U	NA	3.9 U	NA	3.7 U	NA	3.5 U	NA	4.3 U	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U
Endosulfan sulfate	NA	4 U	NA	3.9 U	NA	3.7 U	NA	3.5 U	NA	4.3 U	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U
Endrin	NA	4 U	NA	3.9 U	NA	3.7 U	NA	3.5 U	NA	4.3 U	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U
Endrin aldehyde	NA	4 U	NA	3.9 U	NA	3.7 U	NA	4.1 U	NA	3.6 J	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U
Endrin ketone	NA	4 U	NA	3.9 U	NA	3.7 U	NA	3.5 U	NA	4.3 U	NA	3.8 U	NA	4.1 U	NA	5.3 U	NA	4.5 U
Heptachlor	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
Heptachlor epoxide	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
Methoxychlor	NA	21 U	NA	20 U	NA	19 U	NA	18 U	NA	22 U	NA	20 U	NA	21 U	NA	27 U	NA	23 U
Toxaphene	NA	210 U	NA	200 U	NA	190 U	NA	180 U	NA	220 U	NA	200 U	NA	210 U	NA	270 U	NA	230 U
alpha-BHC	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
alpha-Chlordane	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	8.7 J	NA	2 U	NA	2.1 U	NA	2.7 U	NA	20 J
beta-BHC	NA	2.1 U	NA	2 U	NA	1.8 J	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
delta-BHC	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
gamma-BHC (Lindane)	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	2.2 U	NA	2 U	NA	2.1 U	NA	2.7 U	NA	2.3 U
gamma-Chlordane	NA	2.1 U	NA	2 U	NA	1.9 U	NA	1.8 U	NA	9.7	NA	2 U	NA	2.1 U	NA	2.7 U	NA	12
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F06		MR04-F07		MR04-F08		MR04-F09		MR04-F10		MR04-F11				MR04-F12		MR04-F13	
Sample ID	MR04-F06-07D	MR04-F06-0-1-07D	MR04-F07-07D	MR04-F07-0-1-07D	MR04-F08-07D	MR04-F08-0-1-07D	MR04-F09-07D	MR04-F09-0-1-07D	MR04-F10-07D	MR04-F10-0-1-07D	MR04-F11D-07D	MR04-F11D-0-1-07D	MR04-F11-07D	MR04-F11-0-1-07D	MR04-F12-0-1-07C	MR04-F12-07C	MR04-F13-07C	MR04-F13-0-1-07C
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	NA	2.2 J	NA	4 U	NA	4.3 U	NA	4 U	NA	1,000	NA	3.5 U	NA	3.5 U	16	NA	NA	4.5 U
4,4'-DDE	NA	33	NA	24	NA	23	NA	5.9	NA	20	NA	6.2	NA	6.7	5.8	NA	NA	13
4,4'-DDT	NA	19	NA	10	NA	22	NA	4.7	NA	15	NA	4.8	NA	4.1	5.4	NA	NA	6.3
Aldrin	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
Aroclor-1016	NA	38 U	NA	40 U	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Aroclor-1221	NA	78 U	NA	81 U	NA	87 U	NA	81 U	NA	150 U	NA	72 U	NA	71 U	94 U	NA	NA	90 U
Aroclor-1232	NA	38 U	NA	40 U	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Aroclor-1242	NA	38 U	NA	40 U	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Aroclor-1248	NA	38 U	NA	40 U	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Aroclor-1254	NA	38 U	NA	40 U	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Aroclor-1260	NA	38 U	NA	24 J	NA	43 U	NA	40 U	NA	74 U	NA	35 U	NA	35 U	46 U	NA	NA	45 U
Dieldrin	NA	6.6	NA	18	NA	7.4	NA	4 U	NA	7.4 U	NA	4.6	NA	5.2	1.9 J	NA	NA	2.4 J
Endosulfan I	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
Endosulfan II	NA	3.8 U	NA	4 U	NA	4.3 U	NA	4 U	NA	7.4 U	NA	3.5 U	NA	3.5 U	4.6 U	NA	NA	4.5 U
Endosulfan sulfate	NA	3.8 U	NA	4 U	NA	4.3 U	NA	4 U	NA	7.4 U	NA	3.5 U	NA	3.5 U	4.6 U	NA	NA	4.5 U
Endrin	NA	3.8 U	NA	4 U	NA	4.3 U	NA	4 U	NA	7.4 U	NA	3.5 U	NA	3.5 U	4.6 U	NA	NA	4.5 U
Endrin aldehyde	NA	3.8 U	NA	4 U	NA	2.4 J	NA	4 U	NA	7.4 U	NA	4.1 U	NA	4.7 U	4.6 U	NA	NA	4.5 U
Endrin ketone	NA	3.8 U	NA	4 U	NA	4.3 U	NA	4 U	NA	7.4 U	NA	3.5 U	NA	3.5 U	4.6 U	NA	NA	4.5 U
Heptachlor	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
Heptachlor epoxide	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
Methoxychlor	NA	20 U	NA	21 U	NA	22 U	NA	20 U	NA	38 U	NA	18 U	NA	18 U	24 U	NA	NA	23 U
Toxaphene	NA	200 U	NA	210 U	NA	220 U	NA	200 U	NA	380 U	NA	180 U	NA	180 U	240 U	NA	NA	230 U
alpha-BHC	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
alpha-Chlordane	NA	2 U	NA	2.1 U	NA	1.6 J	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
beta-BHC	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
delta-BHC	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
gamma-BHC (Lindane)	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
gamma-Chlordane	NA	2 U	NA	2.1 U	NA	2.3	NA	2 U	NA	3.8 U	NA	1.8 U	NA	1.8 U	2.4 U	NA	NA	2.3 U
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA	120 UJ	120 U	NA	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F14		MR04-F15		MR04-F16		MR04-F17		MR04-F18		MR04-F19		MR04-F20		MR04-F21	
Sample ID	MR04-F14-07C	MR04-F14-0-1-07C	MR04-F15-07C	MR04-F15-0-1-07C	MR04-F16-07C	MR04-F16-0-1-07C	MR04-F17-07C	MR04-F17-0-1-07C	MR04-F18-0-1-07C	MR04-F18-07C	MR04-F19-07C	MR04-F19-0-1-07C	MR04-F20-07C	MR04-F20-0-1-07C	MR04-F21-07C	MR04-F21-0-1-07C
Sample Date	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																
Pesticide/Polychlorinated Biphenyls (UG_KG)																
4,4'-DDD	NA	21	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	7.3	NA	4.1 U	NA	3.4 J
4,4'-DDE	NA	550	NA	22	NA	4.6 U	NA	3.8 J	4.1 J	NA	NA	46	NA	4.3	NA	16 J
4,4'-DDT	NA	290	NA	22	NA	2.8 J	NA	7.7	17	NA	NA	88	NA	6.5	NA	47
Aldrin	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
Aroclor-1016	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Aroclor-1221	NA	180 U	NA	90 U	NA	93 U	NA	81 U	84 U	NA	NA	80 U	NA	83 U	NA	74 U
Aroclor-1232	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Aroclor-1242	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Aroclor-1248	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Aroclor-1254	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Aroclor-1260	NA	89 U	NA	45 U	NA	46 U	NA	40 U	41 U	NA	NA	39 U	NA	41 U	NA	36 U
Dieldrin	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Endosulfan I	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
Endosulfan II	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Endosulfan sulfate	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Endrin	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Endrin aldehyde	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Endrin ketone	NA	8.9 U	NA	4.5 U	NA	4.6 U	NA	4 U	4.1 U	NA	NA	3.9 U	NA	4.1 U	NA	3.6 U
Heptachlor	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
Heptachlor epoxide	NA	3.2 J	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
Methoxychlor	NA	46 U	NA	23 U	NA	24 U	NA	20 U	21 U	NA	NA	20 U	NA	21 U	NA	19 U
Toxaphene	NA	460 U	NA	230 U	NA	240 U	NA	200 U	210 U	NA	NA	200 U	NA	210 U	NA	190 U
alpha-BHC	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
alpha-Chlordane	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
beta-BHC	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
delta-BHC	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
gamma-BHC (Lindane)	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
gamma-Chlordane	NA	4.6 U	NA	2.3 U	NA	2.4 U	NA	2 U	2.1 U	NA	NA	2 U	NA	2.1 U	NA	1.9 U
Explosives (UG_KG)																
1,3,5-Trinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
1,3-Dinitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
2,4,6-Trinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
2,4-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
2,6-Dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
2-Amino-4,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
2-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
3-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
4-Amino-2,6-dinitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
4-Nitrotoluene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
HMX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
Nitrobenzene	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
RDX	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U
Tetryl	NA	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	NA	NA	120 U	NA	120 U	NA	120 U

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D07		MR04-D08		MR04-D09		MR04-D10		MR04-D11		MR04-D12		MR04-D13		MR04-D14	
Sample ID	MR04-D07-07D	MR04-D07-0-1-07D	MR04-D08-07D	MR04-D08-0-1-07D	MR04-D09-07D	MR04-D09-0-1-07D	MR04-D10-07D	MR04-D10-0-1-07D	MR04-D11-07D	MR04-D11-0-1-07D	MR04-D12-07C	MR04-D12-0-1-07C	MR04-D13-07D	MR04-D13-0-1-07D	MR04-D14-07D	MR04-D14-0-1-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07	10/21/07	10/21/07	09/10/07	09/10/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																
Total Metals (MG_KG)																
Aluminum	NA	3,490	NA	3,460	NA	4,190	NA	8,660	NA	5,250	NA	6,330	NA	2,810	NA	4,960
Antimony	NA	5.3 U	NA	0.9 J	NA	6.1 U	NA	6.5 UJ	NA	4.9 UJ	NA	5.1 UJ	NA	5 UJ	NA	5.6 UJ
Arsenic	NA	1.4	NA	1	NA	1.1	NA	2.3	NA	1.4	NA	2.7	NA	1	NA	2.4
Barium	NA	17.2 J	NA	16.3 J	NA	23.5	NA	37	NA	17.5	NA	36.5	NA	8.3 J	NA	15.3 J
Beryllium	NA	0.06 J	NA	0.063 J	NA	0.094 J	NA	0.54 U	NA	0.41 U	NA	0.035 J	NA	0.41 U	NA	0.46 U
Cadmium	NA	0.44 U	NA	0.52 U	NA	0.51 U	NA	0.61	NA	0.15 J	NA	0.081 J	NA	0.058 J	NA	0.13 J
Calcium	NA	3,010	NA	1,310	NA	11,300	NA	20,800	NA	2,940	NA	3,590	NA	532	NA	2,580
Chromium	NA	4.4	NA	4.3	NA	3.9	NA	10	NA	4.7	NA	7.6 J	NA	3.2	NA	7
Cobalt	NA	0.21 J	NA	0.24 J	NA	0.19 J	NA	0.57 J	NA	0.29 J	NA	0.35 J	NA	0.17 J	NA	0.35 J
Copper	NA	2.7	NA	2.5 J	NA	1.9 J	NA	4.2	NA	3	NA	1.6 J	NA	1.7 J	NA	2.9
Cyanide	NA	2.8 U	NA	3.4 U	NA	3.3 U	NA	3.4 U	NA	2.2 U	NA	2.7 UJ	NA	2.4 U	NA	2.5 U
Iron	NA	2,100	NA	1,900	NA	1,980	NA	5,410 J	NA	2,630 J	NA	6,250	NA	2,130	NA	3,990
Lead	NA	74.9	NA	23.8	NA	16.5	NA	36.5	NA	26	NA	20.8 J	NA	16.8	NA	24.2
Magnesium	NA	228 J	NA	145 J	NA	300 J	NA	575	NA	228 J	NA	241 J	NA	97.8 J	NA	211 J
Manganese	NA	19	NA	12.5	NA	22.9	NA	23.3	NA	19.4	NA	9	NA	10.2	NA	19.3
Mercury	NA	0.054 J	NA	0.019 J	NA	0.11 U	NA	0.12 U	NA	0.029 J	NA	0.03 J	NA	0.014 J	NA	0.062 J
Nickel	NA	1.9 J	NA	1.3 J	NA	1.3 J	NA	2.6 J	NA	1.6 J	NA	3.4 U	NA	0.94 J	NA	1.6 J
Potassium	NA	114 J	NA	104 J	NA	117 J	NA	263 J	NA	151 J	NA	220 J	NA	111 J	NA	191 J
Selenium	NA	0.32 J	NA	0.34 J	NA	0.35 J	NA	3.8 U	NA	2.9 U	NA	3 U	NA	0.22 J	NA	3.2 U
Silver	NA	0.88 U	NA	1 U	NA	1 U	NA	1.1 UJ	NA	0.8 UJ	NA	0.86 U	NA	0.82 UJ	NA	0.93 UJ
Sodium	NA	21.3 J	NA	17.9 J	NA	36.3 J	NA	69.7 J	NA	21.5 J	NA	428 U	NA	10.9 J	NA	21.6 J
Thallium	NA	2.2 U	NA	2.6 U	NA	2.5 U	NA	2.7 U	NA	2.1 U	NA	2.1 U	NA	2.1 U	NA	2.3 U
Vanadium	NA	6.8	NA	5 J	NA	5.2	NA	13	NA	6.8	NA	11.8	NA	6.3	NA	11.3
Zinc	NA	41.9	NA	39.2	NA	51.9	NA	49.1 J	NA	31.3 J	NA	11.2	NA	10.1	NA	39.5
Wet Chemistry (MG_KG)																
Perchlorate	NA	0.0024 U	NA	0.0028 U	NA	0.0027 U	NA	0.0029 U	NA	0.0022 U	NA	0.0023 U	NA	0.0022 U	NA	0.0024 U

Notes:
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J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
R- Unreliable result
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D15				MR04-D16		MR04-D17		MR04-D18		MR04-D19		MR04-E01		MR04-E02		MR04-E03	
Sample ID	MR04-D15D-07C	MR04-D15D-0-1-07C	MR04-D15-07C	MR04-D15-0-1-07C	MR04-D16-07C	MR04-D16-0-1-07C	MR04-D17-07C	MR04-D17-0-1-07C	MR04-D18-07C	MR04-D18-0-1-07C	MR04-D19-07C	MR04-D19-0-1-07C	MR04-E01-07C	MR04-E01-0-1-07C	MR04-E02-07C	MR04-E02-0-1-07C	MR04-E03-07D	MR04-E03-0-1-07D
Sample Date	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/10/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	NA	5,700	NA	6,440	NA	5,750	NA	5,380	NA	3,370	NA	6,640	NA	8,650	NA	3,460	NA	3,270
Antimony	NA	0.27 J	NA	0.29 J	NA	0.29 J	NA	5.9 UJ	NA	0.4 J	NA	5.6 UJ	NA	5.6 UJ	NA	5.4 UJ	NA	5.2 UJ
Arsenic	NA	2.9 J	NA	3.4 J	NA	2.2 J	NA	8.5 J	NA	3.2 J	NA	2.9 J	NA	4.3 J	NA	2.3	NA	1.1
Barium	NA	15 J	NA	15 J	NA	14.1 J	NA	13.7 J	NA	10.2 J	NA	9.9 J	NA	19.7	NA	12.3 J	NA	17.8
Beryllium	NA	0.087 J	NA	0.091 J	NA	0.071 J	NA	0.069 J	NA	0.041 J	NA	0.071 J	NA	0.097 J	NA	0.036 J	NA	0.036 J
Cadmium	NA	0.1 J	NA	0.099 J	NA	0.052 J	NA	0.098 J	NA	0.078 J	NA	0.11 J	NA	0.32 J	NA	0.29 J	NA	0.27 J
Calcium	NA	3,200	NA	2,890	NA	4,350	NA	23,900	NA	1,570	NA	43,400	NA	7,800 J	NA	102,000	NA	1,210
Chromium	NA	7.8	NA	9.7	NA	6.8	NA	11.2	NA	5.8	NA	11.8	NA	12.6	NA	9.1 J	NA	4.7
Cobalt	NA	0.55 J	NA	0.51 J	NA	0.29 J	NA	0.32 J	NA	0.27 J	NA	0.37 J	NA	0.45 J	NA	0.26 J	NA	0.3 J
Copper	NA	1.9 J	NA	2.5 J	NA	1.8 J	NA	7.1 J	NA	5.5 J	NA	2.7 J	NA	3.8	NA	2.3	NA	4.2
Cyanide	NA	2.8 U	NA	2.5 U	NA	2.9 U	NA	2.8 U	NA	2.9 U	NA	3 U	NA	3 U	NA	2.9 UJ	NA	2.7 U
Iron	NA	5,230 J	NA	7,140 J	NA	4,370 J	NA	6,250 J	NA	3,090 J	NA	4,800 J	NA	7,030 J	NA	3,710	NA	2,890
Lead	NA	14.6	NA	12.1	NA	12	NA	11.9	NA	9.8	NA	41.6	NA	33.1	NA	16.9 J	NA	29.2 J
Magnesium	NA	203 J	NA	237 J	NA	248 J	NA	470 J	NA	150 J	NA	957	NA	404 J	NA	1,440	NA	145 J
Manganese	NA	10.6	NA	13.8	NA	8.6	NA	15.4	NA	12.4	NA	15.9	NA	11.9	NA	28.8	NA	14.8
Mercury	NA	0.027 J	NA	0.018 J	NA	0.024 J	NA	0.014 J	NA	0.017 J	NA	0.026 J	NA	0.046 J	NA	0.011 J	NA	0.056 J
Nickel	NA	1.9 J	NA	1.8 J	NA	1.5 J	NA	2 J	NA	1.4 J	NA	2.1 J	NA	2.3 J	NA	3.6 U	NA	1.4 J
Potassium	NA	158 J	NA	205 J	NA	164 J	NA	151 J	NA	123 J	NA	270 J	NA	404 J	NA	239 J	NA	122 J
Selenium	NA	2.8 U	NA	0.27 J	NA	2.9 U	NA	0.59 J	NA	3.3 U	NA	0.67 J	NA	0.5 J	NA	1.9 J	NA	3 U
Silver	NA	0.81 U	NA	0.86 U	NA	0.84 U	NA	0.99 U	NA	0.93 U	NA	0.93 U	NA	0.93 U	NA	0.9 U	NA	0.86 U
Sodium	NA	32 J	NA	32.6 J	NA	22.8 J	NA	68.1 J	NA	28.4 J	NA	98.8 J	NA	35.7 J	NA	452 U	NA	12.9 J
Thallium	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2.5 U	NA	2.3 U	NA	2.3 U	NA	2.3 U	NA	2.3 U	NA	2.2 U
Vanadium	NA	10.7 J	NA	13.6 J	NA	10.1 J	NA	16 J	NA	7.6 J	NA	14.7 J	NA	17.6	NA	8.5	NA	6.2
Zinc	NA	13.7	NA	16.8	NA	17.5	NA	33.8	NA	24.9	NA	12.8	NA	63.1	NA	21	NA	61.3
Wet Chemistry (MG_KG)																		
Perchlorate	NA	0.0023 U	NA	0.0022 U	NA	0.0024 U	NA	0.0049 U	NA	0.0024 U	NA	0.0024 U	NA	0.0024 U	NA	0.0024 U	NA	0.0023 U

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E04		MR04-E05		MR04-E06		MR04-E07		MR04-E08		MR04-E09		MR04-E10		MR04-E11		MR04-E12	
Sample ID	MR04-E04-07D	MR04-E04-0-1-07D	MR04-E05-07D	MR04-E05-0-1-07D	MR04-E06-07D	MR04-E06-0-1-07D	MR04-E07-07D	MR04-E07-0-1-07D	MR04-E08-07D	MR04-E08-0-1-07D	MR04-E09-07D	MR04-E09-0-1-07D	MR04-E10-07D	MR04-E10-0-1-07D	MR04-E11-07D	MR04-E11-0-1-07D	MR04-E12-07D	MR04-E12-0-1-07D
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07	10/21/07	10/21/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	NA	4,840	NA	4,940	NA	3,620	NA	4,400	NA	3,610	NA	3,280	NA	4,980	NA	4,590	NA	4,970
Antimony	NA	5.8 UJ	NA	6.4 UJ	NA	4.8 UJ	NA	5.2 UJ	NA	6 UJ	NA	5 UJ	NA	5.6 U	NA	0.78 J	NA	5.1 UJ
Arsenic	NA	1.5	NA	1.5	NA	1	NA	1.4	NA	1.4	NA	0.83	NA	1.6	NA	1.4	NA	2.1
Barium	NA	21.8	NA	42.3	NA	19.6	NA	24.1	NA	34.1	NA	31.3	NA	24	NA	47.4	NA	11.4 J
Beryllium	NA	0.054 J	NA	0.088 J	NA	0.062 J	NA	0.068 J	NA	0.075 J	NA	0.045 J	NA	0.067 J	NA	0.067 J	NA	0.42 U
Cadmium	NA	0.37 J	NA	0.24 J	NA	0.18 J	NA	0.38 J	NA	0.5 U	NA	0.42 U	NA	0.47 U	NA	0.4 U	NA	0.24 J
Calcium	NA	11,700	NA	8,350	NA	1,140	NA	8,170	NA	42,700	NA	2,420	NA	1,730	NA	6,470	NA	39,800
Chromium	NA	8.3	NA	7.5	NA	4.1	NA	5.9	NA	6.3	NA	4.6	NA	6.1	NA	6.1	NA	8.2
Cobalt	NA	0.39 J	NA	0.37 J	NA	0.23 J	NA	0.4 J	NA	0.32 J	NA	0.25 J	NA	0.22 J	NA	0.32 J	NA	0.29 J
Copper	NA	4	NA	9.1	NA	2.5	NA	4.5	NA	3.6	NA	4.8	NA	1.9 J	NA	4.3	NA	2.1
Cyanide	NA	2.7 U	NA	2.9 U	NA	2.6 U	NA	2.8 U	NA	3.2 U	NA	2.4 U	NA	2.8 U	NA	0.11 J	NA	2.7 U
Iron	NA	4,160	NA	3,560	NA	2,480	NA	3,080	NA	3,030	NA	2,230	NA	2,910	NA	3,040	NA	3,410 J
Lead	NA	43.1 J	NA	40.1 J	NA	45.2 J	NA	35.1 J	NA	48.4 J	NA	52.8 J	NA	29.4	NA	31.8	NA	18.2
Magnesium	NA	377 J	NA	318 J	NA	143 J	NA	284 J	NA	769	NA	155 J	NA	228 J	NA	264 J	NA	751
Manganese	NA	19.2	NA	22.8	NA	16.4	NA	19.8	NA	25.1	NA	16.1	NA	10.5	NA	16.3	NA	15.4
Mercury	NA	0.027 J	NA	0.061 J	NA	0.022 J	NA	0.031 J	NA	0.47 U	NA	0.036 J	NA	0.11 U	NA	0.1 U	NA	0.022 J
Nickel	NA	1.7 J	NA	2 J	NA	1.4 J	NA	2 J	NA	1.7 J	NA	1.2 J	NA	1.2 J	NA	1.3 J	NA	1.4 J
Potassium	NA	244 J	NA	235 J	NA	145 J	NA	166 J	NA	174 J	NA	133 J	NA	184 J	NA	156 J	NA	212 J
Selenium	NA	3.4 U	NA	3.7 U	NA	2.8 U	NA	3.1 U	NA	0.29 J	NA	2.9 U	NA	0.25 J	NA	0.31 J	NA	3 U
Silver	NA	0.96 U	NA	1.1 U	NA	0.81 U	NA	0.87 U	NA	1 U	NA	0.83 U	NA	0.94 U	NA	0.81 U	NA	0.86 UJ
Sodium	NA	61.2 J	NA	33.9 J	NA	14.3 J	NA	29.3 J	NA	60.2 J	NA	19.5 J	NA	24.6 J	NA	29.8 J	NA	82 J
Thallium	NA	2.4 U	NA	2.7 U	NA	2 U	NA	2.2 U	NA	2.5 U	NA	2.1 U	NA	2.3 U	NA	2 U	NA	2.1 U
Vanadium	NA	9.3	NA	9.9	NA	6.1	NA	7.5	NA	7.6	NA	5.6	NA	9	NA	7.8	NA	9.1
Zinc	NA	40.8	NA	56.1	NA	34	NA	80.2	NA	74	NA	78.1	NA	21.3	NA	59.8	NA	47.7 J
Wet Chemistry (MG_KG)																		
Perchlorate	NA	0.0026 U	NA	0.0029 U	NA	0.0022 U	NA	0.0023 U	NA	0.0027 U	NA	0.0022 U	NA	0.0025 U	NA	0.0022 U	NA	0.0022 U

Notes:
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Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E13		MR04-E14		MR04-E15		MR04-E16		MR04-E17		MR04-E18		MR04-E19		MR04-E20		MR04-E21	
Sample ID	MR04-E13-07D	MR04-E13-0-1-07D	MR04-E14-07C	MR04-E14-0-1-07C	MR04-E15-07C	MR04-E15-0-1-07C	MR04-E16-07C	MR04-E16-0-1-07C	MR04-E17-07C	MR04-E17-0-1-07C	MR04-E18-07C	MR04-E18-0-1-07C	MR04-E19-07C	MR04-E19-0-1-07C	MR04-E20-07C	MR04-E20-0-1-07C	MR04-E21-07C	MR04-E21-0-1-07C
Sample Date	10/21/07	10/21/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	NA	4,770	NA	4,040 J	NA	3,760 J	NA	3,880	NA	4,220	NA	4,790	NA	4,820	NA	5,330	NA	4,230
Antimony	NA	4.9 UJ	NA	6.3 UJ	NA	4.9 UJ	NA	5.9 UJ	NA	0.82 J	NA	5.7 UJ	NA	5.2 UJ	NA	5.6 UJ	NA	0.28 J
Arsenic	NA	1.6	NA	2	NA	1.1	NA	1.6 J	NA	2 J	NA	3.3 J	NA	4.6 J	NA	2.9 J	NA	1.7 J
Barium	NA	13.4 J	NA	14.7 J	NA	28.1	NA	350	NA	13.1 J	NA	11.2 J	NA	10.9 J	NA	13.5 J	NA	11.9 J
Beryllium	NA	0.41 U	NA	0.051 J	NA	0.057 J	NA	0.49 U	NA	0.065 J	NA	0.094 J	NA	0.066 J	NA	0.081 J	NA	0.069 J
Cadmium	NA	0.087 J	NA	0.53 U	NA	0.047 J	NA	0.11 J	NA	0.083 J	NA	0.25 J	NA	0.13 J	NA	0.15 J	NA	0.073 J
Calcium	NA	13,700	NA	2,120 J	NA	7,410 J	NA	23,500	NA	4,840	NA	31,200	NA	40,100	NA	5,350	NA	6,330
Chromium	NA	5.9	NA	4.6 J	NA	4 J	NA	5.1	NA	5.6	NA	11.2	NA	9.3	NA	8.8	NA	4.5
Cobalt	NA	0.3 J	NA	0.21 J	NA	0.17 J	NA	1.4 J	NA	0.38 J	NA	1.1 J	NA	0.49 J	NA	0.99 J	NA	0.21 J
Copper	NA	1.4 J	NA	1.5 J	NA	3.7	NA	2.6 J	NA	2.7 J	NA	2.1 J	NA	2.4 J	NA	1.8 J	NA	1.3 U
Cyanide	NA	2.5 U	NA	2.9 U	NA	2.7 U	NA	3 U	NA	3.2 U	NA	2.8 U	NA	3 U	NA	3.2 U	NA	2.4 U
Iron	NA	2,850 J	NA	2,780 J	NA	1,970 J	NA	2,500 J	NA	2,920 J	NA	3,590 J	NA	3,360 J	NA	3,620 J	NA	2,830 J
Lead	NA	12.4	NA	9.5	NA	32.4	NA	30.9	NA	17.9	NA	4.7	NA	5.3	NA	7	NA	10.1
Magnesium	NA	356 J	NA	158 J	NA	253 J	NA	400 J	NA	222 J	NA	654	NA	726	NA	253 J	NA	203 J
Manganese	NA	15.4	NA	12.6	NA	8.9	NA	15.4	NA	17.7	NA	11	NA	11.7	NA	13	NA	10
Mercury	NA	0.017 J	NA	0.02 J	NA	0.011 J	NA	0.037 J	NA	0.042 J	NA	0.018 J	NA	0.016 J	NA	0.024 J	NA	0.029 J
Nickel	NA	1.4 J	NA	1.3 J	NA	1.3 J	NA	3.2 J	NA	1.6 J	NA	2.5 J	NA	2 J	NA	2.4 J	NA	1.1 J
Potassium	NA	196 J	NA	138 J	NA	104 J	NA	102 J	NA	125 J	NA	185 J	NA	173 J	NA	165 J	NA	123 J
Selenium	NA	2.8 U	NA	3.7 U	NA	0.43 J	NA	0.36 J	NA	3.3 U	NA	0.89 J	NA	0.8 J	NA	3.3 U	NA	2.7 U
Silver	NA	0.84 UJ	NA	1.1 U	NA	0.82 U	NA	0.99 U	NA	0.93 U	NA	0.94 U	NA	0.86 U	NA	0.93 U	NA	0.76 U
Sodium	NA	40.1 J	NA	17.4 J	NA	34.3 J	NA	95.7 J	NA	39.6 J	NA	95.5 J	NA	118 J	NA	52.3 J	NA	25.2 J
Thallium	NA	2 U	NA	2.6 U	NA	2 U	NA	2.5 U	NA	2.3 U	NA	2.4 U	NA	2.2 U	NA	2.3 U	NA	1.9 U
Vanadium	NA	8.3	NA	6.7	NA	5.8	NA	7.4 J	NA	7.9 J	NA	10.9 J	NA	9.1 J	NA	9.4 J	NA	6.5 J
Zinc	NA	9.7 J	NA	8.6	NA	12.8	NA	16.6	NA	18.1	NA	21.5	NA	13.5	NA	19.7	NA	16.7
Wet Chemistry (MG_KG)																		
Perchlorate	NA	0.0022 U	NA	0.0028 U	NA	0.0043 U	NA	0.0026 U	NA	0.0052 U	NA	0.0024 U	NA	0.0026 U	NA	0.0026 U	NA	0.0021 U

Notes:
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NA- Not analyzed
R- Unreliable result
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-E22				MR04-E23		MR04-E24		MR04-F01		MR04-F02		MR04-F03		MR04-F04		MR04-F05	
Sample ID	MR04-E22D-07C	MR04-E22D-0-1-07C	MR04-E22-07C	MR04-E22-0-1-07C	MR04-E23-07C	MR04-E23-0-1-07C	MR04-E24-07D	MR04-E24-0-1-07D	MR04-F01-07C	MR04-F01-0-1-07C	MR04-F02-07C	MR04-F02-0-1-07C	MR04-F03-07C	MR04-F03-0-1-07C	MR04-F04-07D	MR04-F04-0-1-07D	MR04-F05-07D	MR04-F05-0-1-07D
Sample Date	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	10/21/07	10/21/07	09/05/07	09/05/07	09/05/07	09/05/07	09/10/07	09/10/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	NA	6,090	NA	5,160	NA	4,090	NA	2,760	NA	4,380	NA	3,360	NA	2,860	NA	4,580	NA	5,330
Antimony	NA	5.7 UJ	NA	0.3 J	NA	0.32 J	NA	4.8 UJ	NA	5.8 UJ	NA	0.28 J	NA	5.4 UJ	NA	7.3 UJ	NA	5.9 UJ
Arsenic	NA	3.6 J	NA	2.7 J	NA	1.8 J	NA	0.99	NA	2 J	NA	1.5 J	NA	1.4	NA	1.9	NA	2.4
Barium	NA	13.6 J	NA	11.5 J	NA	10.8 J	NA	11.5 J	NA	20.9	NA	21.2	NA	16.8 J	NA	64	NA	43.8
Beryllium	NA	0.087 J	NA	0.067 J	NA	0.054 J	NA	0.4 U	NA	0.05 J	NA	0.043 J	NA	0.45 U	NA	0.053 J	NA	0.07 J
Cadmium	NA	0.12 J	NA	0.11 J	NA	0.095 J	NA	0.035 J	NA	0.23 J	NA	0.31 J	NA	0.26 J	NA	0.32 J	NA	0.3 J
Calcium	NA	14,400	NA	5,910	NA	17,900	NA	1,240	NA	26,600 J	NA	21,900 J	NA	28,900	NA	38,100	NA	58,400
Chromium	NA	9	NA	7.3	NA	5.8	NA	3.3	NA	9	NA	5.5	NA	7.7 J	NA	10.6	NA	11.1
Cobalt	NA	0.59 J	NA	0.44 J	NA	0.26 J	NA	0.17 J	NA	0.61 J	NA	0.27 J	NA	0.35 J	NA	0.47 J	NA	0.7 J
Copper	NA	2.9 J	NA	2.1 J	NA	2.1 J	NA	0.85 J	NA	2.8	NA	2.8	NA	3.7	NA	5.9	NA	4.1
Cyanide	NA	2.9 U	NA	3 U	NA	2.5 U	NA	2.6 U	NA	3.1 U	NA	2.8 U	NA	3 UJ	NA	3.7 U	NA	2.9 U
Iron	NA	5,400 J	NA	3,680 J	NA	2,680 J	NA	1,670	NA	3,590 J	NA	3,480 J	NA	2,630	NA	3,920	NA	4,560
Lead	NA	10.9	NA	9	NA	9.5	NA	19.8	NA	13.2	NA	33.2	NA	60 J	NA	56.1 J	NA	50.2 J
Magnesium	NA	404 J	NA	241 J	NA	384 J	NA	115 J	NA	1,540	NA	480	NA	534	NA	712	NA	1,050
Manganese	NA	12.2	NA	10.8	NA	11.9	NA	9	NA	20.3	NA	17	NA	16.3	NA	35.9	NA	28.1
Mercury	NA	0.053	NA	0.023 J	NA	0.014 J	NA	0.022 J	NA	0.046 J	NA	0.042 J	NA	0.03 J	NA	0.03 J	NA	0.029 J
Nickel	NA	2 J	NA	3 J	NA	1.5 J	NA	0.8 J	NA	9.5	NA	1.6 J	NA	3.6 U	NA	2.4 J	NA	2.4 J
Potassium	NA	229 J	NA	194 J	NA	121 J	NA	75.1 J	NA	169 J	NA	130 U	NA	140 J	NA	223 J	NA	275 J
Selenium	NA	3.3 U	NA	3.3 U	NA	0.55 J	NA	2.8 U	NA	0.63 J	NA	0.43 J	NA	0.48 J	NA	4.2 U	NA	3.5 U
Silver	NA	0.94 U	NA	0.96 U	NA	0.88 U	NA	0.8 UJ	NA	0.97 U	NA	0.85 U	NA	0.9 U	NA	1.2 U	NA	0.99 U
Sodium	NA	44 J	NA	34 J	NA	45.8 J	NA	21.9 J	NA	58.5 J	NA	34.2 J	NA	450 U	NA	71 J	NA	129 J
Thallium	NA	2.4 U	NA	2.4 U	NA	2.2 U	NA	2 U	NA	2.4 U	NA	2.1 U	NA	2.3 U	NA	3 U	NA	2.5 U
Vanadium	NA	11.8 J	NA	8.7 J	NA	7.5 J	NA	4.9	NA	9.3	NA	6.8	NA	10.7	NA	12	NA	11.6
Zinc	NA	18	NA	19	NA	14.1	NA	5.4	NA	33.4	NA	69.8	NA	34.8	NA	64.3	NA	122
Wet Chemistry (MG_KG)																		
Perchlorate	NA	0.0024 U	NA	0.0024 U	NA	0.0023 U	NA	0.0028 U	NA	0.0052 U	NA	0.0023 U	NA	0.0025 U	NA	0.0032 U	NA	0.0027 U

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Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F06		MR04-F07		MR04-F08		MR04-F09		MR04-F10		MR04-F11				MR04-F12		MR04-F13	
Sample ID	MR04-F06-07D	MR04-F06-0-1-07D	MR04-F07-07D	MR04-F07-0-1-07D	MR04-F08-07D	MR04-F08-0-1-07D	MR04-F09-07D	MR04-F09-0-1-07D	MR04-F10-07D	MR04-F10-0-1-07D	MR04-F11D-07D	MR04-F11D-0-1-07D	MR04-F11-07D	MR04-F11-0-1-07D	MR04-F12-0-1-07C	MR04-F12-07C	MR04-F13-07C	MR04-F13-0-1-07C
Sample Date	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	09/06/07	09/06/07	09/06/07	09/06/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	NA	5,880	NA	4,290	NA	3,370	NA	4,960	NA	3,960	NA	3,140	NA	3,020	5,840	NA	NA	4,770
Antimony	NA	5.2 UJ	NA	5.3 UJ	NA	5.9 UJ	NA	5.5 UJ	NA	5.1 U	NA	4.6 U	NA	4.7 U	5.9 U	NA	NA	0.44 J
Arsenic	NA	1.7	NA	1.3	NA	1.2	NA	1.5	NA	1.5	NA	1.7	NA	1.8	1.7	NA	NA	1.9
Barium	NA	25.8	NA	234	NA	16.6 J	NA	15.5 J	NA	19.7	NA	12.1 J	NA	12.2 J	17.2 J	NA	NA	54.2
Beryllium	NA	0.063 J	NA	0.072 J	NA	0.035 J	NA	0.046 J	NA	0.42 U	NA	0.39 U	NA	0.4 U	0.49 U	NA	NA	0.052 J
Cadmium	NA	0.37 J	NA	0.38 J	NA	0.2 J	NA	0.15 J	NA	0.42 U	NA	0.49	NA	0.51	0.16 J	NA	NA	0.083 J
Calcium	NA	6,240	NA	1,550	NA	3,480	NA	2,600	NA	6,600	NA	99,800	NA	84,900	1,730 J	NA	NA	10,500
Chromium	NA	9.8	NA	8.5	NA	4.5	NA	6.2	NA	5.5	NA	10.5	NA	7.9	6.1	NA	NA	5.4
Cobalt	NA	0.42 J	NA	0.53 J	NA	0.2 J	NA	0.26 J	NA	0.22 J	NA	0.29 J	NA	0.32 J	5 U	NA	NA	0.29 J
Copper	NA	6	NA	5.6	NA	2.9	NA	2.5	NA	2.8	NA	4.2	NA	4.8	3.3	NA	NA	3.2
Cyanide	NA	2.9 U	NA	2.5 U	NA	2.6 U	NA	2.7 U	NA	2.7 U	NA	2.7 U	NA	2.2 U	3.4 U	NA	NA	3.1 U
Iron	NA	5,250	NA	3,590	NA	2,160	NA	3,750	NA	2,570	NA	2,670	NA	4,230	3,360 J	NA	NA	2,930
Lead	NA	56.7 J	NA	184 J	NA	45.1 J	NA	49 J	NA	15	NA	26	NA	30.6	34.9	NA	NA	26
Magnesium	NA	304 J	NA	193 J	NA	159 J	NA	220 J	NA	270 J	NA	1,500	NA	1,290	225 J	NA	NA	286 J
Manganese	NA	20.6	NA	37.1	NA	23.3	NA	16.8	NA	19.2	NA	29.3	NA	30.3	14.1	NA	NA	18
Mercury	NA	0.053 J	NA	0.021 J	NA	0.018 J	NA	0.034 J	NA	0.031 J	NA	0.11 U	NA	0.018 J	0.015 J	NA	NA	0.023 J
Nickel	NA	2.6 J	NA	2.2 J	NA	1.6 J	NA	1.5 J	NA	1.2 J	NA	3 J	NA	2.2 J	1.6 J	NA	NA	1.7 J
Potassium	NA	209 J	NA	152 J	NA	112 J	NA	158 J	NA	137 J	NA	228 J	NA	190 J	168 J	NA	NA	139 J
Selenium	NA	3 U	NA	3.1 U	NA	3.4 U	NA	3.2 U	NA	0.48 J	NA	0.38 J	NA	0.48 J	3.5 U	NA	NA	0.34 J
Silver	NA	0.86 U	NA	0.88 U	NA	0.98 U	NA	0.92 U	NA	0.85 U	NA	0.77 U	NA	0.79 U	0.99 U	NA	NA	1 U
Sodium	NA	36.2 J	NA	19.6 J	NA	21.6 J	NA	21.6 J	NA	42.2 J	NA	179 J	NA	162 J	29.4 J	NA	NA	29.4 J
Thallium	NA	2.2 U	NA	2.2 U	NA	2.5 U	NA	2.3 U	NA	2.1 U	NA	1.9 U	NA	2 U	2.5 U	NA	NA	2.5 U
Vanadium	NA	11.3	NA	8.1	NA	6.8	NA	9	NA	7.1	NA	7.9	NA	7.5	8.5	NA	NA	8.1
Zinc	NA	54.7	NA	121	NA	42.9	NA	42.3	NA	12.1	NA	77	NA	71.4	36.1	NA	NA	16.7
Wet Chemistry (MG_KG)																		
Perchlorate	NA	0.0023 U	NA	0.0024 U	NA	0.0026 U	NA	0.0024 U	NA	0.0022 U	NA	0.0022 U	NA	0.0021 U	0.0028 U	NA	NA	0.0027 U

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Phase II Surface Soil Raw Analytical Results
Decision Units D07 - F21
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-F14		MR04-F15		MR04-F16		MR04-F17		MR04-F18		MR04-F19		MR04-F20		MR04-F21	
Sample ID	MR04-F14-07C	MR04-F14-0-1-07C	MR04-F15-07C	MR04-F15-0-1-07C	MR04-F16-07C	MR04-F16-0-1-07C	MR04-F17-07C	MR04-F17-0-1-07C	MR04-F18-0-1-07C	MR04-F18-07C	MR04-F19-07C	MR04-F19-0-1-07C	MR04-F20-07C	MR04-F20-0-1-07C	MR04-F21-07C	MR04-F21-0-1-07C
Sample Date	09/06/07	09/06/07	09/07/07	09/07/07	09/07/07	09/07/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07	09/09/07
Chemical Name																
Total Metals (MG_KG)																
Aluminum	NA	5,500	NA	4,510 J	NA	5,560 J	NA	4,780	5,820	NA	NA	4,640	NA	4,390	NA	5,450
Antimony	NA	6 UJ	NA	6.2 UJ	NA	6.1 UJ	NA	5.4 UJ	0.31 J	NA	NA	5.4 UJ	NA	5.6 UJ	NA	5 UJ
Arsenic	NA	2.5	NA	3.5	NA	2.1	NA	2.1	3.5	NA	NA	2	NA	4	NA	1.5
Barium	NA	16.8 J	NA	14 J	NA	15.9 J	NA	14.2 J	19.3	NA	NA	14.2 J	NA	12.4 J	NA	16.7
Beryllium	NA	0.074 J	NA	0.045 J	NA	0.1 J	NA	0.09 J	0.11 J	NA	NA	0.083 J	NA	0.076 J	NA	0.065 J
Cadmium	NA	0.17 J	NA	0.13 J	NA	0.15 J	NA	0.19 J	0.21 J	NA	NA	0.13 J	NA	0.16 J	NA	0.036 J
Calcium	NA	79,300	NA	13,000 J	NA	3,230 J	NA	23,100	11,100	NA	NA	5,460	NA	102,000	NA	1,340
Chromium	NA	9.2	NA	6.6 J	NA	6.1 J	NA	7.4	8.8	NA	NA	5.5	NA	8.3	NA	5.1
Cobalt	NA	0.53 J	NA	0.27 J	NA	0.33 J	NA	0.71 J	0.8 J	NA	NA	0.32 J	NA	0.22 J	NA	0.23 J
Copper	NA	3.4	NA	2.6	NA	2.8	NA	2 J	2.5	NA	NA	3.1	NA	2.2 J	NA	1.1 J
Cyanide	NA	3.3 U	NA	2.9 U	NA	3.2 U	NA	2.8 U	3.1 U	NA	NA	2.6 U	NA	2.9 U	NA	2.7 U
Iron	NA	3,790	NA	3,560 J	NA	3,210 J	NA	2,870	4,020	NA	NA	2,890	NA	2,990	NA	2,800
Lead	NA	36.5	NA	23.3	NA	22.7	NA	14.7	18.6	NA	NA	25.1	NA	8.1	NA	6.1
Magnesium	NA	1,220	NA	340 J	NA	220 J	NA	462	386 J	NA	NA	228 J	NA	1,530	NA	145 J
Manganese	NA	34.4	NA	12.2	NA	14.9	NA	15.4	16	NA	NA	18.7	NA	22.8	NA	10.7
Mercury	NA	0.027 J	NA	0.017 J	NA	0.016 J	NA	0.019 J	0.12 U	NA	NA	0.019 J	NA	0.091 U	NA	0.01 J
Nickel	NA	2.8 J	NA	1.6 J	NA	2.5 J	NA	2.4 J	3 J	NA	NA	1.8 J	NA	1.6 J	NA	1.4 J
Potassium	NA	257 J	NA	163 J	NA	170 J	NA	178 J	191 J	NA	NA	123 J	NA	196 J	NA	103 J
Selenium	NA	1.6 J	NA	0.52 J	NA	3.6 U	NA	0.67 J	0.5 J	NA	NA	0.23 J	NA	1.9 J	NA	2.9 U
Silver	NA	1 U	NA	1 U	NA	1 U	NA	0.9 U	0.89 U	NA	NA	0.9 U	NA	0.93 U	NA	0.83 U
Sodium	NA	104 J	NA	28.7 J	NA	20.8 J	NA	67.6 J	84.6 J	NA	NA	31.2 J	NA	204 J	NA	21 J
Thallium	NA	2.5 U	NA	2.6 U	NA	2.6 U	NA	2.3 U	2.2 U	NA	NA	2.2 U	NA	2.3 U	NA	2.1 U
Vanadium	NA	14.1	NA	9	NA	8.2	NA	8.4	10.2	NA	NA	7.4	NA	7.3	NA	6.9
Zinc	NA	26.8	NA	75.8	NA	58.9	NA	71.6	57.7	NA	NA	21.9	NA	42.7	NA	6.5
Wet Chemistry (MG_KG)																
Perchlorate	NA	0.0054 U	NA	0.0027 U	NA	0.0028 U	NA	0.0024 U	0.0025 U	NA	NA	0.0024 U	NA	0.0025 U	NA	0.0022 U

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Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-A01		MR04-A02		MR04-A03				MR04-A04		MR04-A05		MR04-B01		MR04-B02		MR04-B03	
Sample ID	MR04-A01-0-1-07D	MR04-A01-07D	MR04-A02-0-1-07D	MR04-A02-07D	MR04-A03-0-1-07D	MR04-A03-07D	MR04-A03D-0-1-07D	MR04-A03D-07D	MR04-A04-0-1-07D	MR04-A04-07D	MR04-A05-0-1-07D	MR04-A05-07D	MR04-B01-0-1-07D	MR04-B01-07D	MR04-B02-0-1-07D	MR04-B02-07D	MR04-B03-0-1-07D	MR04-B03-07D
Sample Date	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,1,2,2-Tetrachloroethane	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,1,2-Trichloroethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,1-Dichloroethane	NA	3 J	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,1-Dichloroethene	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2,4-Trichlorobenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dibromo-3-chloropropane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dibromoethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dichlorobenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dichloroethane	NA	5 J	NA	12 U	NA	14 U	NA	13 U	NA	6.4 J	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,2-Dichloropropane	NA	32	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,3-Dichlorobenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
1,4-Dichlorobenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
2-Butanone	NA	35 J	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	22 J	NA	12 UJ	NA	18 UJ
2-Hexanone	NA	12 UJ	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 UJ	NA	12 UJ	NA	18 UJ
4-Methyl-2-pentanone	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	14	NA	18 U
Acetone	NA	770 J	NA	9.3 J	NA	7.5 J	NA	13 U	NA	5.7 J	NA	6.4 J	NA	650 J	NA	130 J	NA	890 J
Benzene	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Bromodichloromethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Bromoform	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Bromomethane	NA	2.9 J	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Carbon disulfide	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Carbon tetrachloride	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Chlorobenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Chloroethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Chloroform	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	2.7 J	NA	15 U	NA	12 U	NA	18 U
Chloromethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Cyclohexane	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Dibromochloromethane	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Dichlorodifluoromethane (Freon-12)	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Ethylbenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Isopropylbenzene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Methyl acetate	NA	14	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	41	NA	42	NA	18 U
Methyl-tert-butyl ether (MTBE)	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Methylcyclohexane	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Methylene chloride	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Styrene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Tetrachloroethene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Toluene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	3.3 J	NA	12 U	NA	18 U
Trichloroethene	NA	33	NA	12	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Trichlorofluoromethane(Freon-11)	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Vinyl chloride	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
Xylene, total	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
cis-1,2-Dichloroethene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
cis-1,3-Dichloropropene	NA	4.9 J	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
trans-1,2-Dichloroethene	NA	12 U	NA	12 UJ	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U
trans-1,3-Dichloropropene	NA	12 U	NA	12 U	NA	14 U	NA	13 U	NA	12 U	NA	14 U	NA	15 U	NA	12 U	NA	18 U

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-B04		MR04-B05				MR04-B06				MR04-B07		MR04-B08		MR04-C01		MR04-C02	
Sample ID	MR04-B04-0-1-07C	MR04-B04-07C	MR04-B05-0-1-07D	MR04-B05-07D	MR04-B05D-0-1-07D	MR04-B05D-07D	MR04-B06-0-1-07D	MR04-B06-07D	MR04-B06D-0-1-07D	MR04-B06D-07D	MR04-B07-0-1-07D	MR04-B07-07D	MR04-B08-0-1-07D	MR04-B08-07D	MR04-C01-0-1-07D	MR04-C01-07D	MR04-C02-0-1-07D	MR04-C02-07D
Sample Date	09/11/07	09/11/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/22/07	10/22/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,1,2,2-Tetrachloroethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,1,2-Trichloroethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,1-Dichloroethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,1-Dichloroethene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2,4-Trichlorobenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2-Dibromo-3-chloropropane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2-Dibromoethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2-Dichlorobenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2-Dichloroethane	NA	12 U	NA	4.6 J	NA	11 U	NA	11 U	NA	5 J	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,2-Dichloropropane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,3-Dichlorobenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
1,4-Dichlorobenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
2-Butanone	NA	5.4 J	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 J	NA	5.4 J	NA	7.5 J
2-Hexanone	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 UJ	NA	14 UJ
4-Methyl-2-pentanone	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Acetone	NA	39	NA	25	NA	58	NA	46	NA	11 U	NA	28	NA	180	NA	95 J	NA	140 J
Benzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Bromodichloromethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Bromoform	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Bromomethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Carbon disulfide	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Carbon tetrachloride	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Chlorobenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Chloroethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Chloroform	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Chloromethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Cyclohexane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Dibromochloromethane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Dichlorodifluoromethane (Freon-12)	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Ethylbenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Isopropylbenzene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Methyl acetate	NA	3.3 J	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	6.2 J	NA	20 J
Methyl-tert-butyl ether (MTBE)	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Methylcyclohexane	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Methylene chloride	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Styrene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	1.8 J	NA	11 U	NA	14 U
Tetrachloroethene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Toluene	NA	1 J	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	3.9 J
Trichloroethene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Trichlorofluoromethane(Freon-11)	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Vinyl chloride	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
Xylene, total	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
cis-1,2-Dichloroethene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
cis-1,3-Dichloropropene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
trans-1,2-Dichloroethene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U
trans-1,3-Dichloropropene	NA	12 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	11 U	NA	12 U	NA	11 U	NA	14 U

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C03		MR04-C04		MR04-C05		MR04-C06		MR04-C07		MR04-C08		MR04-C09		MR04-C10		MR04-C11	
Sample ID	MR04-C03-0-1-07D	MR04-C03-07D	MR04-C04-0-1-07D	MR04-C04-07D	MR04-C05-0-1-07C	MR04-C05-07C	MR04-C06-0-1-07C	MR04-C06-07C	MR04-C07-0-1-07C	MR04-C07-07C	MR04-C08-0-1-07D	MR04-C08-07D	MR04-C09-0-1-07C	MR04-C09-07C	MR04-C10-0-1-07D	MR04-C10-07D	MR04-C11-0-1-07D	MR04-C11-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/21/07	10/21/07	09/11/07	09/11/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,1,2,2-Tetrachloroethane	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,1,2-Trichloroethane	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,1-Dichloroethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,1-Dichloroethene	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2,4-Trichlorobenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dibromo-3-chloropropane	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dibromoethane	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dichlorobenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dichloroethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,2-Dichloropropane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,3-Dichlorobenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
1,4-Dichlorobenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
2-Butanone	NA	4.3 J	NA	11	NA	55 J	NA	13 U	NA	14 J	NA	20 J	NA	11 U	NA	16	NA	17 J
2-Hexanone	NA	6 UJ	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 UJ	NA	11 U	NA	14 U	NA	11 UJ
4-Methyl-2-pentanone	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Acetone	NA	41 J	NA	400 J	NA	1,200 J	NA	27 J	NA	200 J	NA	330 J	NA	18	NA	390 J	NA	410 J
Benzene	NA	0.47 J	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Bromodichloromethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Bromoform	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Bromomethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Carbon disulfide	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Carbon tetrachloride	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Chlorobenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Chloroethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Chloroform	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Chloromethane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Cyclohexane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Dibromochloromethane	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Dichlorodifluoromethane (Freon-12)	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Ethylbenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Isopropylbenzene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Methyl acetate	NA	4.8 J	NA	25	NA	760 J	NA	5 J	NA	610 J	NA	38	NA	11 U	NA	410 J	NA	35
Methyl-tert-butyl ether (MTBE)	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Methylcyclohexane	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Methylene chloride	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Styrene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Tetrachloroethene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Toluene	NA	1.5 J	NA	4 J	NA	5 J	NA	13 UJ	NA	16 UJ	NA	0.96 J	NA	11 U	NA	1.3 J	NA	1.2 J
Trichloroethene	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Trichlorofluoromethane(Freon-11)	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Vinyl chloride	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
Xylene, total	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
cis-1,2-Dichloroethene	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
cis-1,3-Dichloropropene	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U
trans-1,2-Dichloroethene	NA	6 U	NA	11 U	NA	27 U	NA	13 U	NA	16 U	NA	10 U	NA	11 U	NA	14 U	NA	11 U
trans-1,3-Dichloropropene	NA	6 U	NA	11 U	NA	27 UJ	NA	13 UJ	NA	16 UJ	NA	10 U	NA	11 U	NA	14 U	NA	11 U

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C12		MR04-C13		MR04-C14		MR04-C15		MR04-D01		MR04-D02				MR04-D03		MR04-D04	
Sample ID	MR04-C12-0-1-07D	MR04-C12-07D	MR04-C13-0-1-07D	MR04-C13-07D	MR04-C14-0-1-07D	MR04-C14-07D	MR04-C15-0-1-07D	MR04-C15-07D	MR04-D01-0-1-07D	MR04-D01-07D	MR04-D02-0-1-07D	MR04-D02-07D	MR04-D02D-0-1-07D	MR04-D02D-07D	MR04-D03-0-1-07D	MR04-D03-07D	MR04-D04-0-1-07D	MR04-D04-07D
Sample Date	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Volatile Organic Compounds (UG_KG)																		
1,1,1-Trichloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,1,2,2-Tetrachloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,1,2-Trichloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,1-Dichloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,1-Dichloroethene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2,4-Trichlorobenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2-Dibromo-3-chloropropane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2-Dibromoethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2-Dichlorobenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2-Dichloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,2-Dichloropropane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,3-Dichlorobenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
1,4-Dichlorobenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
2-Butanone	NA	4 J	NA	21	NA	14 J	NA	21	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	9.9 J
2-Hexanone	NA	5.1 UJ	NA	15 U	NA	11 UJ	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
4-Methyl-2-pentanone	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Acetone	NA	66 J	NA	240	NA	200 J	NA	240	NA	11 UJ	NA	13 UJ	NA	14 UJ	NA	22 J	NA	170 J
Benzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Bromodichloromethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Bromoform	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Bromomethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Carbon disulfide	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Carbon tetrachloride	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Chlorobenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Chloroethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Chloroform	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Chloromethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Cyclohexane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Dibromochloromethane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Dichlorodifluoromethane (Freon-12)	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Ethylbenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Isopropylbenzene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Methyl acetate	NA	5.8	NA	82	NA	37	NA	120 J	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	3.4 J
Methyl-tert-butyl ether (MTBE)	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Methylcyclohexane	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Methylene chloride	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Styrene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Tetrachloroethene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Toluene	NA	5.1 U	NA	2.5 J	NA	11 U	NA	1.5 J	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Trichloroethene	NA	5.1 U	NA	15 U	NA	11 U	NA	15	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Trichlorofluoromethane(Freon-11)	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Vinyl chloride	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
Xylene, total	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
cis-1,2-Dichloroethene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
cis-1,3-Dichloropropene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
trans-1,2-Dichloroethene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 UJ	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U
trans-1,3-Dichloropropene	NA	5.1 U	NA	15 U	NA	11 U	NA	15 U	NA	11 U	NA	13 U	NA	14 U	NA	15 U	NA	11 U

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D05		MR04-D06			
Sample ID	MR04-D05-0-1-07D	MR04-D05-07D	MR04-D06-0-1-07D	MR04-D06-07D	MR04-D06D-0-1-07D	MR04-D06D-07D
Sample Date	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name						
Volatile Organic Compounds (UG_KG)						
1,1,1-Trichloroethane	NA	11 U	NA	5.9 U	NA	14 U
1,1,2,2-Tetrachloroethane	NA	11 U	NA	5.9 U	NA	14 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	NA	11 U	NA	5.9 U	NA	14 U
1,1,2-Trichloroethane	NA	11 U	NA	5.9 U	NA	14 U
1,1-Dichloroethane	NA	11 U	NA	5.9 U	NA	14 U
1,1-Dichloroethene	NA	11 U	NA	5.9 U	NA	14 U
1,2,4-Trichlorobenzene	NA	11 U	NA	5.9 U	NA	14 U
1,2-Dibromo-3-chloropropane	NA	11 U	NA	5.9 U	NA	14 U
1,2-Dibromoethane	NA	11 U	NA	5.9 U	NA	14 U
1,2-Dichlorobenzene	NA	11 U	NA	5.9 U	NA	14 U
1,2-Dichloroethane	NA	11 U	NA	5.9 U	NA	14 U
1,2-Dichloropropane	NA	11 U	NA	5.9 U	NA	14 U
1,3-Dichlorobenzene	NA	11 U	NA	5.9 U	NA	14 U
1,4-Dichlorobenzene	NA	11 U	NA	5.9 U	NA	14 U
2-Butanone	NA	11 U	NA	5.9 U	NA	14 U
2-Hexanone	NA	11 U	NA	5.9 U	NA	14 U
4-Methyl-2-pentanone	NA	11 U	NA	5.9 U	NA	14 U
Acetone	NA	57 J	NA	33 J	NA	220 J
Benzene	NA	11 U	NA	0.55 J	NA	14 U
Bromodichloromethane	NA	11 U	NA	5.9 U	NA	14 U
Bromoform	NA	11 U	NA	5.9 U	NA	14 U
Bromomethane	NA	11 U	NA	5.9 U	NA	14 U
Carbon disulfide	NA	11 U	NA	5.9 U	NA	14 U
Carbon tetrachloride	NA	11 U	NA	5.9 U	NA	14 U
Chlorobenzene	NA	11 U	NA	5.9 U	NA	14 U
Chloroethane	NA	11 U	NA	5.9 U	NA	14 U
Chloroform	NA	11 U	NA	5.9 U	NA	14 U
Chloromethane	NA	11 U	NA	5.9 U	NA	14 U
Cyclohexane	NA	11 U	NA	5.9 U	NA	14 U
Dibromochloromethane	NA	11 U	NA	5.9 U	NA	14 U
Dichlorodifluoromethane (Freon-12)	NA	11 U	NA	5.9 U	NA	14 U
Ethylbenzene	NA	11 U	NA	5.9 U	NA	14 U
Isopropylbenzene	NA	11 U	NA	5.9 U	NA	14 U
Methyl acetate	NA	11 U	NA	7.7	NA	630 J
Methyl-tert-butyl ether (MTBE)	NA	11 U	NA	5.9 U	NA	14 U
Methylcyclohexane	NA	11 U	NA	5.9 U	NA	14 U
Methylene chloride	NA	11 U	NA	5.9 U	NA	14 U
Styrene	NA	11 U	NA	5.9 U	NA	14 U
Tetrachloroethene	NA	11 U	NA	5.9 U	NA	14 U
Toluene	NA	11 U	NA	5.9 U	NA	14 U
Trichloroethene	NA	11 U	NA	5.9 U	NA	14 U
Trichlorofluoromethane(Freon-11)	NA	11 U	NA	5.9 U	NA	14 U
Vinyl chloride	NA	11 U	NA	5.9 U	NA	14 U
Xylene, total	NA	11 U	NA	5.9 U	NA	14 U
cis-1,2-Dichloroethene	NA	11 U	NA	5.9 U	NA	14 U
cis-1,3-Dichloropropene	NA	11 U	NA	5.9 U	NA	14 U
trans-1,2-Dichloroethene	NA	11 U	NA	5.9 U	NA	14 U
trans-1,3-Dichloropropene	NA	11 U	NA	5.9 U	NA	14 U

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-A01		MR04-A02		MR04-A03				MR04-A04		MR04-A05		MR04-B01		MR04-B02		MR04-B03	
Sample ID	MR04-A01-0-1-07D	MR04-A01-07D	MR04-A02-0-1-07D	MR04-A02-07D	MR04-A03-0-1-07D	MR04-A03-07D	MR04-A03D-0-1-07D	MR04-A03D-07D	MR04-A04-0-1-07D	MR04-A04-07D	MR04-A05-0-1-07D	MR04-A05-07D	MR04-B01-0-1-07D	MR04-B01-07D	MR04-B02-0-1-07D	MR04-B02-07D	MR04-B03-0-1-07D	MR04-B03-07D
Sample Date	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,2'-Oxybis(1-chloropropane)	370 UJ	NA	360 UJ	NA	370 UJ	NA	370 UJ	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,4,5-Trichlorophenol	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
2,4,6-Trichlorophenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,4-Dichlorophenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,4-Dimethylphenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,4-Dinitrophenol	920 UJ	NA	910 U	NA	940 U	NA	940 UJ	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
2,4-Dinitrotoluene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2,6-Dinitrotoluene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2-Chloronaphthalene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2-Chlorophenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2-Methylnaphthalene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2-Methylphenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
2-Nitroaniline	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
2-Nitrophenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
3,3'-Dichlorobenzidine	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
3-Nitroaniline	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
4,6-Dinitro-2-methylphenol	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
4-Bromophenyl-phenylether	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
4-Chloro-3-methylphenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
4-Chloroaniline	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
4-Chlorophenyl-phenylether	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
4-Methylphenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
4-Nitroaniline	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
4-Nitrophenol	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 U	NA	900 U	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
Acenaphthene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Acenaphthylene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Acetophenone	22 J	NA	360 U	NA	370 U	NA	29 J	NA	18 J	NA	22 J	NA	29 J	NA	25 J	NA	490 U	NA
Anthracene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Atrazine	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzaldehyde	370 UJ	NA	27 J	NA	35 J	NA	39 J	NA	41 J	NA	74 J	NA	490 U	NA	460 U	NA	60 J	NA
Benzo(a)anthracene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(a)pyrene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(b)fluoranthene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(g,h,i)perylene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Benzo(k)fluoranthene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Butylbenzylphthalate	31 J	NA	27 J	NA	28 J	NA	33 J	NA	28 J	NA	20 J	NA	37 J	NA	460 U	NA	35 J	NA
Caprolactam	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	150 J	NA	220 J	NA	250 J	NA
Carbazole	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Chrysene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Di-n-butylphthalate	22 J	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Di-n-octylphthalate	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Dibenz(a,h)anthracene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Dibenzofuran	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Diethylphthalate	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Dimethyl phthalate	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Fluoranthene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Fluorene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Hexachlorobenzene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Hexachlorobutadiene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Hexachlorocyclopentadiene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 UJ	NA	360 UJ	NA	490 U	NA	460 U	NA	490 U	NA
Hexachloroethane	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Isophorone	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Naphthalene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Nitrobenzene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Pentachlorophenol	920 U	NA	910 U	NA	940 U	NA	940 U	NA	900 UJ	NA	900 UJ	NA	1,200 U	NA	1,200 U	NA	1,200 U	NA
Phenanthrene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Phenol	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
Pyrene	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 UJ	NA	360 UJ	NA	490 U	NA	460 U	NA	490 U	NA
bis(2-Chloroethoxy)methane	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
bis(2-Chloroethyl)ether	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
bis(2-Ethylhexyl)phthalate	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA
n-Nitrosodiphenylamine	370 U	NA	360 U	NA	370 U	NA	370 U	NA	360 U	NA	360 U	NA	490 U	NA	460 U	NA	490 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-B04		MR04-B05				MR04-B06				MR04-B07		MR04-B08		MR04-C01		MR04-C02	
Sample ID	MR04-B04-0-1-07C	MR04-B04-07C	MR04-B05-0-1-07D	MR04-B05-07D	MR04-B05D-0-1-07D	MR04-B05D-07D	MR04-B06-0-1-07D	MR04-B06-07D	MR04-B06D-0-1-07D	MR04-B06D-07D	MR04-B07-0-1-07D	MR04-B07-07D	MR04-B08-0-1-07D	MR04-B08-07D	MR04-C01-0-1-07D	MR04-C01-07D	MR04-C02-0-1-07D	MR04-C02-07D
Sample Date	09/11/07	09/11/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/22/07	10/22/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2,2'-Oxybis(1-chloropropane)	380 U	NA	350 UJ	NA	350 UJ	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 UJ	NA	450 UJ	NA
2,4,5-Trichlorophenol	380 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2,4-Dichlorophenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2,4-Dimethylphenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2,4-Dinitrophenol	1,900 U	NA	890 UJ	NA	880 UJ	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 UJ	NA	1,100 UJ	NA
2,4-Dinitrotoluene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2,6-Dinitrotoluene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2-Chloronaphthalene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2-Chlorophenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2-Methylnaphthalene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2-Methylphenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
2-Nitroaniline	1,900 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
2-Nitrophenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
3,3'-Dichlorobenzidine	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
3-Nitroaniline	1,900 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	1,900 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
4-Chloro-3-methylphenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
4-Chloroaniline	750 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
4-Chlorophenyl-phenylether	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
4-Methylphenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
4-Nitroaniline	1,900 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
4-Nitrophenol	1,900 U	NA	890 U	NA	880 U	NA	920 U	NA	930 U	NA	930 U	NA	940 U	NA	1,000 U	NA	1,100 U	NA
Acenaphthene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Acenaphthylene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Acetophenone	380 U	NA	350 U	NA	16 J	NA	18 J	NA	370 U	NA	28 J	NA	36 J	NA	400 U	NA	450 U	NA
Anthracene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Atrazine	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Benzaldehyde	380 UJ	NA	350 UJ	NA	350 UJ	NA	42 J	NA	370 U	NA	80 J	NA	150 J	NA	400 U	NA	450 U	NA
Benzo(a)anthracene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Benzo(a)pyrene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Benzo(b)fluoranthene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Benzo(g,h,i)perylene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Benzo(k)fluoranthene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Butylbenzylphthalate	380 U	NA	25 J	NA	33 J	NA	26 J	NA	23 J	NA	28 J	NA	20 J	NA	400 U	NA	450 U	NA
Caprolactam	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	390 J	NA
Carbazole	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Chrysene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Di-n-butylphthalate	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Di-n-octylphthalate	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Dibenz(a,h)anthracene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Dibenzofuran	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Diethylphthalate	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Dimethyl phthalate	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Fluoranthene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	30 J	NA	23 J	NA
Fluorene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Hexachlorobenzene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Hexachlorobutadiene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Hexachlorocyclopentadiene	380 U	NA	350 U	NA	350 U	NA	370 UJ	NA	370 UJ	NA	370 UJ	NA	380 UJ	NA	400 U	NA	450 U	NA
Hexachloroethane	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Indeno(1,2,3-cd)pyrene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Isophorone	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Naphthalene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Nitrobenzene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Pentachlorophenol	1,900 U	NA	890 U	NA	880 U	NA	920 UJ	NA	930 UJ	NA	930 UJ	NA	940 UJ	NA	1,000 U	NA	1,100 U	NA
Phenanthrene	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Phenol	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
Pyrene	380 U	NA	350 U	NA	350 U	NA	370 UJ	NA	370 UJ	NA	370 UJ	NA	380 UJ	NA	19 J	NA	450 UJ	NA
bis(2-Chloroethoxy)methane	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
bis(2-Chloroethyl)ether	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
bis(2-Ethylhexyl)phthalate	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
n-Nitroso-di-n-propylamine	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA
n-Nitrosodiphenylamine	380 U	NA	350 U	NA	350 U	NA	370 U	NA	370 U	NA	370 U	NA	380 U	NA	400 U	NA	450 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C03		MR04-C04		MR04-C05		MR04-C06		MR04-C07		MR04-C08		MR04-C09		MR04-C10		MR04-C11	
Sample ID	MR04-C03-0-1-07D	MR04-C03-07D	MR04-C04-0-1-07D	MR04-C04-07D	MR04-C05-0-1-07C	MR04-C05-07C	MR04-C06-0-1-07C	MR04-C06-07C	MR04-C07-0-1-07C	MR04-C07-07C	MR04-C08-0-1-07D	MR04-C08-07D	MR04-C09-0-1-07C	MR04-C09-07C	MR04-C10-0-1-07D	MR04-C10-07D	MR04-C11-0-1-07D	MR04-C11-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/21/07	10/21/07	09/11/07	09/11/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,2'-Oxybis(1-chloropropane)	380 UJ	NA	360 UJ	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,4,5-Trichlorophenol	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	360 U	NA	990 U	NA	920 U	NA
2,4,6-Trichlorophenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,4-Dichlorophenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,4-Dimethylphenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,4-Dinitrophenol	940 UJ	NA	910 UJ	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
2,4-Dinitrotoluene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2,6-Dinitrotoluene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2-Chloronaphthalene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2-Chlorophenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2-Methylnaphthalene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2-Methylphenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
2-Nitroaniline	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
2-Nitrophenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
3,3'-Dichlorobenzidine	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
3-Nitroaniline	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
4,6-Dinitro-2-methylphenol	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
4-Bromophenyl-phenylether	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
4-Chloro-3-methylphenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
4-Chloroaniline	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	730 U	NA	390 U	NA	370 U	NA
4-Chlorophenyl-phenylether	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
4-Methylphenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
4-Nitroaniline	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
4-Nitrophenol	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 U	NA
Acenaphthene	380 U	NA	360 U	NA	26 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Acenaphthylene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Acetophenone	380 U	NA	360 U	NA	400 U	NA	380 U	NA	27 J	NA	40 J	NA	360 U	NA	27 J	NA	370 U	NA
Anthracene	380 U	NA	360 U	NA	24 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Atrazine	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzaldehyde	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 UJ	NA	390 U	NA	370 U	NA
Benzo(a)anthracene	380 U	NA	360 U	NA	110 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(a)pyrene	380 U	NA	360 U	NA	100 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(b)fluoranthene	380 U	NA	360 U	NA	110 J	NA	20 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(g,h,i)perylene	380 U	NA	360 U	NA	34 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Benzo(k)fluoranthene	380 U	NA	360 U	NA	160 J	NA	31 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Butylbenzylphthalate	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	43 J	NA
Caprolactam	380 U	NA	55 J	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Carbazole	380 U	NA	360 U	NA	18 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Chrysene	380 U	NA	360 U	NA	130 J	NA	30 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Di-n-butylphthalate	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	21 J	NA	390 U	NA	370 U	NA
Di-n-octylphthalate	380 U	NA	360 U	NA	400 U	NA	380 U	NA	22 J	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Dibenz(a,h)anthracene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Dibenzofuran	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Diethylphthalate	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Dimethyl phthalate	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Fluoranthene	380 U	NA	360 U	NA	230 J	NA	27 J	NA	430 U	NA	510 U	NA	19 J	NA	390 U	NA	26 J	NA
Fluorene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Hexachlorobenzene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Hexachlorobutadiene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Hexachlorocyclopentadiene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 UJ	NA
Hexachloroethane	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Indeno(1,2,3-cd)pyrene	380 U	NA	360 U	NA	32 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Isophorone	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Naphthalene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Nitrobenzene	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Pentachlorophenol	940 U	NA	910 U	NA	1,000 U	NA	970 U	NA	1,100 U	NA	1,300 U	NA	1,900 U	NA	990 U	NA	920 UJ	NA
Phenanthrene	380 U	NA	360 U	NA	130 J	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Phenol	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
Pyrene	380 UJ	NA	360 UJ	NA	200 J	NA	34 J	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	22 J	NA
bis(2-Chloroethoxy)methane	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
bis(2-Chloroethyl)ether	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
bis(2-Ethylhexyl)phthalate	380 U	NA	360 U	NA	400 U	NA	770	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
n-Nitroso-di-n-propylamine	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA
n-Nitrosodiphenylamine	380 U	NA	360 U	NA	400 U	NA	380 U	NA	430 U	NA	510 U	NA	360 U	NA	390 U	NA	370 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C12		MR04-C13		MR04-C14		MR04-C15		MR04-D01		MR04-D02				MR04-D03		MR04-D04	
Sample ID	MR04-C12-0-1-07D	MR04-C12-07D	MR04-C13-0-1-07D	MR04-C13-07D	MR04-C14-0-1-07D	MR04-C14-07D	MR04-C15-0-1-07D	MR04-C15-07D	MR04-D01-0-1-07D	MR04-D01-07D	MR04-D02-0-1-07D	MR04-D02-07D	MR04-D02D-0-1-07D	MR04-D02D-07D	MR04-D03-0-1-07D	MR04-D03-07D	MR04-D04-0-1-07D	MR04-D04-07D
Sample Date	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Semi-volatile Organic Compounds (UG_KG)																		
1,1-Biphenyl	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 UJ	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,4,5-Trichlorophenol	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
2,4,6-Trichlorophenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,4-Dichlorophenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,4-Dimethylphenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,4-Dinitrophenol	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 UJ	NA	1,200 UJ	NA	1,100 UJ	NA	900 UJ	NA
2,4-Dinitrotoluene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2,6-Dinitrotoluene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2-Chloronaphthalene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2-Chlorophenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2-Methylnaphthalene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2-Methylphenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
2-Nitroaniline	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
2-Nitrophenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
3,3'-Dichlorobenzidine	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
3-Nitroaniline	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
4,6-Dinitro-2-methylphenol	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
4-Bromophenyl-phenylether	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
4-Chloro-3-methylphenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
4-Chloroaniline	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
4-Chlorophenyl-phenylether	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
4-Methylphenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
4-Nitroaniline	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
4-Nitrophenol	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
Acenaphthene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Acenaphthylene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Acetophenone	370 U	NA	29 J	NA	32 J	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Anthracene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Atrazine	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Benzaldehyde	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 UJ	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Benzo(a)anthracene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	21 J	NA	25 J	NA	47 J	NA	360 U	NA
Benzo(a)pyrene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	21 J	NA	28 J	NA	41 J	NA	360 U	NA
Benzo(b)fluoranthene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	32 J	NA	51 J	NA	37 J	NA	360 U	NA
Benzo(g,h,i)perylene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	20 J	NA	360 U	NA
Benzo(k)fluoranthene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	42 J	NA	45 J	NA	47 J	NA	360 U	NA
Butylbenzylphthalate	370 U	NA	55 J	NA	72 J	NA	43 J	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Caprolactam	370 U	NA	140 J	NA	230 J	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Carbazole	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Chrysene	370 U	NA	34 J	NA	540 U	NA	360 U	NA	360 U	NA	28 J	NA	38 J	NA	49 J	NA	360 U	NA
Di-n-butylphthalate	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	35 J	NA	430 U	NA	360 U	NA
Di-n-octylphthalate	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Dibenz(a,h)anthracene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Dibenzofuran	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Diethylphthalate	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Dimethyl phthalate	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Fluoranthene	42 J	NA	43 J	NA	540 U	NA	28 J	NA	360 U	NA	24 J	NA	29 J	NA	100 J	NA	360 U	NA
Fluorene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Hexachlorobenzene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Hexachlorobutadiene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Hexachlorocyclopentadiene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 UJ	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Hexachloroethane	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	20 J	NA	360 U	NA
Isophorone	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Naphthalene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Nitrobenzene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Pentachlorophenol	930 U	NA	1,200 U	NA	1,400 U	NA	890 U	NA	900 U	NA	1,100 U	NA	1,200 U	NA	1,100 U	NA	900 U	NA
Phenanthrene	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	61 J	NA	360 U	NA
Phenol	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
Pyrene	43 J	NA	59 J	NA	540 U	NA	35 J	NA	360 U	NA	32 J	NA	46 J	NA	76 J	NA	360 U	NA
bis(2-Chloroethoxy)methane	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
bis(2-Chloroethyl)ether	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
bis(2-Ethylhexyl)phthalate	370 U	NA	470	NA	540 U	NA	360 U	NA	52 J	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA
n-Nitrosodiphenylamine	370 U	NA	460 U	NA	540 U	NA	360 U	NA	360 U	NA	430 U	NA	490 U	NA	430 U	NA	360 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D05		MR04-D06			
Sample ID	MR04-D05-0-1-07D	MR04-D05-07D	MR04-D06-0-1-07D	MR04-D06-07D	MR04-D06D-0-1-07D	MR04-D06D-07D
Sample Date	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name						
Semi-volatile Organic Compounds (UG_KG)						
1,1-Biphenyl	370 U	NA	480 U	NA	430 U	NA
2,2'-Oxybis(1-chloropropane)	370 U	NA	480 UJ	NA	430 UJ	NA
2,4,5-Trichlorophenol	920 U	NA	1,200 U	NA	1,100 U	NA
2,4,6-Trichlorophenol	370 U	NA	480 U	NA	430 U	NA
2,4-Dichlorophenol	370 U	NA	480 U	NA	430 U	NA
2,4-Dimethylphenol	370 U	NA	480 U	NA	430 U	NA
2,4-Dinitrophenol	920 UJ	NA	1,200 UJ	NA	1,100 UJ	NA
2,4-Dinitrotoluene	370 U	NA	480 U	NA	430 U	NA
2,6-Dinitrotoluene	370 U	NA	480 U	NA	430 U	NA
2-Chloronaphthalene	370 U	NA	480 U	NA	430 U	NA
2-Chlorophenol	370 U	NA	480 U	NA	430 U	NA
2-Methylnaphthalene	370 U	NA	480 U	NA	430 U	NA
2-Methylphenol	370 U	NA	480 U	NA	430 U	NA
2-Nitroaniline	920 U	NA	1,200 U	NA	1,100 U	NA
2-Nitrophenol	370 U	NA	480 U	NA	430 U	NA
3,3'-Dichlorobenzidine	370 U	NA	480 U	NA	430 U	NA
3-Nitroaniline	920 U	NA	1,200 U	NA	1,100 U	NA
4,6-Dinitro-2-methylphenol	920 U	NA	1,200 U	NA	1,100 U	NA
4-Bromophenyl-phenylether	370 U	NA	480 U	NA	430 U	NA
4-Chloro-3-methylphenol	370 U	NA	480 U	NA	430 U	NA
4-Chloroaniline	370 U	NA	480 U	NA	430 U	NA
4-Chlorophenyl-phenylether	370 U	NA	480 U	NA	430 U	NA
4-Methylphenol	370 U	NA	480 U	NA	430 U	NA
4-Nitroaniline	920 U	NA	1,200 U	NA	1,100 U	NA
4-Nitrophenol	920 U	NA	1,200 U	NA	1,100 U	NA
Acenaphthene	370 U	NA	480 U	NA	430 U	NA
Acenaphthylene	370 U	NA	480 U	NA	430 U	NA
Acetophenone	370 U	NA	480 U	NA	430 U	NA
Anthracene	370 U	NA	480 U	NA	430 U	NA
Atrazine	370 U	NA	480 U	NA	430 U	NA
Benzaldehyde	370 U	NA	480 U	NA	430 U	NA
Benzo(a)anthracene	370 U	NA	480 U	NA	430 U	NA
Benzo(a)pyrene	370 U	NA	480 U	NA	430 U	NA
Benzo(b)fluoranthene	370 U	NA	480 U	NA	430 U	NA
Benzo(g,h,i)perylene	370 U	NA	480 U	NA	430 U	NA
Benzo(k)fluoranthene	370 U	NA	480 U	NA	430 U	NA
Butylbenzylphthalate	370 U	NA	480 U	NA	430 U	NA
Caprolactam	370 U	NA	480 U	NA	200 J	NA
Carbazole	370 U	NA	480 U	NA	430 U	NA
Chrysene	370 U	NA	480 U	NA	430 U	NA
Di-n-butylphthalate	370 U	NA	480 U	NA	430 U	NA
Di-n-octylphthalate	370 U	NA	480 U	NA	430 U	NA
Dibenz(a,h)anthracene	370 U	NA	480 U	NA	430 U	NA
Dibenzofuran	370 U	NA	480 U	NA	430 U	NA
Diethylphthalate	370 U	NA	480 U	NA	430 U	NA
Dimethyl phthalate	370 U	NA	480 U	NA	430 U	NA
Fluoranthene	370 U	NA	480 U	NA	430 U	NA
Fluorene	370 U	NA	480 U	NA	430 U	NA
Hexachlorobenzene	370 U	NA	480 U	NA	430 U	NA
Hexachlorobutadiene	370 U	NA	480 U	NA	430 U	NA
Hexachlorocyclopentadiene	370 U	NA	480 U	NA	430 U	NA
Hexachloroethane	370 U	NA	480 U	NA	430 U	NA
Indeno(1,2,3-cd)pyrene	370 U	NA	480 U	NA	430 U	NA
Isophorone	370 U	NA	480 U	NA	430 U	NA
Naphthalene	370 U	NA	480 U	NA	430 U	NA
Nitrobenzene	370 U	NA	480 U	NA	430 U	NA
Pentachlorophenol	920 U	NA	1,200 U	NA	1,100 U	NA
Phenanthrene	370 U	NA	480 U	NA	430 U	NA
Phenol	370 U	NA	480 U	NA	430 U	NA
Pyrene	370 U	NA	480 UJ	NA	430 UJ	NA
bis(2-Chloroethoxy)methane	370 U	NA	480 U	NA	430 U	NA
bis(2-Chloroethyl)ether	370 U	NA	480 U	NA	430 U	NA
bis(2-Ethylhexyl)phthalate	370 U	NA	480 U	NA	430 U	NA
n-Nitroso-di-n-propylamine	370 U	NA	480 U	NA	430 U	NA
n-Nitrosodiphenylamine	370 U	NA	480 U	NA	430 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-A01		MR04-A02		MR04-A03				MR04-A04		MR04-A05		MR04-B01		MR04-B02		MR04-B03	
Sample ID	MR04-A01-0-1-07D	MR04-A01-07D	MR04-A02-0-1-07D	MR04-A02-07D	MR04-A03-0-1-07D	MR04-A03-07D	MR04-A03D-0-1-07D	MR04-A03D-07D	MR04-A04-0-1-07D	MR04-A04-07D	MR04-A05-0-1-07D	MR04-A05-07D	MR04-B01-0-1-07D	MR04-B01-07D	MR04-B02-0-1-07D	MR04-B02-07D	MR04-B03-0-1-07D	MR04-B03-07D
Sample Date	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	2.5 J	NA	4.6 U	NA	3.2 J	NA
4,4'-DDE	5.1	NA	2.1 J	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	1.8 J	NA	100	NA	9.4	NA	35	NA
4,4'-DDT	2.5 J	NA	2.9 J	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	31	NA	9.2	NA	40	NA
Aldrin	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
Aroclor-1016	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Aroclor-1221	74 U	NA	74 U	NA	76 U	NA	76 U	NA	73 U	NA	73 U	NA	98 U	NA	93 U	NA	98 U	NA
Aroclor-1232	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Aroclor-1242	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Aroclor-1248	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Aroclor-1254	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Aroclor-1260	37 U	NA	36 U	NA	38 U	NA	38 U	NA	36 U	NA	36 U	NA	48 U	NA	46 U	NA	48 U	NA
Dieldrin	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	39	NA	18	NA	4.8 U	NA
Endosulfan I	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
Endosulfan II	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	3.6 J	NA	4.6 U	NA	4.8 U	NA
Endosulfan sulfate	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.6 U	NA	4.8 U	NA
Endrin	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.6 U	NA	4.8 U	NA
Endrin aldehyde	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.6 U	NA	4.8 U	NA
Endrin ketone	3.7 U	NA	3.6 U	NA	3.8 U	NA	3.8 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.6 U	NA	4.8 U	NA
Heptachlor	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
Heptachlor epoxide	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	7.3 J	NA	2.4 U	NA	2.5 U	NA
Methoxychlor	19 U	NA	19 U	NA	19 U	NA	19 U	NA	18 U	NA	18 U	NA	25 U	NA	24 U	NA	25 U	NA
Toxaphene	190 U	NA	190 U	NA	190 U	NA	190 U	NA	180 U	NA	180 U	NA	250 U	NA	240 U	NA	250 U	NA
alpha-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
alpha-Chlordane	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	87 J	NA	5.3 J	NA	2.5 U	NA
beta-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
delta-BHC	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
gamma-BHC (Lindane)	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	2.5 U	NA	2.4 U	NA	2.5 U	NA
gamma-Chlordane	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.8 U	NA	1.8 U	NA	64	NA	2.8	NA	1.9 J	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	65 J	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 UJ	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	590	NA	120 U	NA	250	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-B04		MR04-B05				MR04-B06				MR04-B07		MR04-B08		MR04-C01		MR04-C02	
Sample ID	MR04-B04-0-1-07C	MR04-B04-07C	MR04-B05-0-1-07D	MR04-B05-07D	MR04-B05D-0-1-07D	MR04-B05D-07D	MR04-B06-0-1-07D	MR04-B06-07D	MR04-B06D-0-1-07D	MR04-B06D-07D	MR04-B07-0-1-07D	MR04-B07-07D	MR04-B08-0-1-07D	MR04-B08-07D	MR04-C01-0-1-07D	MR04-C01-07D	MR04-C02-0-1-07D	MR04-C02-07D
Sample Date	09/11/07	09/11/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/22/07	10/22/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	2 J	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	2.6 J	NA	4.5 U	NA
4,4'-DDE	64	NA	11	NA	11	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	62	NA	7.2	NA
4,4'-DDT	29	NA	2.8 J	NA	3.2 J	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	34	NA	10	NA
Aldrin	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
Aroclor-1016	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Aroclor-1221	75 U	NA	72 U	NA	71 U	NA	74 U	NA	75 U	NA	75 U	NA	76 U	NA	81 U	NA	92 U	NA
Aroclor-1232	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Aroclor-1242	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Aroclor-1248	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Aroclor-1254	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Aroclor-1260	37 U	NA	35 U	NA	35 U	NA	37 U	NA	37 U	NA	37 U	NA	38 U	NA	40 U	NA	45 U	NA
Dieldrin	3.7 U	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	6.9	NA	4.5 U	NA
Endosulfan I	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
Endosulfan II	3.7 U	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA
Endosulfan sulfate	3.7 U	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA
Endrin	7.4	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA
Endrin aldehyde	3.7 U	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA
Endrin ketone	3.7 U	NA	3.5 U	NA	3.5 U	NA	3.7 U	NA	3.7 U	NA	3.7 U	NA	3.8 U	NA	4 U	NA	4.5 U	NA
Heptachlor	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
Heptachlor epoxide	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
Methoxychlor	19 U	NA	18 U	NA	18 U	NA	19 U	NA	19 U	NA	19 U	NA	19 U	NA	20 U	NA	23 U	NA
Toxaphene	190 U	NA	180 U	NA	180 U	NA	190 U	NA	190 U	NA	190 U	NA	190 U	NA	200 U	NA	230 U	NA
alpha-BHC	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
alpha-Chlordane	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
beta-BHC	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
delta-BHC	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
gamma-BHC (Lindane)	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
gamma-Chlordane	1.9 U	NA	1.8 U	NA	1.8 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	1.9 U	NA	2 U	NA	2.3 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 UJ	NA
4-Nitrotoluene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C03		MR04-C04		MR04-C05		MR04-C06		MR04-C07		MR04-C08		MR04-C09		MR04-C10		MR04-C11	
Sample ID	MR04-C03-0-1-07D	MR04-C03-07D	MR04-C04-0-1-07D	MR04-C04-07D	MR04-C05-0-1-07C	MR04-C05-07C	MR04-C06-0-1-07C	MR04-C06-07C	MR04-C07-0-1-07C	MR04-C07-07C	MR04-C08-0-1-07D	MR04-C08-07D	MR04-C09-0-1-07C	MR04-C09-07C	MR04-C10-0-1-07D	MR04-C10-07D	MR04-C11-0-1-07D	MR04-C11-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/21/07	10/21/07	09/11/07	09/11/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.7 U	NA	3.6 U	NA	2 J	NA	3.8 U	NA	2.7 J	NA	5.1 U	NA	1.2 J	NA	3.9 U	NA	4.7	NA
4,4'-DDE	34	NA	19	NA	39	NA	13	NA	87	NA	45 J	NA	24	NA	12	NA	57	NA
4,4'-DDT	25	NA	20	NA	28	NA	14	NA	100	NA	14	NA	21	NA	39	NA	170	NA
Aldrin	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 UJ	NA	2 U	NA	1.9 U	NA
Aroclor-1016	37 U	NA	36 U	NA	40 U	NA	38 U	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Aroclor-1221	76 U	NA	74 U	NA	81 U	NA	78 U	NA	88 U	NA	100 U	NA	73 U	NA	80 U	NA	74 U	NA
Aroclor-1232	37 U	NA	36 U	NA	40 U	NA	38 U	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Aroclor-1242	37 U	NA	36 U	NA	40 U	NA	38 U	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Aroclor-1248	37 U	NA	36 U	NA	40 U	NA	38 U	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Aroclor-1254	37 U	NA	36 U	NA	40 U	NA	38 U	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Aroclor-1260	37 U	NA	36 U	NA	40 U	NA	31 J	NA	43 U	NA	51 U	NA	36 U	NA	39 U	NA	37 U	NA
Dieldrin	3.7 U	NA	7.5	NA	4.8 J	NA	4.2	NA	4.8	NA	20	NA	3.6 U	NA	89	NA	3.7 U	NA
Endosulfan I	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA
Endosulfan II	3.7 U	NA	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 U	NA	3.9 U	NA	3.7 U	NA
Endosulfan sulfate	3.7 U	NA	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 U	NA	3.9 U	NA	3.7 U	NA
Endrin	3.7 U	NA	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 J	NA	3.9 U	NA	3.7 U	NA
Endrin aldehyde	3.7 U	NA	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 U	NA	3.9 U	NA	3.7 U	NA
Endrin ketone	3.7 U	NA	3.6 U	NA	4 U	NA	3.8 U	NA	4.3 U	NA	5.1 U	NA	3.6 U	NA	3.9 U	NA	3.7 U	NA
Heptachlor	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 UJ	NA	2 U	NA	1.9 U	NA
Heptachlor epoxide	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
Methoxychlor	19 U	NA	19 U	NA	20 U	NA	20 U	NA	22 U	NA	26 U	NA	19 U	NA	20 U	NA	19 U	NA
Toxaphene	190 U	NA	190 U	NA	200 U	NA	200 U	NA	220 U	NA	260 U	NA	190 U	NA	200 U	NA	190 U	NA
alpha-BHC	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	8.7 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
alpha-Chlordane	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	1.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
beta-BHC	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA
delta-BHC	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.6 U	NA	1.9 U	NA	2 U	NA	1.9 U	NA
gamma-BHC (Lindane)	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	2.7 J	NA	1.9 UJ	NA	2 U	NA	1.9 U	NA
gamma-Chlordane	1.9 U	NA	1.9 U	NA	2 U	NA	2 U	NA	2.2 U	NA	3.6 J	NA	1.9 U	NA	2 U	NA	1.9 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 UJ	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C12		MR04-C13		MR04-C14		MR04-C15		MR04-D01		MR04-D02				MR04-D03		MR04-D04	
Sample ID	MR04-C12-0-1-07D	MR04-C12-07D	MR04-C13-0-1-07D	MR04-C13-07D	MR04-C14-0-1-07D	MR04-C14-07D	MR04-C15-0-1-07D	MR04-C15-07D	MR04-D01-0-1-07D	MR04-D01-07D	MR04-D02-0-1-07D	MR04-D02-07D	MR04-D02D-0-1-07D	MR04-D02D-07D	MR04-D03-0-1-07D	MR04-D03-07D	MR04-D04-0-1-07D	MR04-D04-07D
Sample Date	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_KG)																		
4,4'-DDD	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	12	NA	5.3	NA	2.4 J	NA	3.6 U	NA
4,4'-DDE	21	NA	42	NA	46	NA	50	NA	9.6	NA	66	NA	63	NA	13	NA	18	NA
4,4'-DDT	10	NA	19	NA	23	NA	32	NA	9	NA	130	NA	76	NA	11	NA	21	NA
Aldrin	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.1 J	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
Aroclor-1016	37 U	NA	46 U	NA	54 U	NA	36 U	NA	36 U	NA	43 U	NA	49 U	NA	43 U	NA	36 U	NA
Aroclor-1221	75 U	NA	93 U	NA	110 U	NA	72 U	NA	73 U	NA	88 U	NA	100 U	NA	87 U	NA	73 U	NA
Aroclor-1232	37 U	NA	46 U	NA	54 U	NA	36 U	NA	36 U	NA	43 U	NA	49 U	NA	43 U	NA	36 U	NA
Aroclor-1242	37 U	NA	46 U	NA	54 U	NA	36 U	NA	36 U	NA	43 U	NA	49 U	NA	43 U	NA	36 U	NA
Aroclor-1248	37 U	NA	46 U	NA	54 U	NA	36 U	NA	36 U	NA	43 U	NA	49 U	NA	43 U	NA	36 U	NA
Aroclor-1254	37 U	NA	46 U	NA	54 U	NA	36 U	NA	36 U	NA	43 U	NA	49 U	NA	43 U	NA	36 U	NA
Aroclor-1260	37 U	NA	24 J	NA	54 U	NA	36 U	NA	36 U	NA	62	NA	48 J	NA	43 U	NA	36 U	NA
Dieldrin	3.7 U	NA	4.6 U	NA	5.4 U	NA	33	NA	1.9 J	NA	16	NA	11	NA	9.3 J	NA	4.6	NA
Endosulfan I	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
Endosulfan II	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.9 U	NA	4.3 U	NA	3.6 U	NA
Endosulfan sulfate	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.9 U	NA	4.3 U	NA	3.6 U	NA
Endrin	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.9 U	NA	4.3 U	NA	3.6 U	NA
Endrin aldehyde	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.8 U	NA	4.9 U	NA	4.3 U	NA	3.6 U	NA
Endrin ketone	3.7 U	NA	4.6 U	NA	5.4 U	NA	3.6 U	NA	3.6 U	NA	4.3 U	NA	4.9 U	NA	4.3 U	NA	3.6 U	NA
Heptachlor	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
Heptachlor epoxide	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
Methoxychlor	19 U	NA	24 U	NA	28 U	NA	18 U	NA	18 U	NA	22 U	NA	25 U	NA	22 U	NA	18 U	NA
Toxaphene	190 U	NA	240 U	NA	280 U	NA	180 U	NA	180 U	NA	220 U	NA	250 U	NA	220 U	NA	180 U	NA
alpha-BHC	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
alpha-Chlordane	1.1 J	NA	2.4 U	NA	2.8 U	NA	7.5 J	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 J	NA	1.8 U	NA
beta-BHC	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
delta-BHC	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
gamma-BHC (Lindane)	1.9 U	NA	2.4 U	NA	2.8 U	NA	1.8 U	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
gamma-Chlordane	1.9 U	NA	2.4 U	NA	2.8 U	NA	5.1	NA	1.8 U	NA	2.2 U	NA	2.5 U	NA	2.2 U	NA	1.8 U	NA
Explosives (UG_KG)																		
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 UJ	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D05		MR04-D06			
Sample ID	MR04-D05-0-1-07D	MR04-D05-07D	MR04-D06-0-1-07D	MR04-D06-07D	MR04-D06D-0-1-07D	MR04-D06D-07D
Sample Date	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name						
Pesticide/Polychlorinated Biphenyls (UG_KG)						
4,4'-DDD	3.7 U	NA	4.8 U	NA	4.3 U	NA
4,4'-DDE	6.9	NA	16	NA	9.8	NA
4,4'-DDT	7.1	NA	24	NA	10	NA
Aldrin	1.9 U	NA	2.5 U	NA	2.2 U	NA
Aroclor-1016	37 U	NA	48 U	NA	43 U	NA
Aroclor-1221	75 U	NA	97 U	NA	87 U	NA
Aroclor-1232	37 U	NA	48 U	NA	43 U	NA
Aroclor-1242	37 U	NA	48 U	NA	43 U	NA
Aroclor-1248	37 U	NA	48 U	NA	43 U	NA
Aroclor-1254	37 U	NA	48 U	NA	43 U	NA
Aroclor-1260	37 U	NA	48 U	NA	43 U	NA
Dieldrin	2.7 J	NA	6.8	NA	4.1 J	NA
Endosulfan I	1.9 U	NA	2.5 U	NA	2.2 U	NA
Endosulfan II	3.7 U	NA	4.8 U	NA	4.3 U	NA
Endosulfan sulfate	3.7 U	NA	4.8 U	NA	4.3 U	NA
Endrin	3.7 U	NA	4.8 U	NA	4.3 U	NA
Endrin aldehyde	3.7 U	NA	4.8 U	NA	4.3 U	NA
Endrin ketone	3.7 U	NA	4.8 U	NA	4.3 U	NA
Heptachlor	1.9 U	NA	2.5 U	NA	2.2 U	NA
Heptachlor epoxide	1.9 U	NA	2.5 U	NA	2.2 U	NA
Methoxychlor	19 U	NA	25 U	NA	22 U	NA
Toxaphene	190 U	NA	250 U	NA	220 U	NA
alpha-BHC	1.9 U	NA	2.5 U	NA	2.2 U	NA
alpha-Chlordane	1.9 U	NA	2.5 U	NA	2.2 U	NA
beta-BHC	1.9 U	NA	2.5 U	NA	2.2 U	NA
delta-BHC	1.9 U	NA	2.5 U	NA	2.2 U	NA
gamma-BHC (Lindane)	1.9 U	NA	2.5 U	NA	2.2 U	NA
gamma-Chlordane	1.9 U	NA	2.5 U	NA	2.2 U	NA
Explosives (UG_KG)						
1,3,5-Trinitrobenzene	120 U	NA	120 U	NA	120 U	NA
1,3-Dinitrobenzene	120 U	NA	120 U	NA	120 U	NA
2,4,6-Trinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2,4-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2,6-Dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2-Amino-4,6-dinitrotoluene	120 U	NA	120 U	NA	120 U	NA
2-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
3-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
4-Amino-2,6-dinitrotoluene	120 U	NA	120 UJ	NA	120 UJ	NA
4-Nitrotoluene	120 U	NA	120 U	NA	120 U	NA
HMX	120 U	NA	120 U	NA	120 U	NA
Nitrobenzene	120 U	NA	120 U	NA	120 U	NA
RDX	120 U	NA	120 U	NA	120 U	NA
Tetryl	120 U	NA	120 U	NA	120 U	NA

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-A01		MR04-A02		MR04-A03				MR04-A04		MR04-A05		MR04-B01		MR04-B02		MR04-B03	
Sample ID	MR04-A01-0-1-07D	MR04-A01-07D	MR04-A02-0-1-07D	MR04-A02-07D	MR04-A03-0-1-07D	MR04-A03-07D	MR04-A03D-0-1-07D	MR04-A03D-07D	MR04-A04-0-1-07D	MR04-A04-07D	MR04-A05-0-1-07D	MR04-A05-07D	MR04-B01-0-1-07D	MR04-B01-07D	MR04-B02-0-1-07D	MR04-B02-07D	MR04-B03-0-1-07D	MR04-B03-07D
Sample Date	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,770	NA	5,650	NA	4,040	NA	4,040	NA	2,950	NA	2,600	NA	3,710	NA	2,820	NA	4,400	NA
Antimony	4.9 UJ	NA	4.9 UJ	NA	5 UJ	NA	5.2 UJ	NA	4.8 UJ	NA	4.8 UJ	NA	5.9 UJ	NA	5.8 UJ	NA	5.8 UJ	NA
Arsenic	1.2	NA	1.2	NA	0.96	NA	0.97	NA	0.65 J	NA	0.61 J	NA	0.85 J	NA	1.1	NA	1.7	NA
Barium	11.4 J	NA	17.6	NA	12.9 J	NA	12.9 J	NA	10.6 J	NA	10.6 J	NA	12.5 J	NA	9.3 J	NA	10 J	NA
Beryllium	0.41 U	NA	0.41 U	NA	0.42 U	NA	0.43 U	NA	0.4 U	NA	0.4 U	NA	0.49 U	NA	0.49 U	NA	0.49 U	NA
Cadmium	0.063 J	NA	0.058 J	NA	0.04 J	NA	0.032 J	NA	0.039 J	NA	0.036 J	NA	0.26 J	NA	0.15 J	NA	0.059 J	NA
Calcium	984	NA	616	NA	179 J	NA	173 J	NA	155 J	NA	195 J	NA	726	NA	9,480	NA	7,480	NA
Chromium	4.8	NA	5.7	NA	3.7	NA	3.8	NA	2.8	NA	2.9	NA	3.9	NA	4	NA	6.3	NA
Cobalt	0.24 J	NA	0.33 J	NA	0.19 J	NA	0.2 J	NA	0.16 J	NA	0.17 J	NA	0.28 J	NA	0.2 J	NA	0.22 J	NA
Copper	1.2 J	NA	3.2	NA	1.6 J	NA	1.8 J	NA	1.3 J	NA	1.3 J	NA	4.3	NA	4.1	NA	1.2 J	NA
Cyanide	2.4 U	NA	2.2 U	NA	2.4 U	NA	2.5 U	NA	2.7 U	NA	2.5 U	NA	3.5 U	NA	3.2 U	NA	3.5 U	NA
Iron	3,230 J	NA	3,120 J	NA	1,850 J	NA	1,860 J	NA	1,460 J	NA	1,540 J	NA	1,990	NA	2,100	NA	3,680	NA
Lead	16.9	NA	18.4	NA	10.3	NA	9.9	NA	8.7	NA	20.3	NA	26.2	NA	21.6	NA	10.2	NA
Magnesium	169 J	NA	229 J	NA	159 J	NA	158 J	NA	139 J	NA	138 J	NA	122 J	NA	231 J	NA	259 J	NA
Manganese	19	NA	25.7	NA	22.5	NA	23.1	NA	23.7	NA	14.4	NA	13	NA	10.9	NA	9.2	NA
Mercury	0.034 J	NA	0.02 J	NA	0.041 J	NA	0.027 J	NA	0.012 J	NA	0.031 J	NA	0.048 J	NA	0.04 J	NA	0.15 U	NA
Nickel	1.2 J	NA	1.7 J	NA	1.2 J	NA	1.2 J	NA	0.96 J	NA	0.93 J	NA	1.4 J	NA	1.1 J	NA	1.2 J	NA
Potassium	125 J	NA	148 J	NA	99.7 J	NA	104 J	NA	86.3 J	NA	81.4 J	NA	105 J	NA	101 J	NA	167 J	NA
Selenium	2.8 U	NA	2.8 U	NA	2.9 U	NA	3 U	NA	2.8 U	NA	2.8 U	NA	3.5 U	NA	3.4 U	NA	3.4 U	NA
Silver	0.83 UJ	NA	0.82 UJ	NA	0.82 UJ	NA	0.87 UJ	NA	0.83 UJ	NA	0.81 UJ	NA	0.99 UJ	NA	0.97 UJ	NA	0.97 UJ	NA
Sodium	15.8 J	NA	19.1 J	NA	14.2 J	NA	12.2 J	NA	19 J	NA	18.2 J	NA	14 J	NA	23.5 J	NA	44.7 J	NA
Thallium	2 U	NA	2 U	NA	2.1 U	NA	2.2 U	NA	2 U	NA	2 U	NA	2.5 U	NA	2.4 U	NA	2.4 U	NA
Vanadium	8.9	NA	8.2	NA	6.1	NA	6	NA	4.6	NA	4.9	NA	5.7	NA	5.5	NA	9.8	NA
Zinc	10.4 J	NA	21.1 J	NA	4.4 J	NA	4.6 J	NA	4.6 J	NA	5.2 J	NA	233	NA	15.4	NA	4.8 J	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0022 U	NA	0.0022 U	NA	0.0023 U	NA	0.0023 U	NA	0.0022 U	NA	0.0022 U	NA	0.0029 U	NA	0.0028 U	NA	0.0029 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-B04		MR04-B05				MR04-B06				MR04-B07		MR04-B08		MR04-C01		MR04-C02	
Sample ID	MR04-B04-0-1-07C	MR04-B04-07C	MR04-B05-0-1-07D	MR04-B05-07D	MR04-B05D-0-1-07D	MR04-B05D-07D	MR04-B06-0-1-07D	MR04-B06-07D	MR04-B06D-0-1-07D	MR04-B06D-07D	MR04-B07-0-1-07D	MR04-B07-07D	MR04-B08-0-1-07D	MR04-B08-07D	MR04-C01-0-1-07D	MR04-C01-07D	MR04-C02-0-1-07D	MR04-C02-07D
Sample Date	09/11/07	09/11/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/22/07	10/21/07	10/21/07	10/22/07	10/22/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,310	NA	3,630	NA	3,820	NA	4,920	NA	4,870	NA	4,000	NA	3,830	NA	4,180	NA	4,080	NA
Antimony	5.1 UJ	NA	4.9 UJ	NA	4.8 UJ	NA	5 UJ	NA	5.1 UJ	NA	4.9 UJ	NA	5.2 UJ	NA	0.46 J	NA	0.35 J	NA
Arsenic	1.2 U	NA	1.1	NA	1.2	NA	1.4	NA	1.3	NA	0.94	NA	0.72 J	NA	1.8	NA	1.5	NA
Barium	74.8 J	NA	9 J	NA	8.8 J	NA	11.6 J	NA	11.3 J	NA	12.4 J	NA	13.8 J	NA	16.1 J	NA	17.5 J	NA
Beryllium	0.018 J	NA	0.41 U	NA	0.4 U	NA	0.41 U	NA	0.42 U	NA	0.41 U	NA	0.44 U	NA	0.1 J	NA	0.069 J	NA
Cadmium	0.044 J	NA	0.065 J	NA	0.055 J	NA	0.042 J	NA	0.051 J	NA	0.41 U	NA	0.039 J	NA	0.43 U	NA	0.5 U	NA
Calcium	21,400 J	NA	11,200	NA	27,600	NA	229 J	NA	207 J	NA	171 J	NA	118 J	NA	6,350	NA	4,710	NA
Chromium	4	NA	4.4	NA	4.7	NA	5.4	NA	5.1	NA	3.9	NA	3.6	NA	5.4	NA	5	NA
Cobalt	0.16 J	NA	0.25 J	NA	0.22 J	NA	0.27 J	NA	0.29 J	NA	0.22 J	NA	0.2 J	NA	0.29 J	NA	0.23 J	NA
Copper	1.5 J	NA	0.92 J	NA	0.95 J	NA	1.4 J	NA	1.2 J	NA	1 J	NA	1.1 J	NA	3.2	NA	3.4	NA
Cyanide	2.3 U	NA	2.7 U	NA	2.3 U	NA	2.8 U	NA	0.1 J	NA	2.7 U	NA	2.4 U	NA	2.5 U	NA	2.9 U	NA
Iron	1,990	NA	2,030 J	NA	2,060 J	NA	3,150 J	NA	2,960 J	NA	2,040 J	NA	2,000 J	NA	2,940	NA	2,530	NA
Lead	13.1	NA	6.1	NA	5.9	NA	9.2	NA	9	NA	8.9	NA	10	NA	50	NA	103	NA
Magnesium	402 J	NA	309 J	NA	503	NA	210 J	NA	204 J	NA	168 J	NA	160 J	NA	249 J	NA	205 J	NA
Manganese	15.6 J	NA	17	NA	18.5	NA	12.9	NA	12.9	NA	11.9	NA	9	NA	19.9	NA	14.5	NA
Mercury	0.22 U	NA	0.015 J	NA	0.024 J	NA	0.029 J	NA	0.033 J	NA	0.045 J	NA	0.013 J	NA	0.1 U	NA	0.036 J	NA
Nickel	1 J	NA	1.2 J	NA	1.4 J	NA	1.2 J	NA	1.2 J	NA	1.1 J	NA	0.94 J	NA	1.9 J	NA	1.7 J	NA
Potassium	139 J	NA	133 J	NA	150 J	NA	158 J	NA	168 J	NA	115 J	NA	89.3 J	NA	120 J	NA	126 J	NA
Selenium	0.51 J	NA	2.8 U	NA	2.8 U	NA	2.9 U	NA	3 U	NA	2.9 U	NA	3 U	NA	0.27 J	NA	0.25 J	NA
Silver	0.86 U	NA	0.79 UJ	NA	0.8 UJ	NA	0.84 UJ	NA	0.84 UJ	NA	0.86 UJ	NA	0.87 UJ	NA	0.87 U	NA	1 U	NA
Sodium	38.3 J	NA	29.5 J	NA	57.9 J	NA	16.8 J	NA	14.9 J	NA	18.6 J	NA	37.7 J	NA	23 J	NA	28.5 J	NA
Thallium	2.1 U	NA	2 U	NA	2 U	NA	2.1 U	NA	2.1 U	NA	2 U	NA	2.2 U	NA	2.2 U	NA	2.5 U	NA
Vanadium	6.4	NA	6.2	NA	6.2	NA	9.3	NA	8.9	NA	6.8	NA	5.2	NA	8.8	NA	6.7	NA
Zinc	14.8	NA	5.7 J	NA	5.8 J	NA	4.9 J	NA	5.1 J	NA	4 J	NA	6 J	NA	38.2	NA	58.9	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0023 U	NA	0.0022 U	NA	0.0021 U	NA	0.0022 U	NA	0.0022 U	NA	0.0022 U	NA	0.0023 U	NA	0.0024 U	NA	0.0027 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C03		MR04-C04		MR04-C05		MR04-C06		MR04-C07		MR04-C08		MR04-C09		MR04-C10		MR04-C11	
Sample ID	MR04-C03-0-1-07D	MR04-C03-07D	MR04-C04-0-1-07D	MR04-C04-07D	MR04-C05-0-1-07C	MR04-C05-07C	MR04-C06-0-1-07C	MR04-C06-07C	MR04-C07-0-1-07C	MR04-C07-07C	MR04-C08-0-1-07D	MR04-C08-07D	MR04-C09-0-1-07C	MR04-C09-07C	MR04-C10-0-1-07D	MR04-C10-07D	MR04-C11-0-1-07D	MR04-C11-07D
Sample Date	10/20/07	10/20/07	10/20/07	10/20/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	10/21/07	10/21/07	09/11/07	09/11/07	10/21/07	10/21/07	10/21/07	10/21/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	3,970	NA	5,280	NA	4,410	NA	3,000	NA	3,490	NA	3,730	NA	2,720	NA	4,170	NA	5,040	NA
Antimony	5.1 U	NA	0.81 J	NA	0.62 J	NA	0.36 J	NA	0.46 J	NA	7.1 UJ	NA	5.1 UJ	NA	5.5 UJ	NA	4.4 UJ	NA
Arsenic	1.2	NA	1.5	NA	1.3	NA	0.96	NA	1.2	NA	1.6	NA	1.2 U	NA	2.7	NA	3	NA
Barium	14.4 J	NA	20.6	NA	38.1	NA	17.2 J	NA	12 J	NA	14.8 J	NA	11.2 J	NA	17.2 J	NA	15.6	NA
Beryllium	0.074 J	NA	0.1 J	NA	0.075 J	NA	0.044 J	NA	0.048 J	NA	0.59 U	NA	0.017 J	NA	0.46 U	NA	0.37 U	NA
Cadmium	0.43 U	NA	0.4 U	NA	0.35 J	NA	0.43 U	NA	0.24 J	NA	0.18 J	NA	0.067 J	NA	0.11 J	NA	0.05 J	NA
Calcium	12,500	NA	5,450	NA	16,200	NA	5,710	NA	23,600	NA	9,520	NA	25,300 J	NA	30,900	NA	482	NA
Chromium	4.4	NA	6.1	NA	6 J	NA	6.2 J	NA	4.4 J	NA	4.7	NA	4.1	NA	10.6	NA	10.1	NA
Cobalt	0.25 J	NA	0.32 J	NA	0.32 J	NA	0.23 J	NA	0.21 J	NA	0.28 J	NA	0.18 J	NA	0.3 J	NA	0.47 J	NA
Copper	2.6	NA	4.4	NA	4.7	NA	2.7	NA	1.8 J	NA	7	NA	1.8 J	NA	2 J	NA	3.8	NA
Cyanide	2.8 U	NA	2.7 U	NA	2.9 U	NA	2.6 U	NA	2.8 U	NA	3.5 U	NA	2.7 U	NA	2.7 U	NA	0.15 J	NA
Iron	2,460	NA	2,920	NA	2,570	NA	1,830	NA	1,960	NA	3,190	NA	1,660	NA	9,470	NA	7,080	NA
Lead	27	NA	25.1	NA	63.6	NA	56.6	NA	28.2	NA	17.4	NA	35.6	NA	29.8	NA	29.7	NA
Magnesium	335 J	NA	265 J	NA	416 J	NA	202 J	NA	477 J	NA	275 J	NA	516	NA	552	NA	208 J	NA
Manganese	15.1	NA	18.2	NA	22.2 J	NA	15.5 J	NA	21.9 J	NA	18.5	NA	12.1 J	NA	18.8	NA	7.9	NA
Mercury	0.032 J	NA	0.064 J	NA	0.38	NA	0.029 J	NA	0.016 J	NA	0.047 J	NA	0.079 U	NA	0.044 J	NA	0.027 J	NA
Nickel	1.4 J	NA	1.7 J	NA	1.7 J	NA	2.2 J	NA	1.5 J	NA	2.1 J	NA	1.2 J	NA	1.3 J	NA	1.7 J	NA
Potassium	131 J	NA	174 J	NA	169 J	NA	112 J	NA	152 J	NA	136 J	NA	130 J	NA	203 J	NA	223 J	NA
Selenium	0.36 J	NA	0.39 J	NA	0.55 J	NA	3 U	NA	0.39 J	NA	4.1 U	NA	0.48 J	NA	0.59 J	NA	0.33 J	NA
Silver	0.85 U	NA	0.8 U	NA	0.9 U	NA	0.86 U	NA	0.98 U	NA	1.2 UJ	NA	0.84 U	NA	0.91 UJ	NA	0.74 UJ	NA
Sodium	46.6 J	NA	26.1 J	NA	42.7 J	NA	26 J	NA	56.6 J	NA	28.4 J	NA	57 J	NA	37.6 J	NA	14.6 J	NA
Thallium	2.1 U	NA	2 U	NA	2.3 U	NA	2.2 U	NA	2.5 U	NA	2.9 U	NA	2.1 U	NA	2.3 U	NA	1.8 U	NA
Vanadium	7.1	NA	7.9	NA	7.3	NA	5.6	NA	6.4	NA	6.1	NA	5.6	NA	18.4	NA	19.3	NA
Zinc	44.2	NA	60.6	NA	98.4	NA	33.8	NA	36.3	NA	21.5	NA	14.3	NA	11.9	NA	23.6	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0023 U	NA	0.0022 U	NA	0.0024 U	NA	0.0023 U	NA	0.0026 U	NA	0.0031 U	NA	0.0022 U	NA	0.0024 U	NA	0.0022 U	NA

Notes:
U- Analyte not detected
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Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-C12		MR04-C13		MR04-C14		MR04-C15		MR04-D01		MR04-D02				MR04-D03		MR04-D04	
Sample ID	MR04-C12-0-1-07D	MR04-C12-07D	MR04-C13-0-1-07D	MR04-C13-07D	MR04-C14-0-1-07D	MR04-C14-07D	MR04-C15-0-1-07D	MR04-C15-07D	MR04-D01-0-1-07D	MR04-D01-07D	MR04-D02-0-1-07D	MR04-D02-07D	MR04-D02D-0-1-07D	MR04-D02D-07D	MR04-D03-0-1-07D	MR04-D03-07D	MR04-D04-0-1-07D	MR04-D04-07D
Sample Date	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/21/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07	10/19/07
Chemical Name																		
Total Metals (MG_KG)																		
Aluminum	4,740	NA	5,800	NA	4,640	NA	3,800	NA	5,080	NA	4,520	NA	4,780	NA	5,340	NA	4,300	NA
Antimony	5.1 UJ	NA	6.3 UJ	NA	6.5 UJ	NA	4.8 UJ	NA	4.9 UJ	NA	5.7 UJ	NA	6.9 UJ	NA	5.7 UJ	NA	4.9 UJ	NA
Arsenic	1.8	NA	2.1	NA	1.8	NA	2.6	NA	1.8	NA	1	NA	1.3	NA	0.78 J	NA	0.72 J	NA
Barium	15.5 J	NA	21.8	NA	13.9 J	NA	10.1 J	NA	25.4	NA	14.8 J	NA	15.4 J	NA	17.1 J	NA	22.6	NA
Beryllium	0.42 U	NA	0.53 U	NA	0.55 U	NA	0.4 U	NA	0.073 J	NA	0.058 J	NA	0.051 J	NA	0.064 J	NA	0.059 J	NA
Cadmium	0.1 J	NA	0.15 J	NA	0.091 J	NA	0.057 J	NA	0.23 J	NA	0.48 U	NA	0.57 U	NA	0.48 U	NA	0.4 U	NA
Calcium	974	NA	1,900	NA	6,150	NA	1,790	NA	6,800	NA	1,340	NA	1,530	NA	1,410	NA	1,120	NA
Chromium	5.5	NA	7	NA	5.8	NA	6.4	NA	7.2	NA	6.5	NA	6.4	NA	7.4	NA	7.3	NA
Cobalt	0.27 J	NA	0.38 J	NA	0.29 J	NA	0.29 J	NA	0.31 J	NA	0.29 J	NA	0.29 J	NA	0.32 J	NA	0.24 J	NA
Copper	2.7	NA	2.9	NA	2.4 J	NA	2	NA	2.8	NA	3.4	NA	3.3	NA	5.9	NA	2 U	NA
Cyanide	2.5 U	NA	3.5 U	NA	4 U	NA	2.6 U	NA	2.5 U	NA	3 U	NA	3.4 U	NA	3 U	NA	2.4 U	NA
Iron	3,570	NA	4,050	NA	3,300	NA	3,390	NA	4,020	NA	3,480	NA	3,420	NA	3,610	NA	2,380	NA
Lead	21.6	NA	31.7	NA	30.8	NA	13.4	NA	28.3 J	NA	35 J	NA	35.2 J	NA	51.3 J	NA	52.5 J	NA
Magnesium	180 J	NA	238 J	NA	396 J	NA	173 J	NA	289 J	NA	195 J	NA	206 J	NA	206 J	NA	176 J	NA
Manganese	14.4	NA	19.3	NA	13.3	NA	8.8	NA	15.3	NA	14.2	NA	14	NA	14.3	NA	12.8	NA
Mercury	0.042 J	NA	0.048 J	NA	0.04 J	NA	0.018 J	NA	0.021 J	NA	0.44 U	NA	0.059 J	NA	0.051 J	NA	0.034 J	NA
Nickel	1.4 J	NA	1.7 J	NA	1.2 J	NA	2.5 J	NA	1.5 J	NA	1.4 J	NA	1.5 J	NA	1.6 J	NA	1.3 J	NA
Potassium	165 J	NA	184 J	NA	210 J	NA	155 J	NA	189 J	NA	181 J	NA	198 J	NA	163 J	NA	115 J	NA
Selenium	0.4 J	NA	0.29 J	NA	0.34 J	NA	0.23 J	NA	2.9 U	NA	3.3 U	NA	4 U	NA	3.3 U	NA	2.8 U	NA
Silver	0.85 UJ	NA	1 UJ	NA	1.1 UJ	NA	0.8 UJ	NA	0.82 U	NA	0.95 U	NA	1.1 U	NA	0.96 U	NA	0.81 U	NA
Sodium	18.8 J	NA	58.7 J	NA	419 J	NA	24.7 J	NA	28.3 J	NA	22.2 J	NA	23.7 J	NA	24.7 J	NA	24.6 J	NA
Thallium	2.1 U	NA	2.6 U	NA	2.7 U	NA	2 U	NA	2 U	NA	2.4 U	NA	2.9 U	NA	2.4 U	NA	2 U	NA
Vanadium	10.1	NA	10.9	NA	8.6	NA	11.1	NA	9.2	NA	8.2	NA	8.5	NA	9.4	NA	7	NA
Zinc	24.5	NA	28.7	NA	11.5	NA	8.2	NA	58.4	NA	45.3	NA	40	NA	40.5	NA	44	NA
Wet Chemistry (MG_KG)																		
Perchlorate	0.0022 U	NA	0.0028 U	NA	0.0024 U	NA	0.0027 U	NA	0.0022 U	NA	0.0026 U	NA	0.003 U	NA	0.0026 U	NA	0.0022 U	NA

Notes:
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Shading represents detection

Phase II Surface Soil Raw Analytical Results
Decision Units A01 - D06
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-D05		MR04-D06			
Sample ID	MR04-D05-0-1-07D	MR04-D05-07D	MR04-D06-0-1-07D	MR04-D06-07D	MR04-D06D-0-1-07D	MR04-D06D-07D
Sample Date	10/19/07	10/19/07	10/20/07	10/20/07	10/20/07	10/20/07
Chemical Name						
Total Metals (MG_KG)						
Aluminum	4,190	NA	4,860	NA	3,630	NA
Antimony	5 UJ	NA	0.34 J	NA	5.9 U	NA
Arsenic	0.71 J	NA	1.3	NA	1.2	NA
Barium	22.7	NA	32.1	NA	23.7	NA
Beryllium	0.058 J	NA	0.09 J	NA	0.061 J	NA
Cadmium	0.42 U	NA	0.54 U	NA	0.49 U	NA
Calcium	12,000	NA	1,630	NA	1,230	NA
Chromium	4.6	NA	5	NA	3.9	NA
Cobalt	0.27 J	NA	0.38 J	NA	0.23 J	NA
Copper	2.5	NA	2.1 J	NA	1.5 J	NA
Cyanide	2.8 U	NA	3.2 U	NA	3.2 U	NA
Iron	2,190	NA	3,240	NA	2,180	NA
Lead	22 J	NA	34.2	NA	25.3	NA
Magnesium	336 J	NA	199 J	NA	145 J	NA
Manganese	19	NA	17.8	NA	13.3	NA
Mercury	0.68	NA	0.019 J	NA	0.021 J	NA
Nickel	1.3 J	NA	1.5 J	NA	1.1 J	NA
Potassium	127 J	NA	126 J	NA	103 J	NA
Selenium	2.9 U	NA	0.28 J	NA	0.34 J	NA
Silver	0.84 U	NA	1.1 U	NA	0.98 U	NA
Sodium	39.5 J	NA	22.3 J	NA	21.7 J	NA
Thallium	2.1 U	NA	2.7 U	NA	2.4 U	NA
Vanadium	5.9	NA	7.7	NA	5.8	NA
Zinc	68.2	NA	73.7	NA	56.1	NA
Wet Chemistry (MG_KG)						
Perchlorate	0.0022 U	NA	0.0029 U	NA	0.0026 U	NA

Notes:
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UJ- Analyte not detected. Quantitation limit is imprecise
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Shading represents detection

Phase I Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Volatile Organic Compounds (UG/KG)											
1,1,1-Trichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2,2-Tetrachloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1,2-Trichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1-Dichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,1-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2,4-Trichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dibromo-3-chloropropane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dibromoethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,2-Dichloropropane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,3-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
1,4-Dichlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
2-Butanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
2-Hexanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
4-Methyl-2-pentanone	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Acetone	13 U	9.8 U	10 U	12	10 U	11 U	11 U	9.5 U	12 J	13 U	11 U
Benzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromodichloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromoform	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Bromomethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Carbon disulfide	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Carbon tetrachloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chlorobenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloroethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloroform	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Chloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Cumene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Cyclohexane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Dibromochloromethane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Dichlorodifluoromethane (Freon-12)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Ethylbenzene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methyl acetate	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methyl-tert-butyl ether (MTBE)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methylcyclohexane	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Methylene chloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Styrene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Tetrachloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Toluene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Trichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Trichlorofluoromethane(Freon-11)	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Vinyl chloride	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
Xylene, total	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
cis-1,2-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
cis-1,3-Dichloropropene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
trans-1,2-Dichloroethene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U
trans-1,3-Dichloropropene	13 U	9.8 U	10 U	11 U	10 U	11 U	11 U	9.5 U	15 U	13 U	11 U

Phase I Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Semi-volatile Organic Compounds (UG/KG)											
1,1-Biphenyl	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4,5-Trichlorophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
2,4,6-Trichlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dichlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dimethylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2,4-Dinitrophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
2-Chloronaphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Chlorophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Methylnaphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
2-Nitroaniline	1,000 UJ	980 UJ	910 UJ	1,000 UJ	980 UJ	960 UJ	1,100 UJ	970 U	980 UJ	1,100 UJ	940 UJ
2-Nitrophenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
3,3'-Dichlorobenzidine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
3-Nitroaniline	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4,6-Dinitro-2-methylphenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4-Bromophenyl-phenylether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chloro-3-methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chloroaniline	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Chlorophenyl-phenylether	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 UJ	380 UJ
4-Methylphenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
4-Nitroaniline	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
4-Nitrophenol	1,000 U	980 U	910 U	1,000 U	980 U	960 U	1,100 U	970 U	980 U	1,100 U	940 U
Acenaphthene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Acenaphthylene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Acetophenone	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Anthracene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Atrazine	410 R	390 R	370 R	400 R	390 R	390 R	25,000 R	390 U	390 R	440 R	380 R
Benzaldehyde	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(a)anthracene	410 U	390 U	370 U	400 U	390 U	41 U	420 U	390 U	390 U	440 U	380 U
Benzo(a)pyrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(b)fluoranthene	410 U	390 U	370 U	400 U	390 U	46 U	420 U	390 U	390 U	440 U	380 U
Benzo(g,h,i)perylene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Benzo(k)fluoranthene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Butylbenzylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Caprolactam	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 UJ	380 UJ
Carbazole	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Chrysene	410 U	390 U	370 U	400 U	390 U	40 U	420 U	390 U	390 U	440 U	380 U
Di-n-butylphthalate	410 U	100 J	62 J	400 U	390 U	390 U	420 U	390 U	390 U	440 U	43 J
Di-n-octylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dibenz(a,h)anthracene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dibenzofuran	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Diethylphthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Dimethyl phthalate	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Fluoranthene	410 U	390 U	370 U	400 U	390 U	70	420 U	390 U	390 U	440 U	380 U
Fluorene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Hexachlorobenzene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 UJ	380 U
Hexachlorobutadiene	410 UJ	390 UJ	370 UJ	400 UJ	390 UJ	390 UJ	420 UJ	390 U	390 UJ	440 U	380 UJ
Hexachlorocyclopentadiene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Hexachloroethane	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Indeno(1,2,3-cd)pyrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Isophorone	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Naphthalene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Pentachlorophenol	1,000 UJ	980 UJ	910 UJ	1,000 UJ	980 UJ	960 U	1,100 UJ	970 U	980 UJ	1,100 UJ	940 UJ
Phenanthrene	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Phenol	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
Pyrene	410 U	390 U	370 U	400 U	390 U	79 J	420 U	390 U	390 U	440 U	380 U
bis(2-Chloro-1-methylethyl) ether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Chloroethoxy)methane	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Chloroethyl)ether	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
bis(2-Ethylhexyl)phthalate	410 U	91 J	260 J	230 J	72 J	390 U	200 J	240 J	93 J	90 J	360 J
n-Nitroso-di-n-propylamine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U
n-Nitrosodiphenylamine	410 U	390 U	370 U	400 U	390 U	390 U	420 U	390 U	390 U	440 U	380 U

Phase I Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SS01	MR04-SS02	MR04-SS03	MR04-SS04	MR04-SS05		MR04-SS06	MR04-SS07	MR04-SS08	MR04-SS09	MR04-SS10
Sample ID	MR04-SS01-0-4	MR04-SS02-0-2	MR04-SS03-8-12	MR04-SS04-0-2	MR04-SS05-0-4	MR04-SS05-0-4D	MR04-SS06-2-4	MR04-SS07-4-6	MR04-SS08-0-2	MR04-SS09-2-4	MR04-SS10-0-2
Sample Date	03/14/06	03/15/06	03/15/06	03/13/06	03/15/06	03/15/06	03/14/06	03/15/06	03/14/06	03/15/06	03/14/06
Chemical Name											
Pesticide/Polychlorinated Biphenyls (UG/KG)											
4,4'-DDD	4.1 U	7.3	9.8	2.4 J	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
4,4'-DDE	0.78 J	240	63	120	3.9 U	0.52 J	4.2 U	0.72 J	3.5 J	4.4 U	3.8 U
4,4'-DDT	0.78 J	110 J	34	53	3.9 U	0.4 J	4.2 U	0.49 J	1.1 J	4.4 U	1.1 J
Aldrin	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Aroclor-1016	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1221	83 U	78 U	73 U	80 U	78 U	77 U	85 U	77 U	78 U	88 U	75 U
Aroclor-1232	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1242	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1248	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1254	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Aroclor-1260	41 U	39 U	37 U	40 U	39 U	39 U	42 U	39 U	39 U	44 U	38 U
Dieldrin	4.1 U	7.4	1.7 J	1.2 J	3.9 U	3.9 U	4.2 U	0.54 J	3.9 U	4.4 U	3.8 U
Endosulfan I	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Endosulfan II	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endosulfan sulfate	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endrin	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	0.65 J	3.9 U	4.4 U	3.8 U
Endrin aldehyde	4.1 U	3.9 U	3.7 U	0.29 J	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	3.8 U
Endrin ketone	4.1 U	3.9 U	3.7 U	4 U	3.9 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	0.6 J
Heptachlor	0.26 J	2 U	0.22 J	2 U	2 U	1.9 U	2.1 U	0.49 J	0.25 J	2.2 U	1.9 U
Heptachlor epoxide	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Methoxychlor	21 U	20 U	18 U	20 U	20 U	19 U	21 U	19 U	20 U	22 U	19 U
Toxaphene	210 U	200 U	180 U	200 U	200 U	190 U	210 U	190 U	200 U	220 U	190 U
alpha-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
alpha-Chlordane	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
beta-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
delta-BHC	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
gamma-BHC (Lindane)	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
gamma-Chlordane	2.1 U	2 U	1.8 U	2 U	2 U	1.9 U	2.1 U	1.9 U	2 U	2.2 U	1.9 U
Explosives (UG/KG)											
1,3,5-Trinitrobenzene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
1,3-Dinitrobenzene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,4,6-Trinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,4-Dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2,6-Dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2-Amino-4,6-dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
2-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
3-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
4-Amino-2,6-dinitrotoluene	100 UJ	100 U	100 U	99 U	100 U	100 U	99 U	100 U	100 UJ	99 U	100 UJ
4-Nitrotoluene	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
HMX	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Nitrobenzene	110 J	20 J	68 J	66 J	100	100 U	57 J	100 U	74 J	100	100 UJ
Perchlorate	30 U	29 U	26 U	29 U	29 U	28 U	31 U	28 U	28 U	31 U	28 U
RDX	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Tetryl	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 UJ
Total Metals (MG/KG)											
Aluminum	8,580	11,300	2,890	5,460	9,110	9,630	15,000	6,860	19,100	26,300	2,640
Antimony	0.61 UJ	0.59 U	0.54 U	0.56 UJ	0.47 U	0.57 U	0.65 J	0.59 U	0.56 UJ	0.65 U	0.55 UJ
Arsenic	1.9 UJ	0.94 J	0.49 U	0.62 J	4.2	2.8	1.1 J	1.5 J	4.6 J-	2.3	1.7 UJ
Barium	39.4	36.9 U	33.5 U	34.8 U	29.7 U	35.5 U	33.8 U	36.7 U	35.3 U	40.9 U	34.1 U
Beryllium	0.95 U	0.067 J	0.053 J	0.87 U	0.084 J	0.35 J	0.84 U	0.084 J	0.88 U	0.3 J	0.85 U
Cadmium	0.076 U	0.074 U	0.067 U	0.07 U	0.059 U	0.071 U	0.068 U	0.073 U	0.071 U	0.082 U	0.068 U
Calcium	2,530	5,110	837 U	1,960	887	1,890	944	919 U	1,940	1,020 U	852 U
Chromium	6.2	12.6 J	7.5 J	5.3	10.3 J	10.6 J	23.2	7 J	28.7	37.1 J	3.1
Cobalt	0.17 U	0.27 J	0.15 U	0.16 U	0.13 U	0.16 U	0.22 J	0.17 U	0.41 J	0.85 J	0.15 U
Copper	2.1 J	0.94 J	0.72 J	1.5 J	0.57 J	0.8 J	2 J	0.83 J	1.7 J	4.1 J	1.4 J
Cyanide	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.17 U	0.21 U	0.17 U	0.18 U	0.2 U	0.18 U
Iron	4,120	5,640 J	1,080 J	3,430	10,300 J	8,330 J	9,380	4,020 J	18,300	9,130 J	1,710
Lead	10	12.7 J	4.8 J	12.7	6.2 J	17.6 J	11.1	5.8 J	10.7	15 J	3.9
Magnesium	948 U	923 U	837 U	871 U	741 U	888 U	845 U	919 U	881 U	1,110	852 U
Manganese	9	9.5	7	10.7	6.5	9.2	7.6	7.9	8.9	13.7	3.5
Mercury	0.057	0.023 J	0.015 U	0.031 J	0.017 J	0.029 J	0.014 U	0.028 J	0.03 J	0.033 J	0.023 J
Nickel	1.1 J	1.8 J	0.45 J	1.1 J	1 J	1.2 J	1.3 J	1.3 J	2.2 J	3.2 J	0.43 J
Potassium	948 U	256 J	118 J	871 U	249 J	229 J	845 U	188 J	881 U	1,240 J	852 U
Selenium	0.59 U	0.68 J	0.52 U	0.57 J	0.7 J	0.55 U	0.52 U	0.57 U	0.81 J	0.63 U	0.53 U
Silver	0.13 U	0.13 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.13 U	0.12 U	0.14 U	0.12 U
Sodium	75.4 J	923 U	837 U	80.5 J	31.8 U	888 U	89.3 J	919 U	107 J	1,020 U	73.2 J
Thallium	1.9 UJ	1.8 UJ	1.7 UJ	1.7 UJ	1.5 UJ	1.8 UJ	1.7 UJ	1.8 UJ	1.8 UJ	2 UJ	1.7 UJ
Vanadium	9.1 J	16.5 J	5.2 J	9.1	20.2 J	17.1 J	31.3	10.5 J	38.3	40.4 J	4.5 J
Zinc	3.8 U	7.9 J	3.3 UJ	9.6	12.1 J	17.7 J	5.3	3.9 J	9.2	11 J	3.4 U
Wet Chemistry (MG/KG)											
% Solids	80	85	91	83	85	86	79	86	85	76	89
Total organic carbon (TOC)	43,000	2,200	2,000	14,000	5,600	6,500	1,800	4,800	21,000	2,100	3,400
Total organic halogens (TOX)	31 UJ	29 UJ	27 UJ	30 UJ	30 UJ	30 UJ	31 UJ	30 UJ	30 UJ	32 UJ	29 UJ
pH	7.2	7.1	6	7.1	6.5	6.8	5.2	5.2	6.2	4.3	4.6
Total Petroleum Hydrocarbons (MG/KG)											
Oil and Grease	310 U	290 U	260 U	290 U	280 U	280 U	310 U	280 U	280 U	320 U	280 U
TPH-diesel range	4.1	14 J	2.8 J	5.1	2 UJ	1.9 UJ	2.1 U	1.9 UJ	3.6	2.2 UJ	3.2
TPH-gas range	0.12 U	0.12	0.052 J	0.06 J	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.11 U

Notes:
U- Analyte not detected
J- Reported value is estimated
J+- Reported value is estimated biased high
R- Unreliable result
UJ- Analyte not detected. Quanitation limit is imprecise
VOCs- Volatile Organic Compounds
SVOCs- Semi-volatile Organic Compounds
PEST/PCBs- Pesticide/Polychlorinated Biphenyls
TPH- Total Petroleum Hydrocarbons

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS11		MR04-IS12		MR04-IS13	MR04-IS14	MR04-IS15	MR04-IS16	MR04-IS17	MR04-IS18	MR04-IS19	MR04-IS20	MR04-IS21
Sample ID	MR04-IS11-2-4-07C	MR04-IS11D-2-4-07C	MR04-IS12-18-20-07C	MR04-IS12D-18-20-07C	MR04-IS13-12-14-07C	MR04-IS14-8-10-07C	MR04-IS15-13-15-07C	MR04-IS16-7-9-07C	MR04-IS17-9-11-07C	MR04-IS18-7-9-07C	MR04-IS19-7-9-07C	MR04-IS20-7-9-07C	MR04-IS21-8-10-07C
Sample Date	09/13/07	09/13/07	09/13/07	09/13/07	09/12/07	09/13/06	09/12/07	09/11/07	09/12/07	09/11/07	09/12/07	09/12/07	09/12/07
Chemical Name													
Volatile Organic Compounds (UG_KG)													
1,1,1-Trichloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,1,2,2-Tetrachloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,1,2-Trichloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,1-Dichloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,1-Dichloroethene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2,4-Trichlorobenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2-Dibromo-3-chloropropane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2-Dibromoethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2-Dichlorobenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2-Dichloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,2-Dichloropropane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,3-Dichlorobenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
1,4-Dichlorobenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
2-Butanone	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 UJ	12 U	16 UJ	14 UJ	13 UJ
2-Hexanone	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
4-Methyl-2-pentanone	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Acetone	9 UJ	9 UJ	12 UJ	12 UJ	13 UJ	13 UJ	11 UJ	10 UJ	12 UJ	12 UJ	16 UJ	14 UJ	13 UJ
Benzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Bromodichloromethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Bromoform	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Bromomethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Carbon disulfide	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Carbon tetrachloride	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Chlorobenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Chloroethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Chloroform	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Chloromethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Cyclohexane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Dibromochloromethane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Dichlorodifluoromethane (Freon-12)	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Ethylbenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Isopropylbenzene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Methyl acetate	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Methyl-tert-butyl ether (MTBE)	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Methylcyclohexane	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Methylene chloride	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Styrene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Tetrachloroethene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Toluene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Trichloroethene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Trichlorofluoromethane(Freon-11)	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Vinyl chloride	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
Xylene, total	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
cis-1,2-Dichloroethene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
cis-1,3-Dichloropropene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
trans-1,2-Dichloroethene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U
trans-1,3-Dichloropropene	9 U	9 U	12 U	12 U	13 UJ	13 U	11 U	10 U	12 U	12 U	16 U	14 U	13 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS22	MR04-IS23	MR04-IS24	MR04-IS25	MR04-IS26	MR04-IS27	MR04-IS28	MR04-IS29	MR04-IS30	MR04-IS31	MR04-IS32		MR04-IS33	MR04-IS34
Sample ID	MR04-IS22-7-9-07C	MR04-IS23-7-10-07C	MR04-IS24-9-11-07C	MR04-IS25-9-11-07C	MR04-IS26-12-14-07C	MR04-IS27-9-11-07C	MR04-IS28-9-11-07C	MR04-IS29-10-12-07C	MR04-IS30-10-12-07C	MR04-IS31-2-4-07C	MR04-IS32-12-14-07C	MR04-IS32D-12-14-07C	MR04-IS33-12-14-07C	MR04-IS34-13-15-07C
Sample Date	09/12/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/12/07	09/12/07	09/12/07	09/12/07	09/12/07
Chemical Name														
Volatile Organic Compounds (UG_KG)														
1,1,1-Trichloroethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,1,2,2-Tetrachloroethane	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,1,2-Trichloroethane	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,1-Dichloroethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,1-Dichloroethene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,2,4-Trichlorobenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,2-Dibromo-3-chloropropane	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,2-Dibromoethane	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,2-Dichlorobenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,2-Dichloroethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,2-Dichloropropane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
1,3-Dichlorobenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
1,4-Dichlorobenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
2-Butanone	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
2-Hexanone	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
4-Methyl-2-pentanone	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Acetone	13 UJ	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 UJ	13 UJ	14 UJ	12 UJ
Benzene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Bromodichloromethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Bromoform	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Bromomethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Carbon disulfide	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Carbon tetrachloride	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Chlorobenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Chloroethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Chloroform	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Chloromethane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Cyclohexane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Dibromochloromethane	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Dichlorodifluoromethane (Freon-12)	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Ethylbenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Isopropylbenzene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Methyl acetate	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	69	13 U	13 U	14 U	12 U
Methyl-tert-butyl ether (MTBE)	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Methylcyclohexane	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Methylene chloride	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Styrene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Tetrachloroethene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Toluene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
Trichloroethene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Trichlorofluoromethane(Freon-11)	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Vinyl chloride	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
Xylene, total	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U
cis-1,2-Dichloroethene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
cis-1,3-Dichloropropene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
trans-1,2-Dichloroethene	13 U	11 U	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 U	13 U	13 U	14 U	12 U
trans-1,3-Dichloropropene	13 U	11 UJ	11 U	11 U	14 U	10 U	11 U	20 U	14 U	11 UJ	13 U	13 U	14 U	12 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS11		MR04-IS12		MR04-IS13	MR04-IS14	MR04-IS15	MR04-IS16	MR04-IS17	MR04-IS18	MR04-IS19	MR04-IS20	MR04-IS21
Sample ID	MR04-IS11-2-4-07C	MR04-IS11D-2-4-07C	MR04-IS12-18-20-07C	MR04-IS12D-18-20-07C	MR04-IS13-12-14-07C	MR04-IS14-8-10-07C	MR04-IS15-13-15-07C	MR04-IS16-7-9-07C	MR04-IS17-9-11-07C	MR04-IS18-7-9-07C	MR04-IS19-7-9-07C	MR04-IS20-7-9-07C	MR04-IS21-8-10-07C
Sample Date	09/13/07	09/13/07	09/13/07	09/13/07	09/12/07	09/13/06	09/12/07	09/11/07	09/12/07	09/11/07	09/12/07	09/12/07	09/12/07
Chemical Name													
Semi-volatile Organic Compounds (UG_KG)													
1,1-Biphenyl	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,2'-Oxybis(1-chloropropane)	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,4,5-Trichlorophenol	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
2,4,6-Trichlorophenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,4-Dichlorophenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,4-Dimethylphenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,4-Dinitrophenol	1,000 UJ	1,000 UJ	910 U	1,100 UJ	1,300 UJ	990 UJ	1,000 U	1,000 UJ	1,100 U	1,100 UJ	1,300 U	1,300 U	1,100 U
2,4-Dinitrotoluene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2,6-Dinitrotoluene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2-Chloronaphthalene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2-Chlorophenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2-Methylnaphthalene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2-Methylphenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
2-Nitroaniline	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
2-Nitrophenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
3,3'-Dichlorobenzidine	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
3-Nitroaniline	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
4,6-Dinitro-2-methylphenol	1,000 UJ	1,000 UJ	910 U	1,100 UJ	1,300 UJ	990 UJ	1,000 U	1,000 UJ	1,100 U	1,100 UJ	1,300 U	1,300 U	1,100 U
4-Bromophenyl-phenylether	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
4-Chloro-3-methylphenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
4-Chloroaniline	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
4-Chlorophenyl-phenylether	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
4-Methylphenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
4-Nitroaniline	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
4-Nitrophenol	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
Acenaphthene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Acenaphthylene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Acetophenone	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Anthracene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Atrazine	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzaldehyde	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzo(a)anthracene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzo(a)pyrene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzo(b)fluoranthene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzo(g,h,i)perylene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Benzo(k)fluoranthene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Butylbenzylphthalate	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Caprolactam	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Carbazole	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Chrysene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Di-n-butylphthalate	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Di-n-octylphthalate	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Dibenz(a,h)anthracene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Dibenzofuran	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Diethylphthalate	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Dimethyl phthalate	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Fluoranthene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Fluorene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Hexachlorobenzene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Hexachlorobutadiene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Hexachlorocyclopentadiene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Hexachloroethane	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Indeno(1,2,3-cd)pyrene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Isophorone	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Naphthalene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Nitrobenzene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Pentachlorophenol	1,000 U	1,000 U	910 U	1,100 U	1,300 U	990 U	1,000 U	1,000 U	1,100 U	1,100 U	1,300 U	1,300 U	1,100 U
Phenanthrene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Phenol	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
Pyrene	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
bis(2-Chloroethoxy)methane	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
bis(2-Chloroethyl)ether	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
bis(2-Ethylhexyl)phthalate	33 J	39 J	32 J	41 J	510 U	48 J	420 U	400 U	430 U	430 U	530 U	500 U	450 U
n-Nitroso-di-n-propylamine	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U
n-Nitrosodiphenylamine	400 U	410 U	360 U	420 U	510 U	390 U	420 U	400 U	430 U	430 U	530 U	500 U	450 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS22	MR04-IS23	MR04-IS24	MR04-IS25	MR04-IS26	MR04-IS27	MR04-IS28	MR04-IS29	MR04-IS30	MR04-IS31	MR04-IS32		MR04-IS33	MR04-IS34
Sample ID	MR04-IS22-7-9-07C	MR04-IS23-7-10-07C	MR04-IS24-9-11-07C	MR04-IS25-9-11-07C	MR04-IS26-12-14-07C	MR04-IS27-9-11-07C	MR04-IS28-9-11-07C	MR04-IS29-10-12-07C	MR04-IS30-10-12-07C	MR04-IS31-2-4-07C	MR04-IS32-12-14-07C	MR04-IS32D-12-14-07C	MR04-IS33-12-14-07C	MR04-IS34-13-15-07C
Sample Date	09/12/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/12/07	09/12/07	09/12/07	09/12/07	09/12/07
Chemical Name														
Semi-volatile Organic Compounds (UG_KG)														
1,1-Biphenyl	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,2'-Oxybis(1-chloropropane)	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,4,5-Trichlorophenol	1,100 U	990 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
2,4,6-Trichlorophenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,4-Dichlorophenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,4-Dimethylphenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,4-Dinitrophenol	1,100 UJ	990 UJ	2,200 UJ	2,100 UJ	2,600 UJ	2,000 UJ	2,200 UJ	3,600 UJ	2,800 UJ	970 UJ	1,200 UJ	1,100 UJ	1,200 U	1,100 U
2,4-Dinitrotoluene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2,6-Dinitrotoluene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2-Chloronaphthalene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2-Chlorophenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2-Methylnaphthalene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2-Methylphenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
2-Nitroaniline	1,100 U	990 U	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
2-Nitrophenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
3,3'-Dichlorobenzidine	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
3-Nitroaniline	1,100 U	990 U	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
4,6-Dinitro-2-methylphenol	1,100 UJ	990 UJ	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 UJ	1,200 UJ	1,100 UJ	1,200 U	1,100 U
4-Bromophenyl-phenylether	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
4-Chloro-3-methylphenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
4-Chloroaniline	430 U	390 U	870 U	800 U	990 U	790 U	840 U	1,400 U	1,100 U	390 U	460 U	440 U	460 U	420 U
4-Chlorophenyl-phenylether	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
4-Methylphenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
4-Nitroaniline	1,100 U	990 U	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
4-Nitrophenol	1,100 U	990 U	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
Acenaphthene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Acenaphthylene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Acetophenone	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Anthracene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Atrazine	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzaldehyde	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzo(a)anthracene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzo(a)pyrene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzo(b)fluoranthene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzo(g,h,i)perylene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Benzo(k)fluoranthene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Butylbenzylphthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Caprolactam	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Carbazole	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Chrysene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Di-n-butylphthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Di-n-octylphthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Dibenz(a,h)anthracene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Dibenzofuran	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Diethylphthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Dimethyl phthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Fluoranthene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Fluorene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Hexachlorobenzene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Hexachlorobutadiene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Hexachlorocyclopentadiene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Hexachloroethane	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Indeno(1,2,3-cd)pyrene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Isophorone	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Naphthalene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Nitrobenzene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Pentachlorophenol	1,100 U	990 U	2,200 U	2,100 U	2,600 U	2,000 U	2,200 U	3,600 U	2,800 U	970 U	1,200 U	1,100 U	1,200 U	1,100 U
Phenanthrene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Phenol	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
Pyrene	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
bis(2-Chloroethoxy)methane	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
bis(2-Chloroethyl)ether	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
bis(2-Ethylhexyl)phthalate	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	38 J	460 U	420 U
n-Nitroso-di-n-propylamine	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U
n-Nitrosodiphenylamine	430 U	390 U	430 U	400 U	500 U	390 U	420 U	700 U	550 U	390 U	460 U	440 U	460 U	420 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS11		MR04-IS12		MR04-IS13	MR04-IS14	MR04-IS15	MR04-IS16	MR04-IS17	MR04-IS18	MR04-IS19	MR04-IS20	MR04-IS21
Sample ID	MR04-IS11-2-4-07C	MR04-IS11D-2-4-07C	MR04-IS12-18-20-07C	MR04-IS12D-18-20-07C	MR04-IS13-12-14-07C	MR04-IS14-8-10-07C	MR04-IS15-13-15-07C	MR04-IS16-7-9-07C	MR04-IS17-9-11-07C	MR04-IS18-7-9-07C	MR04-IS19-7-9-07C	MR04-IS20-7-9-07C	MR04-IS21-8-10-07C
Sample Date	09/13/07	09/13/07	09/13/07	09/13/07	09/12/07	09/13/06	09/12/07	09/11/07	09/12/07	09/11/07	09/12/07	09/12/07	09/12/07
Chemical Name													
Pesticide/Polychlorinated Biphenyls (UG_KG)													
4,4'-DDD	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
4,4'-DDE	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
4,4'-DDT	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Aldrin	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
Aroclor-1016	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Aroclor-1221	82 U	84 U	74 U	85 U	100 U	80 U	85 U	82 U	87 U	87 U	110 U	100 U	92 U
Aroclor-1232	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Aroclor-1242	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Aroclor-1248	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Aroclor-1254	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Aroclor-1260	40 U	41 U	36 U	42 U	51 U	39 U	42 U	40 U	43 U	43 U	53 U	50 U	45 U
Dieldrin	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Endosulfan I	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
Endosulfan II	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Endosulfan sulfate	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Endrin	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Endrin aldehyde	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Endrin ketone	4 U	4.1 U	3.6 U	4.2 U	5.1 U	3.9 U	4.2 U	4 U	4.3 U	4.3 U	5.3 U	5 U	4.5 U
Heptachlor	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
Heptachlor epoxide	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
Methoxychlor	21 U	21 U	19 U	22 U	26 U	20 U	22 U	21 U	22 U	22 U	27 U	26 U	23 U
Toxaphene	210 U	210 U	190 U	220 U	260 U	200 U	220 U	210 U	220 U	220 U	270 U	260 U	230 U
alpha-BHC	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
alpha-Chlordane	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
beta-BHC	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
delta-BHC	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
gamma-BHC (Lindane)	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
gamma-Chlordane	2.1 U	2.1 U	1.9 U	2.2 U	2.6 U	2 U	2.2 U	2.1 U	2.2 U	2.2 U	2.7 U	2.6 U	2.3 U
Explosives (UG_KG)													
1,3,5-Trinitrobenzene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
1,3-Dinitrobenzene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
2,4,6-Trinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
2,4-Dinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
2,6-Dinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
2-Amino-4,6-dinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
2-Nitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
3-Nitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
4-Amino-2,6-dinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 UJ	120 U	120 U	120 U	120 U	120 U	120 U	120 UJ
4-Nitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
HMX	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
Nitrobenzene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
RDX	120 U	120 U	120 U	120 U	120 U	120 UJ	120 U	120 U	120 U	120 U	120 U	120 U	120 U
Tetryl	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS22	MR04-IS23	MR04-IS24	MR04-IS25	MR04-IS26	MR04-IS27	MR04-IS28	MR04-IS29	MR04-IS30	MR04-IS31	MR04-IS32		MR04-IS33	MR04-IS34
Sample ID	MR04-IS22-7-9-07C	MR04-IS23-7-10-07C	MR04-IS24-9-11-07C	MR04-IS25-9-11-07C	MR04-IS26-12-14-07C	MR04-IS27-9-11-07C	MR04-IS28-9-11-07C	MR04-IS29-10-12-07C	MR04-IS30-10-12-07C	MR04-IS31-2-4-07C	MR04-IS32-12-14-07C	MR04-IS32D-12-14-07C	MR04-IS33-12-14-07C	MR04-IS34-13-15-07C
Sample Date	09/12/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/12/07	09/12/07	09/12/07	09/12/07	09/12/07
Chemical Name														
Pesticide/Polychlorinated Biphenyls (UG_KG)														
4,4'-DDD	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
4,4'-DDE	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	5.8	4.6 U	4.4 U	4.6 U	4.2 U
4,4'-DDT	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Aldrin	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Aroclor-1016	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Aroclor-1221	88 U	80 U	89 U	81 U	100 UJ	80 UJ	86 U	140 U	110 U	79 U	93 U	89 U	94 U	86 U
Aroclor-1232	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Aroclor-1242	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Aroclor-1248	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Aroclor-1254	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Aroclor-1260	43 U	39 U	44 U	40 U	50 UJ	39 UJ	42 U	69 U	55 U	39 U	46 U	44 U	46 U	42 U
Dieldrin	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	0.46 J	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endosulfan I	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Endosulfan II	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endosulfan sulfate	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin aldehyde	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Endrin ketone	4.3 U	3.9 U	4.4 U	4 U	5 UJ	3.9 UJ	4.2 U	6.9 U	5.5 U	3.9 U	4.6 U	4.4 U	4.6 U	4.2 U
Heptachlor	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Heptachlor epoxide	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Methoxychlor	22 U	20 U	23 U	21 U	26 UJ	20 UJ	22 U	36 U	29 U	20 U	24 U	23 U	24 U	22 U
Toxaphene	220 U	200 U	230 U	210 U	260 UJ	200 UJ	220 U	360 U	290 U	200 U	240 U	230 U	240 U	220 U
alpha-BHC	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
alpha-Chlordane	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
beta-BHC	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
delta-BHC	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
gamma-BHC (Lindane)	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
gamma-Chlordane	2.2 U	2 U	2.3 U	2.1 U	2.6 UJ	2 UJ	2.2 U	3.6 U	2.9 U	2 U	2.4 U	2.3 U	2.4 U	2.2 U
Explosives (UG_KG)														
1,3,5-Trinitrobenzene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
1,3-Dinitrobenzene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
2,4,6-Trinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 UJ	120 U
2,4-Dinitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
2,6-Dinitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
2-Amino-4,6-dinitrotoluene	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 UJ	120 U
2-Nitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
3-Nitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
4-Amino-2,6-dinitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
4-Nitrotoluene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
HMX	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
Nitrobenzene	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
RDX	120 U	120 U	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 UJ	120 U	120 U	120 U	120 UJ	120 U
Tetryl	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 UJ	120 U

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS11		MR04-IS12		MR04-IS13	MR04-IS14	MR04-IS15	MR04-IS16	MR04-IS17	MR04-IS18	MR04-IS19	MR04-IS20	MR04-IS21
Sample ID	MR04-IS11-2-4-07C	MR04-IS11D-2-4-07C	MR04-IS12-18-20-07C	MR04-IS12D-18-20-07C	MR04-IS13-12-14-07C	MR04-IS14-8-10-07C	MR04-IS15-13-15-07C	MR04-IS16-7-9-07C	MR04-IS17-9-11-07C	MR04-IS18-7-9-07C	MR04-IS19-7-9-07C	MR04-IS20-7-9-07C	MR04-IS21-8-10-07C
Sample Date	09/13/07	09/13/07	09/13/07	09/13/07	09/12/07	09/13/06	09/12/07	09/11/07	09/12/07	09/11/07	09/12/07	09/12/07	09/12/07
Chemical Name													
Total Metals (MG_KG)													
Aluminum	14,500 J	15,600 J	1,490 J	2,750 J	13,000 J	13,700 J	11,700 J	7,100	3,260	8,900	15,700	16,000	2,770
Antimony	0.55 J	0.96 J	4.9 UJ	5.6 UJ	6.9 UJ	5.3 UJ	5.6 UJ	5.6 UJ	5.9 UJ	6.3 UJ	7.3 UJ	7 UJ	0.55 J
Arsenic	2.7 J	4.4 J	0.29 J	0.5 J	2.5 J	9.6 J	0.95 J	1.5 J	0.85 J	2.6 J	3.4	1.5	1.1
Barium	18.5 J	18.6 J	5.3 J	8.9 J	17.7 J	14.5 J	14.7 J	10.4 J	5.6 J	10.8 J	25.5	18.4 J	6.2 J
Beryllium	0.056 J	0.27 J	0.41 U	0.47 U	0.12 J	0.12 J	0.07 J	0.037 J	0.49 U	0.082 J	0.3 J	0.14 J	0.036 J
Cadmium	0.45 U	0.059 J	0.41 U	0.47 U	0.57 U	0.44 U	0.47 U	0.46 U	0.035 J	0.52 U	0.062 J	0.079 J	0.039 J
Calcium	1,380	1,390	406 U	470 U	306 J	441 U	469 U	80.5 J	485 J	225 J	155 J	128 J	497 U
Chromium	14.9 J	17.3 J	2.6 J	3.7 J	17.7 J	18 J	9.3 J	10.4	6.2 J	14	23.6 J	18.8 J	5.1 J
Cobalt	0.63 J	0.68 J	0.054 J	0.1 J	0.52 J	0.61 J	0.56 J	0.27 J	0.068 J	0.34 J	0.68 J	0.5 J	0.096 J
Copper	1 J	1 J	0.51 J	0.37 J	2.1 J	2.2	0.93 J	1.2 J	0.46 J	2 J	3.5	1.5 J	0.61 J
Cyanide	2.9 U	3.1 U	2.7 U	2.9 U	3.1 U	2.8 U	2.6 U	3 U	3 U	3.2 U	3.7 U	3.7 U	3.2 U
Iron	10,800 J	18,800 J	494 J	697 J	9,240 J	5,120 J	3,820 J	5,010	2,630	2,880	6,320	3,990	1,530
Lead	7.1 J	7.9 J	2.8 J	3.9 J	9.8 J	9.9 J	11.3 J	6.5 J	4.1	9.6 J	11.8	11	3.6
Magnesium	568	640	74.3 J	136 J	644	535	395 J	247 J	113 J	351 J	797	565 J	95.9 J
Manganese	10.3 J	9.9 J	9.2 J	8.8 J	12.1 J	6.8 J	10.1 J	3.1 U	5.6 J	2.6 U	7.4 J	6.2 J	2.7 U
Mercury	0.1 U	0.11 U	0.095 U	0.11 U	0.11 U	0.11 U	0.1 U	0.068 U	0.13 U	0.13 U	0.15 U	0.11 U	0.12 U
Nickel	1.9 J	2.1 J	3.2 U	0.37 J	1.6 J	1.6 J	1.2 J	0.85 J	0.45 J	0.73 J	2 J	1.4 J	4 U
Potassium	431 J	499	102 J	154 J	666	596	328 J	295 J	173 J	484 J	1,130	729	147 J
Selenium	0.32 J	0.26 J	2.8 UJ	3.3 UJ	4 UJ	0.26 J	3.3 UJ	0.31 J	3.4 U	0.27 J	4.3 U	4.1 U	3.5 U
Silver	0.91 U	0.95 U	0.81 U	0.94 U	1.1 U	0.88 U	0.94 U	0.93 U	0.98 U	1 U	1.2 U	1.2 U	0.99 U
Sodium	41.2 J	47.1 J	406 U	470 U	42.7 J	57.6 J	54.3 J	51.9 J	14.1 J	18.1 J	49.5 J	35.3 J	13.9 J
Thallium	2.3 U	2.4 U	2 U	2.4 U	2.9 U	2.2 U	2.3 U	2.3 U	2.4 U	2.6 U	3 U	2.9 U	2.5 U
Vanadium	23.7	27.3	3.3 J	4.3 J	21.6	22.6	10.6	11.6	7.3	17.8	33.3	23	4.7 J
Zinc	5 J	5.5 J	1 J	1.5 J	5.7 J	6.3	4.4 J	2.3 J	1.2 J	3.7 J	9	5.6 J	0.99 J
Wet Chemistry (MG_KG)													
Perchlorate	0.0024 U	0.0025 U	0.0022 U	0.0025 U	0.0031 U	0.0024 U	0.0025 U	0.0024 U	0.0026 U	0.0026 U	0.0032 U	0.003 U	0.0027 U

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quanitation limit is imprecise
Shading represents detection
"D" identifier in sample ID indicates duplicate sample

Phase II Subsurface Soil Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-IS22	MR04-IS23	MR04-IS24	MR04-IS25	MR04-IS26	MR04-IS27	MR04-IS28	MR04-IS29	MR04-IS30	MR04-IS31	MR04-IS32		MR04-IS33	MR04-IS34
Sample ID	MR04-IS22-7-9-07C	MR04-IS23-7-10-07C	MR04-IS24-9-11-07C	MR04-IS25-9-11-07C	MR04-IS26-12-14-07C	MR04-IS27-9-11-07C	MR04-IS28-9-11-07C	MR04-IS29-10-12-07C	MR04-IS30-10-12-07C	MR04-IS31-2-4-07C	MR04-IS32-12-14-07C	MR04-IS32D-12-14-07C	MR04-IS33-12-14-07C	MR04-IS34-13-15-07C
Sample Date	09/12/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/11/07	09/10/07	09/10/07	09/12/07	09/12/07	09/12/07	09/12/07	09/12/07
Chemical Name														
Total Metals (MG_KG)														
Aluminum	12,800	9,990	11,600	11,300	10,700	5,250	10,600	15,600	6,370	4,740	14,500	12,100	14,500	10,200
Antimony	6.5 UJ	5.9 UJ	5.8 UJ	5.5 UJ	6.7 UJ	5.4 UJ	5.8 UJ	9.6 UJ	7.6 UJ	6 UJ	7 UJ	6.9 UJ	0.64 J	0.48 J
Arsenic	1.5 J	1.4 J	3.2	3	4	0.89 U	4	8.7	3.2	2 J	4.6 J	3.7 J	0.91 J	3.5
Barium	15.6 J	16.6 J	15 J	17.3 J	25 J	9.6 J	21 J	19.9 J	12.3 J	10.2 J	16.5 J	13.8 J	18.3 J	19
Beryllium	0.099 J	0.058 J	0.1 J	0.098 J	0.32 J	0.45 U	0.029 J	0.15 J	0.06 J	0.073 J	0.12 J	0.099 J	0.13 J	0.23 J
Cadmium	0.04 J	0.49 U	0.052 J	0.45 U	0.064 J	0.45 U	0.48 U	0.8 U	0.63 U	0.077 J	0.58 U	0.58 U	0.53 U	0.46 U
Calcium	541 U	161 J	56.5 J	181 J	139 J	446 U	911 J	796 U	278 J	1,170	838	707	527 U	66 J
Chromium	15.4	9.3	17.4	13.3	18.9	7.1	14.6	30.4	12.7	7.3	20.8	15.9	9.5 J	13.6 J
Cobalt	0.5 J	0.36 J	0.53 J	0.35 J	0.58 J	0.16 J	0.42 J	0.54 J	0.28 J	0.23 J	0.52 J	0.46 J	0.58 J	0.44 J
Copper	2.8	1.6 J	2.2 J	0.81 J	3.2	0.31 J	0.73 J	4.2	1.5 J	2 J	3	2.3 J	1.4 J	1.9 J
Cyanide	3 U	2.6 U	3.3 U	2.8 U	3.6 U	2.8 U	3 U	4.2 U	4 U	2.9 U	3.3 U	0.12 U	3.4 U	2.9 U
Iron	3,760	3,220	13,500	3,620	19,900	930	9,750	16,600	6,360	5,150	9,250	7,490	24,000	15,400
Lead	12.8 J	7.4 J	10.7	11.4	9.2	6.6	5.9	13.9	5.7	20.1 J	14 J	11.8 J	15.2	12.2
Magnesium	514 J	260 J	544	403 J	599	163 J	369 J	758 J	371 J	206 J	473 J	386 J	352 J	476
Manganese	3.7 U	3.4 U	7.7 J	5.7 J	7.6 J	7 J	7 J	9.2 J	7.9 J	7.8 J	4.2 U	4 U	6.1 J	5 U
Mercury	0.091 U	0.072 U	0.12 U	0.11 U	0.13 U	0.1 U	0.12 U	0.16 U	0.13 U	0.12 U	0.12 U	0.073 J	0.13 U	0.12 U
Nickel	1.1 J	1 J	1.5 J	0.9 J	1.7 J	0.44 J	1.5 J	1.9 J	0.95 J	0.89 J	1.4 J	1.2 J	2 J	1.2 J
Potassium	480 J	217 J	618	358 J	672	221 J	326 J	932	423 J	199 J	595	565 J	247 J	485
Selenium	3.8 UJ	3.4 UJ	3.4 U	3.2 U	3.9 U	3.1 U	3.4 U	5.6 U	4.4 U	0.34 J	0.34 J	0.32 J	3.7 U	3.2 U
Silver	1.1 U	0.98 U	0.97 U	0.91 U	1.1 U	0.89 U	0.96 U	1.6 U	1.3 U	0.99 U	1.2 U	1.2 U	1.1 U	0.93 U
Sodium	24.3 J	22.1 J	28.1 J	20.6 J	32.6 J	10.8 J	20 J	36.5 J	19.1 J	13.7 J	27.9 J	25.7 J	34.2 J	43.2 J
Thallium	2.7 U	2.4 U	2.4 U	2.3 U	2.8 U	2.2 U	2.4 U	4 U	3.2 U	2.5 U	2.9 U	2.9 U	2.6 U	2.3 U
Vanadium	11.7	14.4	24.4	18.3	27.7	6.7	18.1	31.7	13.2	10.9	34.6	21.4	13.2	18.9
Zinc	3.7 J	2.2 J	4.6 J	3 J	6.5 J	1.5 J	4.3 J	7 J	4.1 J	10.9	4.9 J	5.2 J	4.3 J	4.1 J
Wet Chemistry (MG_KG)														
Perchlorate	0.0026 U	0.0024 U	0.0027 U	0.0024 U	0.003 U	0.0024 U	0.0026 U	0.0043 U	0.0034 U	0.0024 U	0.0028 U	0.0027 U	0.0028 U	9.50E-04 J

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quanitation limit is imprecise
Shading represents detection
"D" identifier in sample ID indicates duplicate sample

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW01			MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05		MR04-MW06		MR04-MW07	
Sample ID	MR04-MW01-06A	MR04-GW01-07C	MR04-GW01D-07C	MR04-MW02-06A	MR04-GW02-07C	MR04-MW03-06A	MR04-GW03-07C	MR04-MW04-06A	MR04-GW04-07C	MR04-MW05-06A	MR04-GW05-07C	MR04-MW06-06A	MR04-GW06-07C	MR04-MW07-06A	MR04-GW07-07C
Sample Date	03/28/06	09/09/07	09/09/07	04/01/06	09/12/07	03/28/06	09/09/07	03/30/06	09/09/07	03/29/06	09/09/07	03/31/06	09/12/07	03/28/06	09/06/07
Chemical Name															
Volatile Organic Compounds (UG_L)															
1,1,1-Trichloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2,2-Tetrachloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2-Trichloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1-Dichloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1-Dichloroethene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2,3-Trichlorobenzene	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trichlorobenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dibromo-3-chloropropane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dibromoethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichlorobenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichloropropane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,3-Dichlorobenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,4-Dichlorobenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
2-Butanone	10 UJ	5 R	5 R	10 U	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 U	5 R	10 UJ	5 R
2-Hexanone	10 UJ	5 U	5 U	10 U	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 U	5 U	10 UJ	5 U
4-Methyl-2-pentanone	10 U	5 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U
Acetone	10 UJ	5 R	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5.8 J	10 UJ	5 R
Benzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromochloromethane	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromodichloromethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromoform	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromomethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Carbon disulfide	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Carbon tetrachloride	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chlorobenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloroethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloroform	10 U	0.5 U	0.5 U	5.1 J	1.2	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloromethane	10 U	0.2 J	0.5 U	10 U	0.5 U	10 U	0.28 J	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Cyclohexane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Dibromochloromethane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Dichlorodifluoromethane (Freon-12)	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Ethylbenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Isopropylbenzene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methyl acetate	10 UJ	0.5 R	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R
Methyl-tert-butyl ether (MTBE)	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methylcyclohexane	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methylene chloride	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Styrene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Tetrachloroethene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Toluene	10 U	0.5 U	0.5 U	1.6 J	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	3.5 J	0.5 U	10 U	0.5 U
Trichloroethene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Trichlorofluoromethane(Freon-11)	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Vinyl chloride	10 U	0.5 U	0.5 U	10 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Xylene, total	10 U	NA	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA
cis-1,2-Dichloroethene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
cis-1,3-Dichloropropene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
m- and p-Xylene	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
o-Xylene	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
trans-1,2-Dichloroethene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
trans-1,3-Dichloropropene	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW08			MR04-MW09		MR04-MW10		MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample ID	MR04-MW08-06A	MR04-MW08-06A-D	MR04-GW08-07C	MR04-MW09-06A	MR04-GW09-07C	MR04-MW10-06A	MR04-GW10-07C	MR04-MW11-06A	MR04-GW11-07C	MR04-MW12-06A	MR04-GW12-07C	MR04-MW13-06A	MR04-GW13-07C	MR04-MW14-06A	MR04-GW14-07C	MR04-MW15-06A	MR04-GW15-07C
Sample Date	03/30/06	03/30/06	09/08/07	03/30/06	09/08/07	03/29/06	09/06/07	03/29/06	09/09/07	03/31/06	09/12/07	03/31/06	09/08/07	03/29/06	09/08/07	03/31/06	09/08/07
Chemical Name																	
Volatile Organic Compounds (UG_L)																	
1,1,1-Trichloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2,2-Tetrachloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1,2-Trichloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1-Dichloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,1-Dichloroethene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2,3-Trichlorobenzene	NA	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trichlorobenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dibromo-3-chloropropane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dibromoethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichlorobenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,2-Dichloropropane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,3-Dichlorobenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
1,4-Dichlorobenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
2-Butanone	10 UJ	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R
2-Hexanone	10 UJ	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U	10 UJ	5 U
4-Methyl-2-pentanone	10 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U
Acetone	10 UJ	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R
Benzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromochloromethane	NA	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromodichloromethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromoform	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Bromomethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Carbon disulfide	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Carbon tetrachloride	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chlorobenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloroethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloroform	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Chloromethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.22 J	10 U	0.5 U	10 U	0.24 J	10 U	0.5 U	10 U	0.5 U
Cyclohexane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Dibromochloromethane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Dichlorodifluoromethane (Freon-12)	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Ethylbenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Isopropylbenzene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methyl acetate	10 UJ	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R
Methyl-tert-butyl ether (MTBE)	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methylcyclohexane	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Methylene chloride	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Styrene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Tetrachloroethene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Toluene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	5 J	0.5 U	10 U	0.5 U	10 U	0.5 U	1.2 J	0.5 U
Trichloroethene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Trichlorofluoromethane(Freon-11)	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Vinyl chloride	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
Xylene, total	10 U	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA
cis-1,2-Dichloroethene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
cis-1,3-Dichloropropene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
m- and p-Xylene	NA	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
o-Xylene	NA	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
trans-1,2-Dichloroethene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U
trans-1,3-Dichloropropene	10 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW01			MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05		MR04-MW06		MR04-MW07	
Sample ID	MR04-MW01-06A	MR04-GW01-07C	MR04-GW01D-07C	MR04-MW02-06A	MR04-GW02-07C	MR04-MW03-06A	MR04-GW03-07C	MR04-MW04-06A	MR04-GW04-07C	MR04-MW05-06A	MR04-GW05-07C	MR04-MW06-06A	MR04-GW06-07C	MR04-MW07-06A	MR04-GW07-07C
Sample Date	03/28/06	09/09/07	09/09/07	04/01/06	09/12/07	03/28/06	09/09/07	03/30/06	09/09/07	03/29/06	09/09/07	03/31/06	09/12/07	03/28/06	09/06/07
Chemical Name															
Semi-volatile Organic Compounds (UG_L)															
1,1-Biphenyl	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
1,2,4,5-Tetrachlorobenzene	NA	5.4 U	5.8 U	NA	5 U	NA	5.5 U	NA	4.8 U	NA	5.6 U	NA	5.1 U	NA	5.4 U
2,2'-Oxybis(1-chloropropane)	12 U	5.4 U	5.8 U	13 UJ	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 UJ	5.1 U	11 U	5.4 U
2,3,4,6-Tetrachlorophenol	NA	5.4 U	5.8 U	NA	5 U	NA	5.5 U	NA	4.8 U	NA	5.6 U	NA	5.1 U	NA	5.4 U
2,4,5-Trichlorophenol	29 U	5.4 U	5.8 U	33 U	5 U	29 U	5.5 U	30 U	4.8 U	29 U	5.6 U	32 U	5.1 U	28 U	5.4 U
2,4,6-Trichlorophenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2,4-Dichlorophenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2,4-Dimethylphenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2,4-Dinitrophenol	29 U	11 U	12 U	33 U	9.9 UJ	29 U	11 U	30 UJ	9.7 U	29 U	11 U	32 U	10 UJ	28 U	11 U
2,4-Dinitrotoluene	NA	5.4 U	5.8 U	NA	5 U	NA	5.5 U	NA	4.8 U	NA	5.6 U	NA	5.1 U	NA	5.4 U
2,6-Dinitrotoluene	NA	5.4 U	5.8 U	NA	5 U	NA	5.5 U	NA	4.8 U	NA	5.6 U	NA	5.1 U	NA	5.4 U
2-Chloronaphthalene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2-Chlorophenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2-Methylnaphthalene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2-Methylphenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
2-Nitroaniline	29 U	11 U	12 U	33 UJ	9.9 U	29 U	11 U	30 UJ	9.7 U	29 U	11 U	32 UJ	10 U	28 U	11 U
2-Nitrophenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
3,3'-Dichlorobenzidine	12 U	5.4 U	5.8 U	13 UJ	5 U	12 U	5.5 U	12 UJ	4.8 U	12 U	5.6 U	13 UJ	5.1 U	11 U	5.4 U
3-Nitroaniline	29 U	11 U	12 U	33 U	9.9 U	29 U	11 U	30 U	9.7 U	29 U	11 U	32 U	10 U	28 U	11 U
4,6-Dinitro-2-methylphenol	29 U	11 U	12 U	33 U	9.9 U	29 U	11 U	30 U	9.7 U	29 U	11 U	32 U	10 U	28 U	11 U
4-Bromophenyl-phenylether	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
4-Chloro-3-methylphenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
4-Chloroaniline	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
4-Chlorophenyl-phenylether	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
4-Methylphenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
4-Nitroaniline	29 UJ	11 U	12 U	33 U	9.9 U	29 UJ	11 U	30 U	9.7 U	29 UJ	11 U	32 U	10 U	28 UJ	11 U
4-Nitrophenol	29 U	11 U	12 U	33 U	9.9 U	29 U	11 U	30 U	9.7 U	29 U	11 U	32 U	10 U	28 U	11 U
Acenaphthene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Acenaphthylene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Acetophenone	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	1.1 J	5.4 U
Anthracene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Atrazine	12 UJ	5.4 U	5.8 U	13 UJ	5 U	12 UJ	5.5 U	12 UJ	4.8 U	12 UJ	5.6 U	13 UJ	5.1 U	11 UJ	5.4 U
Benzaldehyde	12 U	5.4 U	5.8 U	13 UJ	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 UJ	5.1 U	11 U	5.4 U
Benzo(a)anthracene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Benzo(a)pyrene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Benzo(b)fluoranthene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Benzo(g,h,i)perylene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Benzo(k)fluoranthene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Butylbenzylphthalate	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Caprolactam	12 U	5.4 U	5.8 U	13 UJ	5 U	12 U	5.5 U	12 UJ	4.8 U	12 U	5.6 U	13 UJ	5.1 U	11 U	5.4 U
Carbazole	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Chrysene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Di-n-butylphthalate	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Di-n-octylphthalate	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Dibenz(a,h)anthracene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Dibenzofuran	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Diethylphthalate	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Dimethyl phthalate	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Fluoranthene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Fluorene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Hexachlorobenzene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Hexachlorobutadiene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Hexachlorocyclopentadiene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Hexachloroethane	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Indeno(1,2,3-cd)pyrene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Isophorone	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Naphthalene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Nitrobenzene	NA	5.4 U	5.8 U	NA	5 U	NA	5.5 U	NA	4.8 U	NA	5.6 U	NA	5.1 U	NA	5.4 U
Pentachlorophenol	29 U	11 U	12 U	33 U	9.9 U	29 U	11 U	30 U	9.7 U	29 U	11 U	32 U	10 U	28 U	11 U
Phenanthrene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
Phenol	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	0.62 J	11 U	5.4 U
Pyrene	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
bis(2-Chloroethoxy)methane	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
bis(2-Chloroethyl)ether	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U
bis(2-Ethylhexyl)phthalate	12 U	5.4 U	5.8 U	13 U	5 U	1.4 J	1.1 J	1.3 J	4.8 U	85 U	5.6 U	13 U	1.1 J	3.5 J	5.4 U
n-Nitroso-di-n-propylamine	12 U	5.4 U	5.8 U	13 UJ	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 UJ	5.1 U	11 U	5.4 U
n-Nitrosodiphenylamine	12 U	5.4 U	5.8 U	13 U	5 U	12 U	5.5 U	12 U	4.8 U	12 U	5.6 U	13 U	5.1 U	11 U	5.4 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW08			MR04-MW09		MR04-MW10		MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample ID	MR04-MW08-06A	MR04-MW08-06A-D	MR04-GW08-07C	MR04-MW09-06A	MR04-GW09-07C	MR04-MW10-06A	MR04-GW10-07C	MR04-MW11-06A	MR04-GW11-07C	MR04-MW12-06A	MR04-GW12-07C	MR04-MW13-06A	MR04-GW13-07C	MR04-MW14-06A	MR04-GW14-07C	MR04-MW15-06A	MR04-GW15-07C
Sample Date	03/30/06	03/30/06	09/08/07	03/30/06	09/08/07	03/29/06	09/06/07	03/29/06	09/09/07	03/31/06	09/12/07	03/31/06	09/08/07	03/29/06	09/08/07	03/31/06	09/08/07
Chemical Name																	
Semi-volatile Organic Compounds (UG_L)																	
1,1-Biphenyl	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
1,2,4,5-Tetrachlorobenzene	NA	NA	5.7 U	NA	6.2 U	NA	5.5 U	NA	4.8 U	NA	5.1 U	NA	5.8 U	NA	6.9 U	NA	5.2 U
2,2'-Oxybis(1-chloropropane)	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 U	6.9 U	11 UJ	5.2 U
2,3,4,6-Tetrachlorophenol	NA	NA	5.7 U	NA	6.2 U	NA	5.5 U	NA	4.8 U	NA	5.1 U	NA	5.8 U	NA	6.9 U	NA	5.2 U
2,4,5-Trichlorophenol	29 U	29 U	5.7 U	31 U	6.2 U	30 U	5.5 U	31 U	4.8 U	31 U	5.1 U	28 U	5.8 U	30 U	6.9 U	28 U	5.2 U
2,4,6-Trichlorophenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2,4-Dichlorophenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2,4-Dimethylphenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2,4-Dinitrophenol	29 UJ	29 UJ	11 U	31 UJ	12 U	30 U	11 U	31 U	9.5 U	31 U	10 UJ	28 U	12 U	30 U	14 U	28 U	10 U
2,4-Dinitrotoluene	NA	NA	5.7 U	NA	6.2 U	NA	5.5 U	NA	4.8 U	NA	5.1 U	NA	5.8 U	NA	6.9 U	NA	5.2 U
2,6-Dinitrotoluene	NA	NA	5.7 U	NA	6.2 U	NA	5.5 U	NA	4.8 U	NA	5.1 U	NA	5.8 U	NA	6.9 U	NA	5.2 U
2-Chloronaphthalene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2-Chlorophenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2-Methylnaphthalene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2-Methylphenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
2-Nitroaniline	29 UJ	29 UJ	11 U	31 UJ	12 U	30 U	11 U	31 U	9.5 U	31 UJ	10 U	28 UJ	12 U	30 U	14 U	28 UJ	10 U
2-Nitrophenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
3,3'-Dichlorobenzidine	12 UJ	12 UJ	5.7 U	13 UJ	6.2 U	12 U	5.5 U	13 U	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 U	6.9 U	11 UJ	5.2 U
3-Nitroaniline	29 U	29 U	11 U	31 U	12 U	30 U	11 U	31 U	9.5 U	31 U	10 U	28 U	12 U	30 U	14 U	28 U	10 U
4,6-Dinitro-2-methylphenol	29 U	29 U	11 U	31 U	12 U	30 U	11 U	31 U	9.5 U	31 U	10 U	28 U	12 U	30 U	14 U	28 U	10 U
4-Bromophenyl-phenylether	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
4-Chloro-3-methylphenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
4-Chloroaniline	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
4-Chlorophenyl-phenylether	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
4-Methylphenol	12 U	12 U	5.7 U	13 U	6.2 U	1.2 J	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
4-Nitroaniline	29 U	29 U	11 U	31 U	12 U	30 UJ	11 U	31 UJ	9.5 U	31 U	10 U	28 U	12 U	30 UJ	14 U	28 U	10 U
4-Nitrophenol	29 U	29 U	11 U	31 U	12 U	30 U	11 U	31 U	9.5 U	31 U	10 U	28 U	12 U	30 U	14 U	28 U	10 U
Acenaphthene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Acenaphthylene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Acetophenone	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Anthracene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Atrazine	12 UJ	12 UJ	5.7 U	13 UJ	6.2 U	12 UJ	5.5 U	13 UJ	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 UJ	6.9 U	11 UJ	5.2 U
Benzaldehyde	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 U	6.9 U	11 UJ	5.2 U
Benzo(a)anthracene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Benzo(a)pyrene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Benzo(b)fluoranthene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Benzo(g,h,i)perylene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Benzo(k)fluoranthene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Butylbenzylphthalate	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Caprolactam	12 UJ	12 UJ	5.7 U	13 UJ	6.2 U	12 U	5.5 U	13 U	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 U	6.9 U	11 UJ	19 U
Carbazole	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Chrysene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Di-n-butylphthalate	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	1.1 J	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	0.67 J
Di-n-octylphthalate	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Dibenz(a,h)anthracene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Dibenzofuran	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Diethylphthalate	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	2.1 J
Dimethyl phthalate	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Fluoranthene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Fluorene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Hexachlorobenzene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Hexachlorobutadiene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Hexachlorocyclopentadiene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Hexachloroethane	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Indeno(1,2,3-cd)pyrene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Isophorone	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Naphthalene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Nitrobenzene	NA	NA	5.7 U	NA	6.2 U	NA	5.5 U	NA	4.8 U	NA	5.1 U	NA	5.8 U	NA	6.9 U	NA	5.2 U
Pentachlorophenol	29 U	29 U	11 U	31 U	12 U	30 U	11 U	31 U	9.5 U	31 U	10 U	28 U	12 U	30 U	14 U	28 U	10 U
Phenanthrene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Phenol	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
Pyrene	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
bis(2-Chloroethoxy)methane	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
bis(2-Chloroethyl)ether	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
bis(2-Ethylhexyl)phthalate	8.1 J	2.2 J	1 J	1.8 J	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U
n-Nitroso-di-n-propylamine	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 UJ	5.1 U	11 UJ	5.8 U	12 U	6.9 U	11 UJ	5.2 U
n-Nitrosodiphenylamine	12 U	12 U	5.7 U	13 U	6.2 U	12 U	5.5 U	13 U	4.8 U	13 U	5.1 U	11 U	5.8 U	12 U	6.9 U	11 U	5.2 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW01			MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05		MR04-MW06		MR04-MW07	
Sample ID	MR04-MW01-06A	MR04-GW01-07C	MR04-GW01D-07C	MR04-MW02-06A	MR04-GW02-07C	MR04-MW03-06A	MR04-GW03-07C	MR04-MW04-06A	MR04-GW04-07C	MR04-MW05-06A	MR04-GW05-07C	MR04-MW06-06A	MR04-GW06-07C	MR04-MW07-06A	MR04-GW07-07C
Sample Date	03/28/06	09/09/07	09/09/07	04/01/06	09/12/07	03/28/06	09/09/07	03/30/06	09/09/07	03/29/06	09/09/07	03/31/06	09/12/07	03/28/06	09/06/07
Chemical Name															
Pesticide/Polychlorinated Biphenyls (UG_L)															
4,4'-DDD	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
4,4'-DDE	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
4,4'-DDT	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Aldrin	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
Aroclor-1016	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1221	2.4 U	0.19 U	0.22 U	2.5 U	0.2 U	2.4 U	0.21 U	2.2 U	0.22 U	2.4 U	0.21 U	2.6 U	0.19 U	2.5 U	0.22 U
Aroclor-1232	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1242	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1248	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1254	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1260	1.2 U	0.19 U	0.22 U	1.3 U	0.2 U	1.2 U	0.21 U	1.1 U	0.22 U	1.2 U	0.21 U	1.3 U	0.19 U	1.2 U	0.22 U
Aroclor-1262	NA	0.19 U	0.22 U	NA	0.2 U	NA	0.21 U	NA	0.22 U	NA	0.21 U	NA	0.19 U	NA	0.22 U
Aroclor-1268	NA	0.19 U	0.22 U	NA	0.2 U	NA	0.21 U	NA	0.22 U	NA	0.21 U	NA	0.19 U	NA	0.22 U
Dieldrin	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Endosulfan I	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
Endosulfan II	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Endosulfan sulfate	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Endrin	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Endrin aldehyde	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Endrin ketone	0.12 U	0.02 U	0.02 U	0.13 U	0.019 U	0.12 U	0.02 U	0.11 U	0.019 U	0.12 U	0.02 U	0.13 U	0.019 U	0.12 U	0.022 U
Heptachlor	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
Heptachlor epoxide	0.06 U	0.01 U	0.01 U	0.24 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.18	0.0094 U	0.06 U	0.011 U
Methoxychlor	0.59 U	0.1 U	0.1 U	0.63 U	0.097 U	0.59 U	0.1 U	0.56 U	0.094 U	0.59 U	0.1 U	0.64 U	0.094 U	0.62 U	0.11 U
Toxaphene	5.9 U	1 U	1 U	6.3 U	0.97 U	5.9 U	1 U	5.6 U	0.94 U	5.9 U	1 U	6.4 U	0.94 U	6.2 U	1.1 U
alpha-BHC	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
alpha-Chlordane	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
beta-BHC	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
delta-BHC	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
gamma-BHC (Lindane)	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
gamma-Chlordane	0.06 U	0.01 U	0.01 U	0.06 U	0.0097 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U
Explosives (UG_L)															
1,3,5-Trinitrobenzene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
1,3-Dinitrobenzene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,4,6-Trinitrotoluene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.065 J	0.25 U	0.26 U	0.25 U
2,4-Dinitrotoluene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.2 J	0.25 U
2,6-Dinitrotoluene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2-Amino-4,6-dinitrotoluene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2-Nitrotoluene	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
3-Nitrotoluene	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
4-Amino-2,6-dinitrotoluene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 UJ	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 UJ	0.26 U	0.25 U
4-Nitrotoluene	0.52 U	0.25 U	0.25 U	0.2 J	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.14 J	0.25 U	1.6	0.25 U
HMX	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
Nitrobenzene	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.077 J	0.25 U
Perchlorate	1 U	NA	NA	1 U	NA	1 U	NA	1 U	NA	1 U	NA	2 U	NA	1 U	NA
RDX	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
Tetryl	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW08			MR04-MW09		MR04-MW10		MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample ID	MR04-MW08-06A	MR04-MW08-06A-D	MR04-GW08-07C	MR04-MW09-06A	MR04-GW09-07C	MR04-MW10-06A	MR04-GW10-07C	MR04-MW11-06A	MR04-GW11-07C	MR04-MW12-06A	MR04-GW12-07C	MR04-MW13-06A	MR04-GW13-07C	MR04-MW14-06A	MR04-GW14-07C	MR04-MW15-06A	MR04-GW15-07C
Sample Date	03/30/06	03/30/06	09/08/07	03/30/06	09/08/07	03/29/06	09/06/07	03/29/06	09/09/07	03/31/06	09/12/07	03/31/06	09/08/07	03/29/06	09/08/07	03/31/06	09/08/07
Chemical Name																	
Pesticide/Polychlorinated Biphenyls (UG_L)																	
4,4'-DDD	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
4,4'-DDE	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
4,4'-DDT	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Aldrin	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
Aroclor-1016	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1221	5 U	2.2 U	0.19 U	2.2 U	0.21 U	2.4 U	0.22 U	2.5 U	0.19 U	2.6 U	0.21 U	2.4 U	0.19 U	2.4 U	0.21 U	2.4 U	0.21 U
Aroclor-1232	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1242	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1248	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1254	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1260	2.5 U	1.1 U	0.19 U	1.1 U	0.21 U	1.2 U	0.22 U	1.3 U	0.19 U	1.3 U	0.21 U	1.2 U	0.19 U	1.2 U	0.21 U	1.2 U	0.21 U
Aroclor-1262	NA	NA	0.19 U	NA	0.21 U	NA	0.22 U	NA	0.19 U	NA	0.21 U	NA	0.19 U	NA	0.21 U	NA	0.21 U
Aroclor-1268	NA	NA	0.19 U	NA	0.21 U	NA	0.22 U	NA	0.19 U	NA	0.21 U	NA	0.19 U	NA	0.21 U	NA	0.21 U
Dieldrin	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Endosulfan I	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
Endosulfan II	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Endosulfan sulfate	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Endrin	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Endrin aldehyde	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Endrin ketone	0.25 U	0.11 U	0.02 U	0.11 U	0.02 U	0.12 U	0.022 U	0.13 U	0.019 U	0.13 U	0.02 U	0.12 U	0.019 U	0.12 U	0.022 U	0.12 U	0.019 U
Heptachlor	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
Heptachlor epoxide	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.12	0.01 U	0.21	0.0094 U	0.06 U	0.011 U	0.19 U	0.0094 U
Methoxychlor	1.3 U	0.56 U	0.099 U	0.56 U	0.098 U	0.59 U	0.11 U	0.63 U	0.094 U	0.65 U	0.1 U	0.59 U	0.094 U	0.59 U	0.11 U	0.59 U	0.094 U
Toxaphene	13 U	5.6 U	0.99 U	5.6 U	0.98 U	5.9 U	1.1 U	6.3 U	0.94 U	6.5 U	1 U	5.9 U	0.94 U	5.9 U	1.1 U	5.9 U	0.94 U
alpha-BHC	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
alpha-Chlordane	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
beta-BHC	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0048 J	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
delta-BHC	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
gamma-BHC (Lindane)	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
gamma-Chlordane	0.13 U	0.06 U	0.0099 U	0.06 U	0.0098 U	0.06 U	0.011 U	0.06 U	0.0094 U	0.07 U	0.01 U	0.06 U	0.0094 U	0.06 U	0.011 U	0.06 U	0.0094 U
Explosives (UG_L)																	
1,3,5-Trinitrobenzene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
1,3-Dinitrobenzene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,4,6-Trinitrotoluene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,4-Dinitrotoluene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.096 J	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2,6-Dinitrotoluene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.32	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2-Amino-4,6-dinitrotoluene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
2-Nitrotoluene	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
3-Nitrotoluene	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
4-Amino-2,6-dinitrotoluene	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
4-Nitrotoluene	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.47 J	0.25 U	0.5 J	0.25 U	0.2 J	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.13 J	0.25 U
HMX	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
Nitrobenzene	0.26 U	0.26 U	0.25 U	0.1 J	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U
Perchlorate	1 U	1 U	NA	1 U	NA	1 U	NA	1 U	NA	2 U	NA	1 U	NA	1 U	NA	1.3	NA
RDX	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U
Tetryl	0.52 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW01			MR04-MW02		MR04-MW03		MR04-MW04		MR04-MW05		MR04-MW06		MR04-MW07	
Sample ID	MR04-MW01-06A	MR04-GW01-07C	MR04-GW01D-07C	MR04-MW02-06A	MR04-GW02-07C	MR04-MW03-06A	MR04-GW03-07C	MR04-MW04-06A	MR04-GW04-07C	MR04-MW05-06A	MR04-GW05-07C	MR04-MW06-06A	MR04-GW06-07C	MR04-MW07-06A	MR04-GW07-07C
Sample Date	03/28/06	09/09/07	09/09/07	04/01/06	09/12/07	03/28/06	09/09/07	03/30/06	09/09/07	03/29/06	09/09/07	03/31/06	09/12/07	03/28/06	09/06/07
Chemical Name															
Total Metals (UG_L)															
Aluminum	1,090	2,400	2,380	665 J	221	1,140	496	232	150 J	1,080	1,340	723	2,730	237	299
Antimony	3.2 U	2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U
Arsenic	2.9 U	1 U	1 U	2.9 U	0.79 J	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	0.58 J	2.9 U	1 U
Barium	200 U	113	113	33.3 J	76.3	229	120	200 U	20.2	200 U	132	200 U	269	200 U	123 J
Beryllium	5 U	0.26 J	0.28 J	0.2 U	5 U	5 U	0.2 J	0.2 U	5 U	0.65 J	0.56 J	5 U	5 U	5 U	0.47 J
Cadmium	0.4 U	1 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	5 U	0.25 J	0.4 U	0.21 J	0.4 U	1 U
Calcium	9,500	11,200	11,200	32,800 J	19,200	5,000 U	671 J	52,000 U	5,000 U	16,000	15,800	19,200	33,000	5,000 U	1,050 J
Chromium	33.4	2 U	2 U	5.5 J	20.6	1 U	2 U	1 U	2 U	1 U	2 U	3 J	9.6	1 U	2 U
Cobalt	50 U	1.4 J	1.4 J	0.9 U	1 U	50 U	2.3 J	0.9 U	0.29 J	2.9 J	3.6 J	1.3 J	1.9	50 U	1.9
Copper	0.7 U	5 U	5 U	25 U	5 U	25 U	5 U	0.7 U	5 U	0.7 U	5 U	25 U	1.2 J	25 U	5 U
Cyanide	5 U	10 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Iron	100 U	100 U	100 U	21.5 J	210	292	100 U	100 U	19.8 J	809	124	842	3,360	215	100 U
Lead	2 U	0.45 J	0.47 J	2 U	1 U	2.2 J	1 U	2 U	1 U	2 U	1 U	2 U	1.2	2 U	0.85 J
Magnesium	7,170	13,400	13,200	2,040 J	1,550 J	7,050	4,650 J	5,000 U	1,460 J	7,460	7,070	5,000 U	764 J	5,000 U	2,440 J
Manganese	15 U	14.1	14.1	50.6 J	45.8	22.1	3.1	8.4 J	1.7	17.6	14.1	160	101	85.2	5.3
Mercury	0.1 U	0.2 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	1.4 U	1.7	1.5	1.4 U	12.8	7 J	2.9	2 J	1 U	4.3 J	4.4	3.6 J	6	12.5 J	2.3
Potassium	7,900	3,960 J	3,870 J	32,000 J	21,400	5,000 U	2,260 J	5,000 U	1,060 J	1,550 J	1,880 J	75,200	45,200	5,000 U	5,000 U
Selenium	5.8	6.8 J	6.9 J	3.1 U	0.54 J	5.7	2.1 J	3.1 U	0.31 J	3.1 U	2 J	3.1 U	5 U	4.1 J	1.6 J
Silver	0.7 U	1 U	1 U	0.7 U	1 U	0.7 U	1 U	4.7 J	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	4,830 J	4,050 J	4,000 J	32,100 J	17,700	21,200	24,100	14,100	13,600	6,230	6,420	69,300	29,200	8,870	6,910 U
Thallium	2.2 U	1 U	1 U	5.2 J	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	0.9 U	5 U	5 U	5.5 J	5 U	0.9 U	5 U	0.9 U	5 U	0.9 U	5 U	3.2 J	3.6 J	0.9 U	5 U
Zinc	20 U	10 R	10 R	20 U	10 U	41.8	10.5 J	20 U	10 R	29	34.2 J	20 U	12.4	57.3 J	10 U
Dissolved Metals (UG_L)															
Aluminum	1,110	2,360	2,290	128 J	200 U	891	475	214	130 J	1,000	1,290	200 U	200 U	197 J	247
Antimony	3.2 U	2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U
Arsenic	2.9 U	1 U	1 U	2.9 U	0.58 J	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U
Barium	200 U	111	114	30.7 J	59.1	224	119	200 U	20.7	200 U	133	200 U	106	200 U	118 J
Beryllium	5 U	0.32 J	0.28 J	0.2 U	5 U	5 U	0.22 J	0.2 U	5 U	0.73 J	0.63 J	0.2 U	5 U	5 U	0.46 J
Cadmium	0.4 U	1 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	5 U	0.26 J	0.4 U	1 U	0.4 U	1 U
Calcium	9,690	11,100	11,100	31,400 J	17,200	5,000 U	666 J	5,000 U	5,000 U	15,700	15,500	18,200	21,300	5,000 U	1,030 J
Chromium	30.1	2 U	2 U	4.9 J	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	0.9 U	1.3 J	1.4 J	0.9 U	0.41 J	50 U	2.2 J	0.9 U	0.29 J	2.9 J	3.6 J	0.9 U	0.76 J	50 U	1.9
Copper	0.7 U	5 U	5 U	25 U	5 U	25 U	5 U	0.7 U	5 U	0.7 U	5 U	25 U	5 U	25 U	5 U
Iron	17.9 U	100 U	100 U	17.9 U	46 J	301	15.4 J	100 U	16.7 J	867	306	100 U	749	221	100 U
Lead	2 U	0.56 J	0.58 J	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	0.97 J
Magnesium	7,470	13,200	13,200	1,880 J	1,440 J	6,970	4,670 J	5,000 U	1,510 J	7,460	7,090	5,000 U	437 J	5,000 U	2,450 J
Manganese	15 U	13.6	14.4	46.4 J	38.3	22.3	3.1	8.3 J	1.8	18.5	15.7	140	56	91.5	5.5
Mercury	0.1 U	0.2 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	1.4 U	1.7 U	1.9 U	1.7 J	3.3	6.3 J	2.6 U	1.6 J	1 U	4.9 J	4.4	1.9 J	2.1	13.6 J	2.3
Potassium	7,400	3,890 J	3,840 J	30,800 J	20,000	5,000 U	2,250 J	5,000 U	1,160 J	1,570 J	1,950 J	67,700	47,000	5,000 U	5,000 U
Selenium	6.1	6.7 J	6.9 J	3.1 U	0.35 J	5.2	2.1 J	3.1 U	0.33 J	3.1 J	2 J	3.1 U	5 U	3.4 J	1.2 J
Silver	0.7 U	1 U	1 U	0.7 U	1 U	10 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	4,590 J	4,010 J	4,020 J	31,300 J	17,000	21,000	24,600	14,200	14,000	6,060	6,480	66,100	30,500	8,650	6,860 U
Thallium	10 U	1 U	1 U	2.2 U	0.051 J	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	0.9 U	5 U	5 U	5.5 J	5 U	0.9 U	5 U	0.9 U	5 U	0.9 U	2.1 J	2.3 J	5 U	0.9 U	5 U
Zinc	20 U	10 R	10 R	20 U	10 U	39.6	7.3 J	20 U	12.7 J	28.9	36.1 J	20 U	10 U	67 J	10 U
Wet Chemistry (MG_L)															
Perchlorate	NA	1.70E-04 J	1.70E-04 J	NA	6.80E-05 J	NA	2.60E-04	NA	2.00E-04 U	NA	2.00E-04 U	NA	2.00E-04 U	NA	2.50E-04
Total organic carbon (TOC)	6.4	NA	NA	2.4 J	NA	2	NA	6.4 J	NA	6.6	NA	8.5 J	NA	2.3	NA
Total organic halogens (TOX)	0.01 U	NA	NA	0.016 J	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA
Total Petroleum Hydrocarbons (UG_L)															
Oil and Grease	5,300 UJ	NA	NA	5,800 U	NA	5,600 UJ	NA	1,200 U	NA	5,500 UJ	NA	1,200 U	NA	5,900 UJ	NA
TPH-diesel range	83 U	NA	NA	73 U	NA	110 U	NA	97 U	NA	90 U	NA	120 U	NA	140 U	NA
TPH-gas range	100 UJ	NA	NA	47 J	NA	100 UJ	NA	100 U	NA	100 U	NA	26 J	NA	100 UJ	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
R- Unreliable result
NA- Not analyzed
Shading represents detection

Phase I and II Groundwater Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-MW08			MR04-MW09		MR04-MW10		MR04-MW11		MR04-MW12		MR04-MW13		MR04-MW14		MR04-MW15	
Sample ID	MR04-MW08-06A	MR04-MW08-06A-D	MR04-GW08-07C	MR04-MW09-06A	MR04-GW09-07C	MR04-MW10-06A	MR04-GW10-07C	MR04-MW11-06A	MR04-GW11-07C	MR04-MW12-06A	MR04-GW12-07C	MR04-MW13-06A	MR04-GW13-07C	MR04-MW14-06A	MR04-GW14-07C	MR04-MW15-06A	MR04-GW15-07C
Sample Date	03/30/06	03/30/06	09/08/07	03/30/06	09/08/07	03/29/06	09/06/07	03/29/06	09/09/07	03/31/06	09/12/07	03/31/06	09/08/07	03/29/06	09/08/07	03/31/06	09/08/07
Chemical Name																	
Total Metals (UG_L)																	
Aluminum	200 U	200 U	200 U	200 U	200 U	523	700	211	156 J	303	216	200 U	200 U	200 U	200 U	1,300	200 U
Antimony	3.2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U
Arsenic	2.9 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	0.69 J	2.9 U	1 U	2.9 U	1 U	2.9 U	0.71 J
Barium	200 U	200 U	42.9	200 U	10 U	200 U	94.1 J	200 U	30.9	200 U	17.7	200 U	25.7	200 U	30.8	200 U	10 U
Beryllium	0.22 J	0.2 U	5 U	0.2 U	5 U	0.2 U	0.16 J	0.2 U	5 U	0.2 U	5 U	0.2 U	5 U	5 U	5 U	0.2 U	5 U
Cadmium	0.4 U	0.4 U	1 U	0.4 U	0.36 J	5 U	1 U	5 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U
Calcium	5,000 U	5,000 U	5,000 U	24,600	4,550 J	5,000 U	4,020 J	5,000 U	5,000 U	21,900	40,100	5,000 U	5,000 U	5,000 U	5,000 U	44,400	36,100
Chromium	1 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	446	1.7 J	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	0.9 U	0.9 U	1 U	3.5 J	2.4 J	2.3 J	1.5	2.1 J	1 U	0.9 U	1 U	0.9 U	1 U	50 U	0.32 J	0.9 U	1 U
Copper	0.7 U	0.7 U	5 U	0.7 U	1.7 J	0.7 U	5 U	0.7 U	5 U	25 U	5 U	25 U	5 U	25 U	5 U	25 U	5 U
Cyanide	5 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Iron	100 U	100 U	17.3 J	106	442	228	516	103	100 U	170	225	25 U	125	100 U	69.4 J	100 U	47.2 J
Lead	2 U	2 U	1 U	2 U	1 U	2 U	1.5	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U
Magnesium	5,000 U	5,000 U	1,080 J	5,000 U	516 J	8,100	9,250	5,000 U	1,080 J	5,000 U	830 J	5,000 U	919 J	5,000 U	702 J	5,000 U	605 J
Manganese	1.9 J	1.9 J	2.3	105	67.6	22.6	7.2	20.1	2.5	2.4 J	7	13.5 J	1.6	15 U	2.3	0.68 J	7.1
Mercury	0.1 U	0.1 U	0.054 J	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	1.4 U	1.4 U	1 U	10.6 J	7.8	4.1 J	0.58 J	5.1 J	0.76 J	2.9 J	1	1.7 J	1 U	1.7 J	1 U	1.6 J	1 U
Potassium	5,000 U	5,000 U	1,190 J	5,000 U	1,150 J	1,700 J	5,000 U	1,210 J	1,800 J	121,000	9,680	941 U	1,130 J	524 J	578 J	5,000 U	3,030 J
Selenium	3.1 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	1.8 J	3.1 U	0.34 J	3.1 U	5 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	5 UJ
Silver	0.7 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.74 J	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	5,420	5,350	9,790	20,300	39,500	7,580	10,500 U	7,080	9,660	59,500	11,500	8,190	10,600	6,160	5,800	12,700	7,530
Thallium	2.2 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U
Vanadium	0.9 U	0.9 U	0.89 J	2.3 J	1 J	0.9 U	5 U	0.9 U	5 U	11.2 J	1.8 J	0.9 U	5 U	0.9 U	5 U	15.1 J	5 U
Zinc	20 U	20 U	10 R	20 U	23.8 J	23	10 U	30	6.6 J	20 U	10 U	20 U	10 R	20 U	10 R	20 U	10 R
Dissolved Metals (UG_L)																	
Aluminum	200 U	200 U	200 U	200 U	200 U	491	582	214	150 J	207	200 U	200 U	200 U	200 U	200 U	1,240	200 U
Antimony	3.2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U	3.2 U	2 U
Arsenic	2.9 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	1 U	2.9 U	0.89 J	2.9 U	1 U	2.9 U	1 U	2.9 U	0.73 J
Barium	200 U	200 U	42.1	200 U	10 U	200 U	95 J	200 U	34.3	200 U	11.6 U	200 U	25.4	200 U	29.6	200 U	10 U
Beryllium	0.2 U	0.2 U	5 U	0.2 U	5 U	0.21 J	0.18 J	0.2 U	5 U	0.2 U	5 U	0.2 U	5 U	0.25 J	5 U	0.2 U	5 U
Cadmium	0.4 U	0.4 U	1 U	0.4 U	0.37 J	0.4 U	1 U	5 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U	0.4 U	1 U
Calcium	5,000 U	5,000 U	5,000 U	23,600	4,440 J	5,000 U	4,270 J	5,000 U	5,000 U	19,800	37,000	5,000 U	5,000 U	5,000 U	5,000 U	44,600	36,300
Chromium	1 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	393	2 U	1 U	2 U	1 U	2 U	1 U	2 U
Cobalt	0.9 U	0.9 U	1 U	3.3 J	2.3 J	2 J	1.5	2.2 J	0.83 J	0.9 U	1 U	0.9 U	1 U	0.98 J	0.33 J	0.9 U	1 U
Copper	0.7 U	0.7 U	5 U	0.7 U	1.3 J	0.7 U	5 U	25 U	5 U	25 U	0.85 J	25 U	5 U	0.7 U	5 U	25 U	5 U
Iron	17.9 U	100 U	100 U	100 U	402	116	95.5 J	100 U	100 U	17.9 U	100 U	100 U	120	100 U	21.2 J	100 U	25.9 J
Lead	2 U	2 U	1 U	2 U	1 U	2 U	1.4	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U
Magnesium	5,000 U	5,000 U	1,050 J	5,000 U	508 J	8,100	9,690	5,000 U	1,200 J	5,000 U	864 J	5,000 U	864 J	5,000 U	676 J	5,000 U	607 J
Manganese	1.7 J	1.7 J	2.1	104	63.2	22.3	7.3	20	3	0.2 U	2.8	13.4 J	1.7	15 U	2.1	0.2	6.5
Mercury	0.1 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U
Nickel	1.4 U	1.6 J	1 U	10.8 J	7.1	5.1 J	0.78 J	4.2 J	0.87 J	2.2 J	8.6	1.7 J	1 U	2 J	1 U	1.5 J	1 U
Potassium	5,000 U	5,000 U	1,150 J	5,000 U	1,220 J	1,700 J	5,000 U	1,260 J	1,540 J	111,000	9,210	5,000 U	978 J	497 J	555 J	5,000 U	3,150 J
Selenium	3.1 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	1.6 J	3.1 U	0.48 J	4.1 J	5 U	3.1 U	5 UJ	3.1 U	5 UJ	3.1 U	5 UJ
Silver	1.1 J	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U	0.7 U	1 U
Sodium	5,280	5,330	9,630	19,900	37,000	7,450	11,000 U	6,930	8,920	56,800	11,100	8,200	9,450	5,930	5,900	12,900	7,720
Thallium	2.2 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	2.2 U	1 U	10 U	1 U
Vanadium	0.9 U	0.9 U	5 U	2.1 J	1.7 J	0.9 U	5 U	0.9 U	5 U	10.8 J	2.3 J	0.9 U	1.3 J	0.9 U	5 U	14.6 J	5 U
Zinc	20 U	20 U	10 R	20 U	18.3 J	20.5	10 U	24.7	10 R	20 U	10 U	20 U	10 R	20 U	10 R	20 U	10 R
Wet Chemistry (MG_L)																	
Perchlorate	NA	NA	1.60E-04 J	NA	2.00E-04 U	NA	9.70E-05 J	NA	2.50E-04	NA	2.00E-04 U	NA	2.00E-04 U	NA	3.00E-04	NA	2.00E-04 U
Total organic carbon (TOC)	1 UJ	1 UJ	NA	1.6 J	NA	1.8	NA	6.6	NA	7.3 J	NA	6 J	NA	1 U	NA	8.1 J	NA
Total organic halogens (TOX)	0.02 U	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA	0.013 J	NA	0.01 U	NA	0.01 U	NA	0.01 U	NA
Total Petroleum Hydrocarbons (UG_L)																	
Oil and Grease	1,200 U	1,200 U	NA	1,100 U	NA	5,400 UJ	NA	5,400 UJ	NA	1,200 U	NA	1,200 U	NA	7,200 J	NA	1,100 U	NA
TPH-diesel range	72 U	72 U	NA	74 U	NA	90 U	NA	79 U	NA	180 U	NA	86 U	NA	64 U	NA	100 U	NA
TPH-gas range	100 U	100 U	NA	100 U	NA	100 U	NA	100 U	NA	35 J	NA	100 U	NA	100 U	NA	100 U	NA

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
R- Unreliable result
NA- Not analyzed
Shading represents detection

Phase I and II Surface Water Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01		MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04			MR04-SD05/SW05		MR04-SD06/SW06		MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09	MR04-SD10/SW10
Sample ID	MR04-SW01-06A	MR04-SW01-07C	MR04-SW02-06A	MR04-SW02-07C	MR04-SW03-06A	MR04-SW03-07C	MR04-SW04-06A	MR04-SW04-07C	MR04-SW04D-07C	MR04-SW05-06A	MR04-SW05-07C	MR04-SW06-06A	MR04-SW06-07C	MR04-SW07-06A	MR04-SW08-06A	MR04-SW08-07C	MR04-SW09-06A	MR04-SW10-06A
Sample Date	04/01/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	09/07/07	09/07/07	04/02/06	09/07/07	04/02/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/02/06
Chemical Name																		
Volatile Organic Compounds (UG_L)																		
1,1,1-Trichloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,1,2-Trichloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,1-Dichloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,1-Dichloroethene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2,3-Trichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	NA	NA
1,2,4-Trichlorobenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2-Dibromo-3-chloropropane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2-Dibromoethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2-Dichlorobenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2-Dichloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,2-Dichloropropane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,3-Dichlorobenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
1,4-Dichlorobenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
2-Butanone	10 U	5 R	10 U	5 R	10 U	5 R	10 U	5 R	5 R	10 U	5 R	10 U	5 R	10 UJ	10 UJ	5 R	10 UJ	10 UJ
2-Hexanone	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	5 U	10 U	5 U	10 U	5 U	10 U	10 U	5 U	10 U	10 U
4-Methyl-2-pentanone	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	5 U	10 U	5 U	10 U	5 U	10 U	10 U	5 U	10 U	10 U
Acetone	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	5 R	5 R	10 UJ	5 R	10 UJ	5 R	10 UJ	10 UJ	5 R	10 UJ	10 UJ
Benzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Bromochloromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	NA	NA
Bromodichloromethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Bromoform	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Bromomethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Carbon disulfide	10 U	0.32 J	10 U	0.22 J	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.27 J	10 U	0.5 U	10 U	10 U	1.4	10 U	10 U
Carbon tetrachloride	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Chlorobenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Chloroethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Chloroform	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Chloromethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Cyclohexane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Dibromochloromethane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Dichlorodifluoromethane (Freon-12)	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Ethylbenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Isopropylbenzene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Methyl acetate	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	0.5 R	10 UJ	0.5 R	10 UJ	0.5 R	10 U	10 U	0.5 R	10 U	10 U
Methyl-tert-butyl ether (MTBE)	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Methylcyclohexane	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Methylene chloride	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Styrene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Tetrachloroethene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Toluene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	3 J	0.5 U	10 U	10 U
Trichloroethene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Trichlorofluoromethane(Freon-11)	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Vinyl chloride	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
Xylene, total	10 U	NA	10 U	NA	10 U	NA	10 U	NA	NA	10 U	NA	10 U	NA	10 U	10 U	NA	10 U	10 U
cis-1,2-Dichloroethene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
m- and p-Xylene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	NA	NA
o-Xylene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	NA	NA
trans-1,2-Dichloroethene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	10 U	10 U

Phase I and II Surface Water Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01		MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04			MR04-SD05/SW05		MR04-SD06/SW06		MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09	MR04-SD10/SW10
Sample ID	MR04-SW01-06A	MR04-SW01-07C	MR04-SW02-06A	MR04-SW02-07C	MR04-SW03-06A	MR04-SW03-07C	MR04-SW04-06A	MR04-SW04-07C	MR04-SW04D-07C	MR04-SW05-06A	MR04-SW05-07C	MR04-SW06-06A	MR04-SW06-07C	MR04-SW07-06A	MR04-SW08-06A	MR04-SW08-07C	MR04-SW09-06A	MR04-SW10-06A
Sample Date	04/01/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	09/07/07	09/07/07	04/02/06	09/07/07	04/02/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/02/06
Chemical Name																		
Semi-volatile Organic Compounds (UG_L)																		
1,1-Biphenyl	11 UJ	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
1,2,4,5-Tetrachlorobenzene	NA	5.2 U	NA	5.1 U	NA	5.1 U	NA	5.1 U	5 U	NA	5.4 U	NA	5.2 U	NA	NA	5.2 U	NA	NA
2,2'-Oxybis(1-chloropropane)	11 U	5.2 U	13 UJ	5.1 U	12 U	5.1 U	13 UJ	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 UJ	5.2 U	13 U	12 U
2,3,4,6-Tetrachlorophenol	NA	5.2 U	NA	5.1 U	NA	5.1 U	NA	5.1 U	5 U	NA	5.4 U	NA	5.2 U	NA	NA	5.2 U	NA	NA
2,4,5-Trichlorophenol	28 U	5.2 U	33 U	5.1 U	30 U	5.1 U	32 U	5.1 U	5 U	32 U	5.4 U	30 U	5.2 U	35 U	28 U	5.2 U	31 U	31 U
2,4,6-Trichlorophenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2,4-Dichlorophenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2,4-Dimethylphenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2,4-Dinitrophenol	28 U	10 U	33 U	10 U	30 U	10 U	32 U	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 U	10 U	31 U	31 U
2,4-Dinitrotoluene	NA	5.2 U	NA	5.1 U	NA	5.1 U	NA	5.1 U	5 U	NA	5.4 U	NA	5.2 U	NA	NA	5.2 U	NA	NA
2,6-Dinitrotoluene	NA	5.2 U	NA	5.1 U	NA	5.1 U	NA	5.1 U	5 U	NA	5.4 U	NA	5.2 U	NA	NA	5.2 U	NA	NA
2-Chloronaphthalene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2-Chlorophenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2-Methylnaphthalene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2-Methylphenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
2-Nitroaniline	28 UJ	10 U	33 UJ	10 U	30 U	10 U	32 UJ	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 UJ	10 U	31 U	31 U
2-Nitrophenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
3,3'-Dichlorobenzidine	11 UJ	5.2 U	13 UJ	5.1 U	12 UJ	5.1 U	13 UJ	5.1 U	5 U	13 UJ	5.4 U	12 UJ	5.2 U	14 UJ	11 UJ	5.2 U	13 UJ	12 UJ
3-Nitroaniline	28 U	10 U	33 U	10 U	30 U	10 U	32 U	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 U	10 U	31 U	31 U
4,6-Dinitro-2-methylphenol	28 U	10 U	33 U	10 U	30 U	10 U	32 U	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 U	10 U	31 U	31 U
4-Bromophenyl-phenylether	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
4-Chloro-3-methylphenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
4-Chloroaniline	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
4-Chlorophenyl-phenylether	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
4-Methylphenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
4-Nitroaniline	28 U	10 U	33 U	10 U	30 UJ	10 U	32 U	10 U	9.9 U	32 UJ	11 U	30 UJ	10 U	35 UJ	28 U	10 U	31 UJ	31 UJ
4-Nitrophenol	28 U	10 U	33 U	10 U	30 U	10 U	32 U	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 U	10 U	31 U	31 U
Acenaphthene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Acenaphthylene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Acetophenone	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Anthracene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Atrazine	11 UJ	5.2 U	13 UJ	5.1 U	12 UJ	5.1 U	13 UJ	5.1 U	5 U	13 UJ	5.4 U	12 UJ	5.2 U	14 UJ	11 UJ	5.2 U	13 UJ	12 UJ
Benzaldehyde	11 UJ	5.2 U	13 UJ	5.1 U	12 UJ	5.1 U	13 UJ	5.1 U	5 U	13 UJ	5.4 U	12 UJ	5.2 U	14 UJ	11 UJ	5.2 U	13 UJ	12 UJ
Benzo(a)anthracene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Benzo(a)pyrene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Benzo(b)fluoranthene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Benzo(g,h,i)perylene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Benzo(k)fluoranthene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Butylbenzylphthalate	11 U	1.3 J	13 U	0.63 J	12 U	0.64 J	13 U	1.1 J	0.87 J	13 U	5.4 U	12 U	5.2 U	14 U	11 U	0.78 J	13 U	12 U
Caprolactam	11 U	5.2 U	13 UJ	5.1 U	12 U	5.1 U	13 UJ	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 UJ	5.2 U	13 U	12 U
Carbazole	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Chrysene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Di-n-butylphthalate	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Di-n-octylphthalate	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Dibenz(a,h)anthracene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Dibenzofuran	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Diethylphthalate	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Dimethyl phthalate	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Fluoranthene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Fluorene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Hexachlorobenzene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Hexachlorobutadiene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Hexachlorocyclopentadiene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Hexachloroethane	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Indeno(1,2,3-cd)pyrene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Isophorone	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Naphthalene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Nitrobenzene	NA	5.2 U	NA	5.1 U	NA	5.1 U	NA	5.1 U	5 U	NA	5.4 U	NA	5.2 U	NA	NA	5.2 U	NA	NA
Pentachlorophenol	28 U	10 U	33 U	10 U	30 U	10 U	32 U	10 U	9.9 U	32 U	11 U	30 U	10 U	35 U	28 U	10 U	31 U	31 U
Phenanthrene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Phenol	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
Pyrene	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
bis(2-Chloroethoxy)methane	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
bis(2-Chloroethyl)ether	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U
bis(2-Ethylhexyl)phthalate	2.3 J	5.2 U	2.1 J	5.1 U	12 U	5.1 U	2.1 J	13	5 U	1.4 J	5.4 U	2 J	5.2 U	16	3.3 J	5.2 U	3.8 J	12 U
n-Nitroso-di-n-propylamine	11 UJ	5.2 U	13 UJ	5.1 U	12 U	5.1 U	13 UJ	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 UJ	5.2 U	13 U	12 U
n-Nitrosodiphenylamine	11 U	5.2 U	13 U	5.1 U	12 U	5.1 U	13 U	5.1 U	5 U	13 U	5.4 U	12 U	5.2 U	14 U	11 U	5.2 U	13 U	12 U

Phase I and II Surface Water Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01		MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04			MR04-SD05/SW05		MR04-SD06/SW06		MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09	MR04-SD10/SW10
Sample ID	MR04-SW01-06A	MR04-SW01-07C	MR04-SW02-06A	MR04-SW02-07C	MR04-SW03-06A	MR04-SW03-07C	MR04-SW04-06A	MR04-SW04-07C	MR04-SW04D-07C	MR04-SW05-06A	MR04-SW05-07C	MR04-SW06-06A	MR04-SW06-07C	MR04-SW07-06A	MR04-SW08-06A	MR04-SW08-07C	MR04-SW09-06A	MR04-SW10-06A
Sample Date	04/01/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	09/07/07	09/07/07	04/02/06	09/07/07	04/02/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/02/06
Chemical Name																		
Pesticide/Polychlorinated Biphenyls (UG_L)																		
4,4'-DDD	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.01 J	0.12 U	0.022 U	0.13 U	0.12 U
4,4'-DDE	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
4,4'-DDT	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Aldrin	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.011 U	0.06 U	0.06 U
Aroclor-1016	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1221	2.4 U	0.21 U	2.5 U	0.24 U	2.5 U	0.21 U	2.5 U	0.2 U	0.2 U	2.3 U	0.21 U	2.2 U	0.19 U	2.4 U	2.3 U	0.22 U	2.5 U	2.4 U
Aroclor-1232	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1242	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1248	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1254	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1260	1.2 U	0.21 U	1.2 U	0.24 U	1.3 U	0.21 U	1.3 U	0.2 U	0.2 U	1.1 U	0.21 U	1.1 U	0.19 U	1.2 U	1.2 U	0.22 U	1.3 U	1.2 U
Aroclor-1262	NA	0.21 U	NA	0.24 U	NA	0.21 U	NA	0.2 U	0.2 U	NA	0.21 U	NA	0.19 U	NA	NA	0.22 U	NA	NA
Aroclor-1268	NA	0.21 U	NA	0.24 U	NA	0.21 U	NA	0.2 U	0.2 U	NA	0.21 U	NA	0.19 U	NA	NA	0.22 U	NA	NA
Dieldrin	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.02 J	0.022 U	0.04 J	0.12 U	0.013 J	0.13 U	0.12 U
Endosulfan I	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.011 U	0.06 U	0.06 U
Endosulfan II	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Endosulfan sulfate	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Endrin	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Endrin aldehyde	0.04 J	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Endrin ketone	0.12 U	0.021 U	0.12 U	0.022 U	0.13 U	0.021 U	0.13 U	0.022 U	0.02 U	0.11 U	0.02 U	0.11 U	0.022 U	0.12 U	0.12 U	0.022 U	0.13 U	0.12 U
Heptachlor	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.0059 J	0.06 U	0.06 U	0.014 J	0.06 U	0.06 U
Heptachlor epoxide	0.08 U	0.011 U	0.09 U	0.011 U	0.19 U	0.01 U	0.16 U	0.011 U	0.01 U	0.07 U	0.01 U	0.1 U	0.011 U	0.2 U	0.07 U	0.011 U	0.06 U	0.06 U
Methoxychlor	0.59 U	0.11 U	0.62 U	0.11 U	0.63 U	0.1 U	0.63 U	0.11 U	0.1 U	0.57 U	0.1 U	0.56 U	0.11 U	0.6 U	0.58 U	0.11 U	0.63 U	0.59 U
Toxaphene	5.9 U	1.1 U	6.2 U	1.1 U	6.3 U	1 U	6.3 U	1.1 U	1 U	5.7 U	1 U	5.6 U	1.1 U	6 U	5.8 U	1.1 U	6.3 U	5.9 U
alpha-BHC	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.0064 J	0.06 U	0.06 U
alpha-Chlordane	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.011 U	0.06 U	0.06 U
beta-BHC	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.0063 J	0.06 U	0.06 U	0.011 J	0.06 U	0.06 U
delta-BHC	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.018 J	0.06 U	0.06 U
gamma-BHC (Lindane)	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.011 U	0.06 U	0.06 U
gamma-Chlordane	0.06 U	0.011 U	0.06 U	0.011 U	0.06 U	0.01 U	0.06 U	0.011 U	0.01 U	0.06 U	0.01 U	0.06 U	0.011 U	0.06 U	0.06 U	0.011 U	0.06 U	0.06 U
Explosives (UG_L)																		
1,3,5-Trinitrobenzene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
1,3-Dinitrobenzene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
2,4,6-Trinitrotoluene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
2,4-Dinitrotoluene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
2,6-Dinitrotoluene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
2-Amino-4,6-dinitrotoluene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
2-Nitrotoluene	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.52 U	0.25 U	0.52 U	0.52 U
3-Nitrotoluene	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.52 U	0.25 U	0.52 U	0.52 U
4-Amino-2,6-dinitrotoluene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 UJ	0.26 U	0.26 U	0.25 UJ	0.26 U	0.26 U
4-Nitrotoluene	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.52 U	0.25 U	0.52 U	0.52 U
HMX	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.52 U	0.25 U	0.52 U	0.52 U
Nitrobenzene	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U
Perchlorate	50 U	NA	5 U	NA	50 U	NA	50 U	NA	NA	50 U	NA	50 U	NA	10 U	1 U	NA	1 U	1 U
RDX	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.52 U	0.25 U	0.52 U	0.52 U
Tetryl	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 U	0.25 U	0.52 U	0.25 U	0.52 U	0.25 UJ	0.52 U	0.52 U	0.25 UJ	0.52 U	0.52 U

Phase I and II Surface Water Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01		MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04			MR04-SD05/SW05		MR04-SD06/SW06		MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09	MR04-SD10/SW10
Sample ID	MR04-SW01-06A	MR04-SW01-07C	MR04-SW02-06A	MR04-SW02-07C	MR04-SW03-06A	MR04-SW03-07C	MR04-SW04-06A	MR04-SW04-07C	MR04-SW04D-07C	MR04-SW05-06A	MR04-SW05-07C	MR04-SW06-06A	MR04-SW06-07C	MR04-SW07-06A	MR04-SW08-06A	MR04-SW08-07C	MR04-SW09-06A	MR04-SW10-06A
Sample Date	04/01/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	09/07/07	09/07/07	04/02/06	09/07/07	04/02/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/02/06
Chemical Name																		
Total Metals (UG_L)																		
Aluminum	3,210 J	502	323 J	1,640	2,810 J	254	7,150 J	221	227	2,070 J	1,720	345 J	893	200 U	480 J	320	1,680 J	200 U
Antimony	3.2 U	20 U	3.2 U	2.6 J	3.2 U	20 U	3.2 U	20 U	20 U	3.2 U	10 U	3.2 U	10 U	3.2 U	3.2 U	20 U	3.2 U	3.2 U
Arsenic	2.9 U	14.1	2.9 U	11.3	2.9 U	15.4	3.1 J	5.7 J	12.8	3.3 J	16.8 J	2.9 U	17.6 J	2.9 U	2.9 U	10.6	2.9 U	2.9 U
Barium	200 U	20 J	200 U	76.6 J	200 U	10.9 J	200 U	15.4 J	14.2 J	200 U	50 U	200 U	13.2 J	200 U	200 U	26.8 J	200 U	200 U
Beryllium	0.22 J	5 U	0.2 U	5 U	0.2 U	5 U	0.37 J	5 U	5 U	0.21 J	5 U	0.2 U	5 U	0.2 U	0.2 U	5 U	0.23 J	0.2 U
Cadmium	0.4 U	10 U	0.4 U	10 U	0.4 U	10 U	0.4 U	10 U	10 U	0.4 U	5 U	0.4 U	5 U	0.4 U	0.4 U	10 U	0.4 U	0.4 U
Calcium	151,000 J	280,000	50,100 J	284,000	152,000 J	276,000	154,000	271,000	269,000	161,000	288,000	101,000	274,000	58,100	5,360	228,000	23,400	23,000
Chromium	4 J+	3.4 J	1.2 J	3.4 J	2.2 J+	2 J	8.2 J+	2.9 J	5.1 J	2.5 J+	3.4 J	1 U	3.5 J	1 U	1 U	20 U	2.7 J	1 U
Cobalt	0.9 U	0.95 J	0.9 U	10 U	0.9 U	10 U	0.9 U	10 U	10 U	0.9 U	4.2 J	0.9 U	4.4 J	0.9 U	0.9 U	10 U	0.9 U	0.9 U
Copper	25 U	50 U	25 U	50 U	25 U	50 U	25 U	50 U	50 U	25 U	125 U	25 U	125 U	0.7 U	0.7 U	50 U	25 U	25 U
Cyanide	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	10 U	5 U	10 U	5 U	10 U	5 U	5 U	10 U	5 U	5 U
Iron	2,470 J	420	3,020 J	724	2,580 J	161	4,970	123	136	1,810	885	477	415	576	1,370	303	1,210	257
Lead	2 U	1.4 J	2 U	10 U	4.6 J+	10 U	8.4 J+	10 U	0.89 J	2 U	5 U	2 J	2.8 J	2 U	2 U	1.3 J	12.6	2 U
Magnesium	430,000 J	876,000	45,500 J	869,000	438,000 J	852,000	445,000	839,000	834,000	469,000	920,000	270,000	889,000	104,000	5,000 U	661,000	7,660	5,000 U
Manganese	32.5 J+	39.6	69.1 J	30.7	36.9 J+	37.5	40.7 J+	30.6	30.6	112 J+	27.2	53.6	30.6	31.6	20.2	32.5	15 U	15 U
Mercury	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U
Nickel	1.4 U	10 U	1.4 U	10 U	1.4 U	10 U	2.7 J+	10 U	10 U	1.4 U	25 U	1.4 U	25 U	1.4 U	1.4 U	10 U	1.7 J	1.4 U
Potassium	147,000 J	267,000	17,300 J	269,000	148,000 J	272,000	154,000	270,000	270,000	158,000	289,000	92,200	271,000	35,400	5,000 U	220,000	5,000 U	5,000 U
Selenium	3.1 U	29.1 J	3.1 U	50.5	3.1 U	30.5 J	3.1 U	21 J	29.5 J	3.1 U	44.3 J	3.1 U	54 J	3.1 U	3.1 U	16.8 J	3.1 U	3.1 U
Silver	0.7 U	10 U	0.7 U	10 U	0.7 U	10 U	0.7 U	10 U	10 U	0.7 U	0.21 J	0.7 U	0.25 J	0.7 U	0.7 U	10 U	0.7 U	0.7 U
Sodium	3,650,000 J	7,150,000	418,000 J	7,150,000	3,670,000 J	7,160,000	3,770,000	6,950,000	7,140,000	3,880,000	7,120,000	2,190,000	6,770,000	834,000	8,490	5,780,000	42,700	15,400
Thallium	2.2 U	1 J	2.2 U	10 U	2.2 U	1 J	2.2 U	1.1 J	1 J	3.8 J-	5 U	2.2 U	0.65 J	2.2 U	2.2 U	1.2 J	2.2 U	2.2 U
Vanadium	6.6 J	50 U	1.6 J	50 U	5.8 J	25.6 J	12.1 J	50 U	50 U	3.5 J	6.4 J	1.1 J	4.6 J	0.9 U	0.9 U	50 U	2.7 J	0.9 U
Zinc	20 U	100 U	20 U	100 U	23.8 J+	100 U	20.4 J+	100 U	100 U	20 U	50 R	20 U	50 R	20 U	20 U	100 U	31.9 J	20 U
Dissolved Metals (UG_L)																		
Aluminum	NA	438	NA	1,440	NA	219	NA	218	198 J	NA	1,180	NA	1,500	NA	NA	334	NA	NA
Antimony	NA	20 U	NA	20 U	NA	20 U	NA	20 U	20 U	NA	10 U	NA	10 U	NA	NA	20 U	NA	NA
Arsenic	NA	9 J	NA	16.3	NA	8.9 J	NA	6.1 J	6.6 J	NA	18.2 J	NA	14.2 J	NA	NA	7.1 J	NA	NA
Barium	NA	17.2 J	NA	51.4 J	NA	11.9 J	NA	14 J	14 J	NA	50 U	NA	50 U	NA	NA	26.2 J	NA	NA
Beryllium	NA	5 U	NA	5 U	NA	5 U	NA	5 U	5 U	NA	5 U	NA	5 U	NA	NA	5 U	NA	NA
Cadmium	NA	10 U	NA	10 U	NA	10 U	NA	10 U	10 U	NA	5 U	NA	5 U	NA	NA	10 U	NA	NA
Calcium	NA	280,000	NA	281,000	NA	271,000	NA	271,000	274,000	NA	279,000	NA	276,000	NA	NA	228,000	NA	NA
Chromium	NA	20 U	NA	20 U	NA	3.2 J	NA	4.3 J	4.1 J	NA	3.8 J	NA	2.7 J	NA	NA	20 U	NA	NA
Cobalt	NA	1 J	NA	10 U	NA	10 U	NA	10 U	10 U	NA	4.1 J	NA	4.2 J	NA	NA	1.7 J	NA	NA
Copper	NA	50 U	NA	50 U	NA	50 U	NA	50 U	50 U	NA	125 U	NA	125 U	NA	NA	50 U	NA	NA
Iron	NA	342	NA	718	NA	152	NA	117	119	NA	614	NA	669	NA	NA	312	NA	NA
Lead	NA	1.1 J	NA	2.1 J	NA	10 U	NA	10 U	10 U	NA	5 U	NA	5 U	NA	NA	1.6 J	NA	NA
Magnesium	NA	876,000	NA	845,000	NA	849,000	NA	837,000	837,000	NA	862,000	NA	871,000	NA	NA	670,000	NA	NA
Manganese	NA	37.7	NA	31.2	NA	35	NA	29.2	29.4	NA	27.6	NA	29.6	NA	NA	34.4	NA	NA
Mercury	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA
Nickel	NA	10 U	NA	10 U	NA	10 U	NA	10 U	10 U	NA	25 U	NA	25 U	NA	NA	10 U	NA	NA
Potassium	NA	270,000	NA	265,000	NA	272,000	NA	273,000	276,000	NA	280,000	NA	272,000	NA	NA	222,000	NA	NA
Selenium	NA	29 J	NA	29.6 J	NA	20.3 J	NA	24.4 J	19.4 J	NA	41.2 J	NA	42.3 J	NA	NA	17.5 J	NA	NA
Silver	NA	10 U	NA	10 U	NA	10 U	NA	10 U	10 U	NA	0.18 J	NA	0.2 J	NA	NA	10 U	NA	NA
Sodium	NA	7,330,000	NA	6,960,000	NA	7,020,000	NA	7,190,000	7,090,000	NA	6,960,000	NA	6,760,000	NA	NA	5,780,000	NA	NA
Thallium	NA	1.1 J	NA	1.1 J	NA	1 J	NA	1 J	1 J	NA	5 U	NA	5 U	NA	NA	1.2 J	NA	NA
Vanadium	NA	50 U	NA	50 U	NA	50 U	NA	50 U	50 U	NA	4.7 J	NA	25 U	NA	NA	50 U	NA	NA
Zinc	NA	100 U	NA	100 U	NA	100 U	NA	100 U	100 U	NA	50 R	NA	50 R	NA	NA	61.8 J	NA	NA
Wet Chemistry (MG_L)																		
Perchlorate	NA	0.002 U	NA	0.002 U	NA	0.002 U	NA	0.002 U	0.002 U	NA	0.002 U	NA	0.002 U	NA	NA	0.002 U	NA	NA
Total organic carbon (TOC)	8.8 J	NA	33 J	NA	11 J	NA	10 UJ	NA	NA	10 UJ	NA	10 UJ	NA	10 UJ	9 J	NA	6.6 J	5 UJ
Total organic halogens (TOX)	0.5 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	NA	0.1 UJ	NA	0.5 UJ	NA	0.2 UJ	0.02 UJ	NA	0.014 J	0.01 UJ
Total Petroleum Hydrocarbons (UG_L)																		
Oil and Grease	5,800 U	NA	11,000	NA	5,900 U	NA	5,700 U	NA	NA	5,400 U	NA	5,600 U	NA	5,600 U	5,700 U	NA	5,800 U	5,800 U
TPH-diesel range	120 U	NA	150 U	NA	100 U	NA	130 U	NA	NA	120 U	NA	92 U	NA	110 U	180 U	NA	120 U	120 U
TPH-gas range	100 U	NA	100 U	NA	34 U	NA	25 J	NA	NA	100 U	NA	100 U	NA	100 U	29 J	NA	100 U	100 U

Phase I and II Sediment Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01			MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04				MR04-SD05/SW05			MR04-SD06/SW06			MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09		MR04-SD10/SW10
Sample ID	MR04-SD01-06A	MR04-SD01-06B	MR04-SD01-07C	MR04-SD02-06A	MR04-SD02-07C	MR04-SD03-06A	MR04-SD03-07C	MR04-SD04-06A	MR04-SD04-06B	MR04-SD04-07C	MR04-SD04D-07C	MR04-SD05-06A	MR04-SD05-06B	MR04-SD05-07C	MR04-SD06-06A	MR04-SD06-06B	MR04-SD06-07C	MR04-SD07-06A	MR04-SD08-06A	MR04-SD08-07C	MR04-SD09-06A	MR04-SD09-06B	MR04-SD10-06A
Sample Date	04/01/06	04/17/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	04/17/06	09/07/07	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/17/06	04/02/06
Chemical Name																							
Volatile Organic Compounds (UG_KG)																							
1,1,1-Trichloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,1,2,2-Tetrachloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,1,2-Trichloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,1-Dichloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,1-Dichloroethene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2,4-Trichlorobenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2-Dibromo-3-chloropropane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2-Dibromoethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2-Dichlorobenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2-Dichloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,2-Dichloropropane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,3-Dichlorobenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
1,4-Dichlorobenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
2-Butanone	13 UJ	NA	12 U	18 UJ	14 J	18 UJ	12 U	12 UJ	NA	14 J	24 J	13 UJ	NA	18 U	62 UJ	NA	35 U	76 UJ	16 UJ	56 J	64 UJ	NA	60 UJ
2-Hexanone	13 UJ	NA	12 U	18 UJ	25 U	18 UJ	12 U	12 UJ	NA	19 U	26 U	13 UJ	NA	18 U	62 UJ	NA	35 U	76 UJ	16 UJ	63 U	64 UJ	NA	60 UJ
4-Methyl-2-pentanone	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Acetone	13 UJ	NA	12 U	18 UJ	36 J	18 UJ	12 U	7.4 J	NA	63	110 J	13 UJ	NA	8.7 J	62 UJ	NA	23 J	76 UJ	16 UJ	270	64 UJ	NA	60 UJ
Benzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Bromodichloromethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Bromoform	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Bromomethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Carbon disulfide	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	1.5 J	62 U	NA	3.7 J	76 U	16 U	63 U	64 U	NA	60 U
Carbon tetrachloride	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Chlorobenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Chloroethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 UJ	62 U	NA	35 UJ	76 U	16 U	63 U	64 U	NA	60 U
Chloroform	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Chloromethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Cyclohexane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Dibromochloromethane	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Dichlorodifluoromethane (Freon-12)	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Ethylbenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Isopropylbenzene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Methyl acetate	13 UJ	NA	12 U	18 UJ	25 U	18 UJ	12 U	12 UJ	NA	19 U	22 J	13 UJ	NA	18 U	62 UJ	NA	35 U	76 UJ	16 UJ	31 J	64 UJ	NA	60 UJ
Methyl-tert-butyl ether (MTBE)	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Methylcyclohexane	13 U	NA	12 U	18 U	25 U	18 U	12 UJ	12 U	NA	19 UJ	26 UJ	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 UJ	64 U	NA	60 U
Methylene chloride	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Styrene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Tetrachloroethene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Toluene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Trichloroethene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Trichlorofluoromethane(Freon-11)	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Vinyl chloride	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
Xylene, total	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
cis-1,2-Dichloroethene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
cis-1,3-Dichloropropene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
trans-1,2-Dichloroethene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U
trans-1,3-Dichloropropene	13 U	NA	12 U	18 U	25 U	18 U	12 U	12 U	NA	19 U	26 U	13 U	NA	18 U	62 U	NA	35 U	76 U	16 U	63 U	64 U	NA	60 U

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Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01			MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04				MR04-SD05/SW05			MR04-SD06/SW06			MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09		MR04-SD10/SW10
Sample ID	MR04-SD01-06A	MR04-SD01-06B	MR04-SD01-07C	MR04-SD02-06A	MR04-SD02-07C	MR04-SD03-06A	MR04-SD03-07C	MR04-SD04-06A	MR04-SD04-06B	MR04-SD04-07C	MR04-SD04D-07C	MR04-SD05-06A	MR04-SD05-06B	MR04-SD05-07C	MR04-SD06-06A	MR04-SD06-06B	MR04-SD06-07C	MR04-SD07-06A	MR04-SD08-06A	MR04-SD08-07C	MR04-SD09-06A	MR04-SD09-06B	MR04-SD10-06A
Sample Date	04/01/06	04/17/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	04/17/06	09/07/07	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/17/06	04/02/06
Chemical Name																							
Semi-volatile Organic Compounds (UG_KG)																							
1,1-Biphenyl	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2,2'-Oxybis(1-chloropropane)	430 U	NA	440 U	610 UJ	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 UJ	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 U	NA	2,000 U
2,4,5-Trichlorophenol	1,100 U	NA	1,100 U	1,500 U	2,400 U	1,500 U	1,000 U	1,000 U	NA	1,500 U	2,200 U	1,100 U	NA	590 U	5,200 U	NA	1,200 U	6,400 U	1,300 U	5,200 U	5,300 U	NA	5,000 U
2,4,6-Trichlorophenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2,4-Dichlorophenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2,4-Dimethylphenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2,4-Dinitrophenol	1,100 UJ	NA	1,100 U	1,500 U	2,400 U	1,500 UJ	1,000 U	1,000 UJ	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 UJ	NA	6,300 U	6,400 UJ	1,300 U	5,200 U	5,300 UJ	NA	5,000 UJ
2,4-Dinitrotoluene	NA	NA	440 U	NA	940 U	NA	400 U	NA	NA	610 U	870 U	NA	NA	590 U	NA	NA	1,200 U	NA	NA	2,100 U	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	440 U	NA	940 U	NA	400 U	NA	NA	610 U	870 U	NA	NA	590 U	NA	NA	1,200 U	NA	NA	2,100 U	NA	NA	NA
2-Chloronaphthalene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2-Chlorophenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2-Methylnaphthalene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2-Methylphenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
2-Nitroaniline	1,100 U	NA	1,100 U	1,500 U	2,400 U	1,500 U	1,000 U	1,000 U	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 U	NA	6,300 U	6,400 U	1,300 U	5,200 U	5,300 U	NA	5,000 U
2-Nitrophenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
3,3'-Dichlorobenzidine	430 U	NA	440 U	610 UJ	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 UJ	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 U	NA	2,000 U
3-Nitroaniline	1,100 U	NA	1,100 U	1,500 U	2,400 U	1,500 U	1,000 U	1,000 U	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 U	NA	6,300 U	6,400 U	1,300 U	5,200 U	5,300 U	NA	5,000 U
4,6-Dinitro-2-methylphenol	1,100 UJ	NA	1,100 U	1,500 U	2,400 U	1,500 UJ	1,000 U	1,000 UJ	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 UJ	NA	6,300 U	6,400 UJ	1,300 U	5,200 U	5,300 UJ	NA	5,000 UJ
4-Bromophenyl-phenylether	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
4-Chloro-3-methylphenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
4-Chloroaniline	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	1,200 U	2,100 U	NA	2,500 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
4-Chlorophenyl-phenylether	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
4-Methylphenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	54 J	2,100 U	2,100 U	NA	2,000 U
4-Nitroaniline	1,100 UJ	NA	1,100 U	1,500 UJ	2,400 U	1,500 UJ	1,000 U	1,000 UJ	NA	1,500 U	2,200 U	1,100 UJ	NA	3,000 U	5,200 UJ	NA	6,300 U	6,400 UJ	1,300 UJ	5,200 U	5,300 UJ	NA	5,000 UJ
4-Nitrophenol	1,100 U	NA	1,100 U	1,500 U	2,400 U	1,500 U	1,000 U	1,000 U	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 U	NA	6,300 U	6,400 U	1,300 U	5,200 U	5,300 U	NA	5,000 U
Acenaphthene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Acenaphthylene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Acetophenone	48 J	NA	440 U	74 J	100 J	62 J	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	130 J	2,100 U	NA	2,000 U
Anthracene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Atrazine	430 UJ	NA	440 U	610 UJ	940 U	580 UJ	400 U	410 UJ	NA	610 U	870 U	450 UJ	NA	590 U	2,100 UJ	NA	1,200 U	2,500 UJ	520 UJ	2,100 U	2,100 UJ	NA	2,000 UJ
Benzaldehyde	430 UJ	NA	440 U	610 UJ	98 J	580 UJ	400 U	410 UJ	NA	140 J	870 U	450 UJ	NA	590 U	2,100 UJ	NA	1,200 U	2,500 UJ	520 UJ	460 J	2,100 UJ	NA	2,000 UJ
Benzo(a)anthracene	430 U	NA	440 U	610 U	940 U	580 U	25 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Benzo(a)pyrene	430 U	NA	440 U	610 U	940 U	580 U	23 J	410 U	NA	610 U	870 U	450 U	NA	590 U	220 J	NA	1,200 U	2,500 U	520 U	300 J	2,100 U	NA	2,000 U
Benzo(b)fluoranthene	430 U	NA	440 U	610 U	940 U	580 U	26 J	410 U	NA	610 U	870 U	450 U	NA	590 U	440 J	NA	1,200 U	2,500 U	520 U	530 J	2,100 U	NA	2,000 U
Benzo(g,h,i)perylene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	190 J	2,100 U	NA	2,000 U
Benzo(k)fluoranthene	430 U	NA	440 U	610 U	940 U	580 U	25 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	490 J	2,100 U	NA	2,000 U
Butylbenzylphthalate	430 UJ	NA	440 U	610 U	940 U	580 UJ	26 J	410 UJ	NA	610 U	870 U	450 U	NA	590 U	2,100 UJ	NA	140 J	2,500 UJ	520 U	2,100 U	2,100 UJ	NA	2,000 UJ
Caprolactam	430 U	NA	440 U	610 UJ	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 UJ	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 U	NA	2,000 U
Carbazole	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Chrysene	430 U	NA	440 U	610 U	940 U	580 U	28 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	370 J	2,100 U	NA	2,000 U
Di-n-butylphthalate	430 U	NA	440 U	610 UJ	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 UJ	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 U	NA	2,000 U
Di-n-octylphthalate	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Dibenz(a,h)anthracene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Dibenzofuran	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Diethylphthalate	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Dimethyl phthalate	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Fluoranthene	430 U	NA	440 U	610 U	940 U	580 U	61 J	47 J	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	610 J	270 J	NA	2,000 U
Fluorene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Hexachlorobenzene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Hexachlorobutadiene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 UJ	520 U	2,100 U	2,100 U	NA	2,000 U
Hexachlorocyclopentadiene	430 UJ	NA	440 U	610 UJ	940 U	580 UJ	400 U	410 UJ	NA	610 U	870 U	450 UJ	NA	590 U	2,100 UJ	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 UJ	NA	2,000 UJ
Hexachloroethane	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Indeno(1,2,3-cd)pyrene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	170 J	2,100 U	NA	2,000 U
Isophorone	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Naphthalene	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Nitrobenzene	NA	NA	440 U	NA	940 U	NA	400 U	NA	NA	610 U	870 U	NA	NA	590 U	NA	NA	1,200 U	NA	NA	2,100 U	NA	NA	NA
Pentachlorophenol	1,100 U	NA	1,100 U	1,500 U	2,400 U	1,500 U	1,000 U	1,000 U	NA	1,500 U	2,200 U	1,100 U	NA	3,000 U	5,200 U	NA	6,300 U	6,400 U	1,300 U	5,200 U	5,300 U	NA	5,000 U
Phenanthrene	430 U	NA	440 U	610 U	940 U	580 U	37 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Phenol	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
Pyrene	430 U	NA	440 U	610 U	940 U	580 U	83 J	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	650 J	2,100 U	NA	2,000 U
bis(2-Chloroethoxy)methane	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
bis(2-Chloroethyl)ether	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U
bis(2-Ethylhexyl)phthalate	430 U	NA	440 U	190 J	940 U	110 J	37 J	410 U	NA	610 U	870 U	52 J	NA	63 J	250 J	NA	1,200 U	260 J	56 J	490 J	1,300 J	NA	1,400 J
n-Nitroso-di-n-propylamine	430 U	NA	440 U	610 UJ	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 UJ	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 UJ	2,100 U	2,100 U	NA	2,000 U
n-Nitrosodiphenylamine	430 U	NA	440 U	610 U	940 U	580 U	400 U	410 U	NA	610 U	870 U	450 U	NA	590 U	2,100 U	NA	1,200 U	2,500 U	520 U	2,100 U	2,100 U	NA	2,000 U

Phase I and II Sediment Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01			MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04				MR04-SD05/SW05			MR04-SD06/SW06			MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09		MR04-SD10/SW10
Sample ID	MR04-SD01-06A	MR04-SD01-06B	MR04-SD01-07C	MR04-SD02-06A	MR04-SD02-07C	MR04-SD03-06A	MR04-SD03-07C	MR04-SD04-06A	MR04-SD04-06B	MR04-SD04-07C	MR04-SD04D-07C	MR04-SD05-06A	MR04-SD05-06B	MR04-SD05-07C	MR04-SD06-06A	MR04-SD06-06B	MR04-SD06-07C	MR04-SD07-06A	MR04-SD08-06A	MR04-SD08-07C	MR04-SD09-06A	MR04-SD09-06B	MR04-SD10-06A
Sample Date	04/01/06	04/17/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	04/17/06	09/07/07	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/17/06	04/02/06
Chemical Name																							
Pesticide/Polychlorinated Biphenyls (UG_KG)																							
4,4'-DDD	1.8 J	NA	4.4 U	1,100	31	660	3.6 J	1.5 J	NA	4.3 J	5.6 J	11	NA	5.8 U	6.6 J	NA	2.5 J	25 U	1.2 J	23 J	41	NA	3.6 J
4,4'-DDE	1.1 J	NA	4.4 U	5.5 J	6.3 J	520	4.3	2.5 J	NA	7	7.1 J	5.2	NA	5.8 U	10 J	NA	2.1 J	12 J	9.1	27	74	NA	38
4,4'-DDT	4.3 U	NA	4.4 U	0.86 J	9.4 U	190	4 U	2 J	NA	6.1 U	8.7 U	4.8	NA	5.8 U	4.5 J	NA	2.1 J	25 U	1.1 J	11 J	4.8 J	NA	9.4 J
Aldrin	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	5.4 J	11 U	NA	9.9 U
Aroclor-1016	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Aroclor-1221	86 U	NA	89 U	120 U	190 U	120 U	82 U	83 U	NA	120 U	180 U	90 U	NA	120 U	420 U	NA	250 U	510 U	100 U	420 U	420 U	NA	400 U
Aroclor-1232	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Aroclor-1242	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Aroclor-1248	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Aroclor-1254	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Aroclor-1260	43 U	NA	44 U	61 U	94 U	58 U	40 U	42 U	NA	61 U	87 U	45 U	NA	58 U	210 U	NA	120 U	250 U	52 U	210 U	210 U	NA	200 U
Dieldrin	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	3.2 J	NA	12 U	25 U	0.74 J	23	4.3 J	NA	6.8 J
Endosulfan I	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
Endosulfan II	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U	5.2 U	21 U	21 U	NA	20 U
Endosulfan sulfate	4.3 U	NA	4.4 U	4.8 J	9.4 U	22	4 U	1 J	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U	5.2 U	21 U	85	NA	12 J
Endrin	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U	5.2 U	21 U	21 U	NA	4.1 J
Endrin aldehyde	4.3 U	NA	4.4 U	6.1 U	9.4 U	5.8 U	4 U	4.2 U	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U	5.2 U	21 U	21 U	NA	20 U
Endrin ketone	4.3 U	NA	4.4 U	2 J	9.4 U	1.5 J	4 U	0.51 J	NA	6.1 U	8.7 U	4.5 U	NA	5.8 U	21 U	NA	12 U	25 U	0.88 J	21 U	24	NA	8.2 J
Heptachlor	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
Heptachlor epoxide	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
Methoxychlor	22 U	NA	23 U	31 U	49 U	29 U	21 U	21 U	NA	32 U	45 U	22 U	NA	30 U	100 U	NA	63 U	130 U	26 U	110 U	110 U	NA	99 U
Toxaphene	220 U	NA	230 U	310 U	490 U	290 U	210 U	210 U	NA	320 U	450 U	220 U	NA	300 U	1,000 U	NA	630 U	1,300 U	260 U	1,100 U	1,100 U	NA	990 U
alpha-BHC	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
alpha-Chlordane	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	12	2.4 J	NA	9.9 U
beta-BHC	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
delta-BHC	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
gamma-BHC (Lindane)	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	11 U	11 U	NA	9.9 U
gamma-Chlordane	2.2 U	NA	2.3 U	3.1 U	4.9 U	2.9 U	2.1 U	2.1 U	NA	3.2 U	4.5 U	2.2 U	NA	3 U	10 U	NA	6.3 U	13 U	2.6 U	12	4.8 J	NA	9.9 U
Explosives (UG_KG)																							
1,3,5-Trinitrobenzene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
1,3-Dinitrobenzene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
2,4,6-Trinitrotoluene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
2,4-Dinitrotoluene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
2,6-Dinitrotoluene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
2-Amino-4,6-dinitrotoluene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
2-Nitrotoluene	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 U	200 U	200 U	120 U	200 U	NA	200 U
3-Nitrotoluene	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 U	200 U	200 U	120 U	200 U	NA	200 U
4-Amino-2,6-dinitrotoluene	99 U	NA	120 U	100 U	120 U	100 U	120 U	98 U	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
4-Nitrotoluene	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 U	200 U	200 U	120 U	200 U	NA	200 U
HMX	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 U	200 U	200 U	120 U	200 U	NA	200 U
Nitrobenzene	99 U	NA	120 U	100 U	120 U	100 U	120 U	30 J	NA	120 U	120 U	100 U	NA	120 U	99 U	NA	120 U	99 U	100 U	120 U	100 U	NA	100 U
Perchlorate	32 U	NA	NA	45 U	NA	43 U	NA	31 U	NA	NA	NA	33 U	NA	NA	150 U	NA	NA	180 U	38 U	NA	150 U	NA	140 U
RDX	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 U	200 U	200 U	120 U	200 U	NA	200 U
Tetryl	200 U	NA	120 U	200 U	120 U	200 U	120 U	200 U	NA	120 U	120 U	200 U	NA	120 U	200 U	NA	120 UJ	200 U	200 U	120 U	200 U	NA	200 U
GRAINSIZE(PCT)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GS08 Sieve 0.75" (19.0 mm)	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	100	NA	NA	NA	NA	NA	100	NA
GS10 Sieve 0.375" (9.5 mm)	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	100	NA	NA	NA	NA	NA	100	NA
Sieve No. 004 (4.75 mm)	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.8	NA	NA	96.5	NA	NA	NA	NA	NA	100	NA
Sieve No. 010 (2.00 mm)	NA	100	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	96.1	NA	NA	95.3	NA	NA	NA	NA	NA	100	NA
Sieve No. 020 (850 um)	NA	95.8	NA	NA	NA	NA	NA	NA	92.1	NA	NA	NA	89.7	NA	NA	94.1	NA	NA	NA	NA	NA	97.2	NA
Sieve No. 040 (425 um)	NA	47.8	NA	NA	NA	NA	NA	NA	47.9	NA	NA	NA	69.8	NA	NA	90.6	NA	NA	NA	NA	NA	91.5	NA
Sieve No. 060 (250 um)	NA	22.0	NA	NA	NA	NA	NA	NA	19.4	NA	NA	NA	56.7	NA	NA	88.8	NA	NA	NA	NA	NA	88.7	NA
Sieve No. 100 (150 um)	NA	19.8	NA	NA	NA	NA	NA	NA	13.7	NA	NA	NA	47.9	NA	NA	87.7	NA	NA	NA	NA	NA	85.9	NA
Sieve No. 140 (106 um)	NA	18.4	NA	NA	NA	NA	NA	NA	12.6	NA	NA	NA	44.0	NA	NA	86.5	NA	NA	NA	NA	NA	83.1	NA
Sieve No. 200 (75 um)	NA	16.1	NA	NA	NA	NA	NA	NA	11.8	NA	NA	NA	40.8	NA	NA	85.3	NA	NA	NA	NA	NA	80.2	NA

Phase I and II Sediment Raw Analytical Results
Expanded Site Inspection
Site UXO-04, Knox Trailer Park
MCB Camp Lejeune, North Carolina

Station ID	MR04-SD01/SW01			MR04-SD02/SW02		MR04-SD03/SW03		MR04-SD04/SW04				MR04-SD05/SW05			MR04-SD06/SW06			MR04-SD07/SW07	MR04-SD08/SW08		MR04-SD09/SW09		MR04-SD10/SW10
Sample ID	MR04-SD01-06A	MR04-SD01-06B	MR04-SD01-07C	MR04-SD02-06A	MR04-SD02-07C	MR04-SD03-06A	MR04-SD03-07C	MR04-SD04-06A	MR04-SD04-06B	MR04-SD04-07C	MR04-SD04D-07C	MR04-SD05-06A	MR04-SD05-06B	MR04-SD05-07C	MR04-SD06-06A	MR04-SD06-06B	MR04-SD06-07C	MR04-SD07-06A	MR04-SD08-06A	MR04-SD08-07C	MR04-SD09-06A	MR04-SD09-06B	MR04-SD10-06A
Sample Date	04/01/06	04/17/06	09/06/07	04/01/06	09/06/07	04/01/06	09/07/07	04/01/06	04/17/06	09/07/07	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/17/06	09/07/07	04/02/06	04/02/06	09/07/07	04/02/06	04/17/06	04/02/06
Chemical Name																							
Total Metals (MG_KG)																							
Aluminum	1,580 J	NA	265	15,400 J	17,500	6,380 J	1,330	5,120	NA	3,730	4,930	1,620	NA	3,180	7,550	NA	8,340	11,400	3,760	11,500	12,300	NA	16,800
Antimony	0.49 U	NA	6 U	0.72 U	12.4 U	0.65 U	0.39 J	0.59 UJ	NA	8.1 U	11.6 U	0.55 UJ	NA	7.2 UJ	2.8 UJ	NA	17 UJ	3.3 UJ	0.61 UJ	27.7 U	2.8 UJ	NA	2.7 UJ
Arsenic	4.1	NA	0.42 J	1.5 J	4.3	2.8 J	2.9	3.5	NA	1.1 J	1.9 J	1 J	NA	1.5	2.6 U	NA	4.6	3 J	0.59 J	4.8	3.1 J	NA	3 J
Barium	3.7 J	NA	3.6 J	60.3	30.4 J	7.9	1.5 J	36.9 U	NA	5.6 J	9.2 J	34.7 U	NA	3.6 J	178 U	NA	8.9 J	208 U	38.2 U	14.1 J	175 U	NA	167 U
Beryllium	0.12 J	NA	0.5 U	0.39 J	0.48 J	0.14 J	0.038 J	0.92 U	NA	0.073 J	0.1 J	0.87 U	NA	0.6 U	4.5 U	NA	0.14 J	5.2 U	0.96 U	0.36 J	4.4 U	NA	4.2 U
Cadmium	0.061 U	NA	0.5 U	0.09 U	0.14 J	1 U	0.45 U	0.074 U	NA	0.087 J	0.13 J	0.069 U	NA	0.063 J	0.36 U	NA	0.33 J	0.42 U	0.093 J	0.46 J	0.43 J	NA	0.33 U
Calcium	806	NA	128 J	1,620	2,860	1,010 U	338 J	922 U	NA	1,270	1,750	867 U	NA	601 J	8,590	NA	3,670	7,900	956 U	6,610	12,200	NA	9,370
Chromium	10 J	NA	0.84 J	10 J	8.8	9 J	6.8	8.7	NA	3.9	6.8	3.7	NA	4.8 J	7.3 J	NA	10.6 J	11.9	4.7	13.9	16.3	NA	19.8
Cobalt	0.14 U	NA	5 U	0.23 J	0.62 J	0.29 J	0.14 J	0.17 U	NA	0.3 J	0.45 J	0.16 U	NA	0.28 J	0.8 U	NA	1.4 J	0.94 U	0.17 U	1.6 J	0.79 U	NA	0.75 U
Copper	2.1 J	NA	2.5 U	3.7 J	5.2 U	3.5 J	2.2 U	14.1	NA	3.4 U	5.6 U	4.3 U	NA	1.7 J	199	NA	22	26 U	4.8 U	11.3 J	21.9 U	NA	20.8 U
Cyanide	0.18 U	NA	3.2 U	0.25 U	6.4 U	0.25 U	2.8 U	0.18 U	NA	4.6 U	6.3 U	0.19 U	NA	3.4 UJ	0.82 U	NA	9.6 UJ	1 U	0.2 U	15.3 U	0.81 U	NA	0.8 U
Iron	11,800 J	NA	682	2,640 J	4,410	4,920 J	10,800	6,480 J	NA	1,730	3,270	2,860 J	NA	3,300	4,160 J	NA	7,770	3,840 J	1,270 J	9,390	6,100 J	NA	5,630 J
Lead	6.3 J	NA	0.96 J	64.1 J	15.5	28.6 J	5.2	49.8	NA	6	7.7	5.4	NA	6.2 J	32.6	NA	37.2 J	33.6	16.9	47.5	92	NA	112
Magnesium	770 U	NA	200 J	1,380	3,310	1,010 U	491	922 U	NA	1,650	2,220	867 U	NA	952	7,720	NA	4,130	5,660	956 U	7,920	4,380 U	NA	4,160 U
Manganese	5.2	NA	1.5 U	12.4	13.3	5	4.9	3.3	NA	4.8	8.4	4.9	NA	5.6	20.7	NA	19.7	19.8	3.4	17.6	13.6	NA	13.6
Mercury	0.019 U	NA	0.12 U	0.064	0.076 J	0.06	0.044 J	0.073	NA	0.02 J	0.03 J	0.021 U	NA	0.057 U	0.19 J	NA	0.073 J	0.12 U	0.12	0.076 J	0.2 J	NA	0.24
Nickel	0.4 J	NA	4 U	2.9 J	3.1 J	1.9 J	0.58 J	0.81 J	NA	1.1 J	2.2 J	0.29 J	NA	4.8 U	2.6 J	NA	11.4 U	4.7 J	0.79 J	6.4 J	5.3 J	NA	5.1 J
Potassium	149 J	NA	499 U	588 J	1,110	381 J	446 U	922 U	NA	453 J	628 J	867 U	NA	464 J	4,450 U	NA	1,250 J	5,200 U	178 U	2,220 J	4,380 U	NA	4,160 U
Selenium	0.49 J	NA	0.42 U	0.7 U	7.2 U	0.63 J	3.1 U	0.86 J	NA	4.7 U	6.8 U	0.54 U	NA	4.2 U	4 J	NA	9.9 U	3.2 U	0.59 U	16.2 U	3 J	NA	4 J
Silver	0.11 U	NA	1 U	0.16 U	2.1 U	0.14 U	0.89 U	0.13 U	NA	1.4 U	1.9 U	0.12 U	NA	1.2 U	0.62 U	NA	2.8 U	0.73 U	0.13 U	4.6 U	0.61 U	NA	0.58 U
Sodium	1,800	NA	1,340	1,580	12,900	1,140	1,290	1,090	NA	6,250	8,370	867 U	NA	3,750	11,700	NA	15,100	7,300	956 U	33,400	4,380 U	NA	4,160 U
Thallium	0.34 U	NA	2.5 U	0.5 U	5.2 U	0.44 U	2.2 U	0.41 U	NA	3.4 U	4.9 U	0.38 U	NA	3 U	2 U	NA	7.1 U	2.3 U	0.42 U	11.5 U	1.9 U	NA	1.8 U
Vanadium	25.2 J	NA	1.3 J	15.3 J	14	14.2 J	21.7	17	NA	5.3 J	7.2 J	6.1 J	NA	6.6	44.5 J	NA	18.8	13.4 J	5.2 J	27.4	21.5 J	NA	27.4 J
Zinc	6.9 J	NA	6 U	18 J	11.9 J	56.7 J	6.8	9.9	NA	13.9	13	4.8	NA	8	39.9	NA	68.7	22.8	18	91.2	90.1	NA	63.5
Wet Chemistry (MG_KG)																							
% Solids	77	NA	NA	54	NA	57	NA	80	NA	NA	NA	74	NA	NA	16	NA	NA	13	64	NA	16	NA	17
Perchlorate	NA	NA	0.0026 U	NA	0.0055 U	NA	0.0024 U	NA	NA	0.0037 U	0.0052 U	NA	NA	0.0032 U	NA	NA	0.0077 U	NA	NA	0.025 U	NA	NA	NA
Total organic carbon (TOC)	9,700	NA	NA	60,000	NA	18,000	NA	18,000	NA	NA	NA	9,000	NA	NA	420,000	NA	NA	410,000	50,000	NA	270,000	NA	420,000
Total organic halogens (TOX)	47 UJ	NA	NA	34 UJ	NA	39 UJ	NA	47 UJ	NA	NA	NA	35 UJ	NA	NA	134 UJ	NA	NA	150 UJ	43 UJ	NA	166 UJ	NA	144 UJ
pH	6.2	NA	NA	6.2	NA	5	NA	6	NA	NA	NA	4.6	NA	NA	5.6	NA	NA	6	4.8	NA	6.3	NA	5.6
Total Petroleum Hydrocarbons (MG_KG)																							
Oil and Grease	320 U	NA	NA	440 U	NA	430 U	NA	300 U	NA	NA	NA	330 U	NA	NA	1,500 U	NA	NA	1,900 U	380 U	NA	1,800	NA	1,500 U
TPH-diesel range	14 U	NA	NA	10 U	NA	180	NA	30 U	NA	NA	NA	9.8 U	NA	NA	130	NA	NA	290	30 U	NA	120 U	NA	110 U
TPH-gas range	0.13 U	NA	NA	0.18 U	NA	0.18 U	NA	0.12 U	NA	NA	NA	0.13 U	NA	NA	0.62 U	NA	NA	0.76 U	0.16 U	NA	0.63 U	NA	0.59 U

Notes:
U- Analyte not detected
J- Reported value is estimated
UJ- Analyte not detected. Quantitation limit is imprecise
NA- Not analyzed
Shading represents detection

Appendix K
Photos of Field Events

Photo 1: Knox Trailer Park before mobile homes were removed (April 2005)

Photo 2: Vegetation before clearing of site (January 2006)

Photo 3: DGM mapping (February 2006)

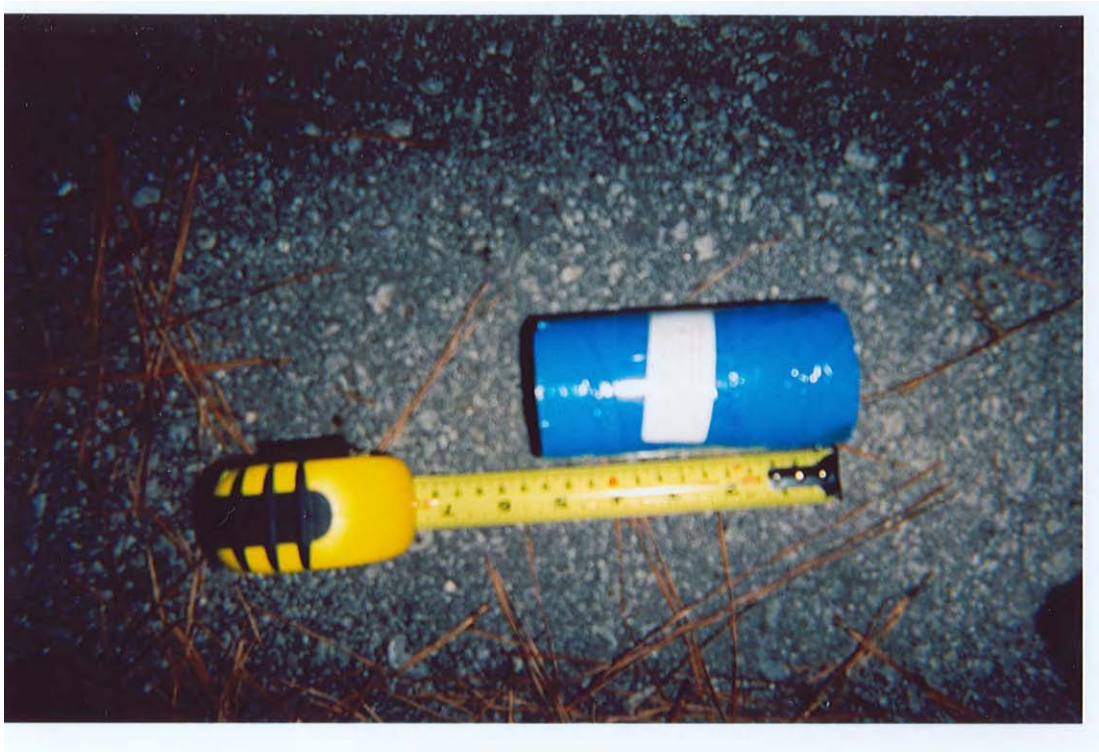

Photo 4: Seed item used at Site UXO-04 during Intrusive Investigations as a quality control (January 2007)

Photo 5: Seed item in hole to be buried (January 2007)

Photo 6: Phase II sample location surveying (August 2007)

Photo 7: Phase II vegetation clearing machinery (October 2007)

Photo 8: Phase II sampling staging area (September 2007)

Photo 9: Phase II groundwater sampling (September 2007)

Photo 10: Phase II surface soil sampling locations (September 2007)

Photo 11: Phase II subsurface soil sampling (September 2007)